AJBS
The Association of
Japanese Business Studies

Proceedings of the
33rd Annual AJBS Conference
June 24-25, 2021
Online

AJBS 2021 Annual Conference, online
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Determinants for Removing or Remaining of Expatriate Outsiders: Control and Trust Dynamics in Foreign Subsidiary Management of Japanese MNCs Over Time

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Determinants for removing or remaining of expatriate outsiders: Control and trust dynamics in foreign subsidiary management of Japanese MNCs over time

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ABSTRACT

This paper examines determinants for either removing or remaining expatriate outsiders in foreign subsidiary management over time. We strived to clarify 'how HQs' trust or distrust aspects influence the subsidiary control and management dynamics in each stage of the early, middle, and later (to be expected)'. The recent study recalls building trust is a pre-condition for the MNCs' internationalization, and the degree of control varies depending on the firm's specific contexts. Nevertheless, there are lacking facets: Tracing the changes in the dynamics in foreign subsidiary management in longitudinal views over time; and, clarifying intra-organizational mechanisms with determinants for removing or remaining of expatriate outsiders after the most intensive foreign subsidiary development. We selected two Japanese manufacturing MNCs in Russia, given an in-depth qualitative study in comparison. We found that it depended on HQ's trust or distrust to local employees' capabilities in the middle stage of foreign subsidiary development, given physical removing or remaining of expatriate outsiders; and, there was only a 'control' strategy in the early stage of foreign subsidiary development for both MNCs. Our findings contribute to the theoretical extension of liability of outsidership and upgrading practical managerial applications in the IB area.

Keywords: Control and trust dynamics, foreign subsidiary management, Japan, liability of outsidership, Organizational structure, Parent-subsidiary relationships

A Study on Activation of Japan Open Innovation?
Based on Comparative Analysis with US and China Management System?

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A Study on Activation of Japan Open Innovation
—Based on Comparative Analysis with US and China Management System—

Abstract

The purpose of this study is to propose measures to activate open innovation of Japanese companies. Japanese companies are said to be inferior to US companies and Chinese companies in promoting open innovation. In the United States, open innovation is performed by existing large companies in collaboration with external venture companies and universities. Chinese companies are also good at reversible open innovation that incorporates advanced technology and adds new value. If Japanese companies are generally behind Chinese companies, there may be a difference in the structure of corporate management between Japan, US and China. Therefore, the fundamental cause is considered based on the theory presented from the comparison of management systems of US, Japanese and Chinese companies. The barriers to Japanese open innovation are the special community and leadership created by membership-type employment of Japanese companies. From this consideration, proposals are made for top leadership that creates an open community.

1. Introduction

1.1. Background

Chesbrough (2003) defined open innovation as follows: "a paradigm that assumes that firms can and should use external ideas as well as internal ideas, and internal and external paths to market, as the firms look to advance their technology". Chesbrough & Bogers (2014) defined it as "a distributed innovation process based on purposively managed knowledge flows across organizational boundaries, using pecuniary and non-pecuniary mechanisms in line with the organization's business model". This is due to changes in the way of innovation in the world. With the background of the evolution of IT technology, global and open businesses led by venture companies have become mainstream. Among them, Japanese companies are said to be working on open innovation, but they are inferior to American and Chinese companies. It is thought that universities, venture companies and emaging cuntry's companies are subjects for open innovation, but there are differences in their relationships and efforts. Therefore, it is necessary to clarify the difference. From this consideration, it is also necessary to propose measures to activate Japanese open innovation.

1.2. Purpose

Generally, if Japanese companies are inferior to US and Chinese companies in terms of open innovation, there may be problems in open innovation in the structure of Japanese management. The purpose of this study is to clarify the cause by comparing the theory of realizing open innovation in the US and China with the theory of Japanese management. Therefore, it is necessary to clarify the difference. From this consideration, it is also necessary to propose measures to activate Japanese open innovation.

2. Previous Research

This chapter first reviews previous studies on Japanese-style management and Japanese innovation systems. Next, previous studies on US and Chinese corporate management to promote open innovation will be reviewed. In the next chapter, a discussion will be conducted based on these comparisons.

2.1. Japanese-style Management and Japanese Innovation Systems

Abbegren (1958) found life-long employment, seniority, and corporate unions as characteristics, and called them “three kinds of sacred treasures”. In Tachibanakawa (2007), these three kinds of sacred elements are all related to labor-management relations, so labor-management relations are the central element of Japanese-style management, and Japanese-style management is coordinated with labor-management relations. Based on the above, it is said that the management aims to maximize employee profits. Hamaguchi (2013) stated that membership-based societies were created by the employment of new graduates and life-time employment to create a membership-type employment system, and the unique employment of Japan. In order to find a job in a major Japanese company, you must go through job hunting for several months before graduating from university. Joining a company means becoming an employee as a member of the company. After joining the company, many

Japanese spend as lifetime companions in the company. Researchers believe that Japanese management in the 1950s has not changed significantly, although there has been some change.

Hamaguchi (2013) describes the origin of the Japanese management system as follows. New graduates were preferentially hired to secure the labor force in the military industry during World War II. At the same time, labor practices for life-time employment, such as the prohibition of changing jobs from the military industry, were created. In addition, the Supreme Court's case law, rather than labor laws, has allowed companies to hire students who fit the company in terms of thinking and philosophy rather than job aptitude and expertise. This kind of labor policy has encouraged universities to provide students with unnecessary knowledge, handing out students as materials without unfavorable knowledge to companies, and then promoting human resources policies that allow companies to nurture material students through OJT. As a result, a system has been created in which all men in general positions can all become managers as executive candidates. This has a significant positive impact on the mediocre middle-class motivation. In other words, the non-elite of on-site worked very hard. In addition, life-time employment and seniority ranks created members whose promotion was stopped after the age of 50, which led to the middle-aged and seniors not working and managers without subordinates to manage. There are many advantages to this Japanese management mechanism. Rather than filling in the vacancy from the external labor market, it is possible to hire a large number of new university graduates as young workers, with retirement and company-scale growth. In the developed countries as a whole, the low growth after the oil crisis led to the recession, and young workers lost a lot of jobs, causing social unrest. On the other hand, in Japan, although there was a problem of dismissal of middle-aged people, there was no problem of unemployment for young college graduates.

In addition, Japanese management has great advantages. This is the activation of in-house innovation. The middle class played a leading role in leadership for innovation in Japanese companies in the 1980s. Nonaka (1988), Nonaka (1990), and Nonaka & Takeuchi (1995) found the innovation system of Japanese companies that promote closed innovation through organizational knowledge creation based on middle up-and-down rather than top-down. Middle up-and-down refers to the middle moving behavior between top managers and regular employees. Middle plays the role of advocating on-site employees' voices and making recommendations to top management, and transmitting unclear messages sent by top management to the site in an easy-to-understand manner. A management system that aims to create new value and develop business through middle up and down has been considered an effective system for improving management results in an environment where changes are rapid and prompt decision making is required. Innovation leaders drawn by Nonaka and Katsumi (2007) were middles. And these middles lead organization vividly. It is natural to think that organizational knowledge creation through middle up and down is the strength of Japanese companies that are created from new graduate recruitment and lifetime employment. Membership-type employment system has a strong sense of friendship and high motivation, and they compete intensely side by side. All of them will be promoted to managerial positions until they are in their 40s. These middle-class companies have been leading Japanese companies by creating sustaining innovations and closed innovations through the creation of organizational knowledge.

And some of the extraordinary middles have emerged, implementing corporate reforms and creating disruptive innovation. Kanai (1991) has described a revolutionary middle that transforms the internal organization and creates new value. These portrayed the restructuring of companies in the late 80s by the middle. A representative example of the revolutionary middle is Yasuo Matsui, a project manager who developed dry beer in the 1990s Asahi Brewery. He created a market share reversal between Kirin Brewery and Asahi Brewery. The heavyweight project manager of Toyota Motor, drawn by Fujimoto (2003), is also a revolutionary middle.

Takahashi (2004) mentions as follow. Japanese seniority is an efficient system that raises the motivation of the middle and does not require enormous energy to be spent on subordinate personnel evaluation. Therefore, the instant performance-based wage principle should be abolished. He argued that he should return to seniority. In performance-based wage principle, the middle job is to monitor the work of subordinates, and the middle was bureaucratized.

Saito (2015) says that only a “Tea Monk” will succeed in the combination of life-time employment, which is Japanese management from the perspective of social psychology, and instant performance-based. “Tea Monk” is a person who performs only actions that powers like. Originally, in the seniority system based on lifetime employment, the same generation was promoted uniformly to some extent, so it was not necessary for the boss to spend a great deal of energy on fair and impartial personnel evaluations. And it was not necessary to acquire that ability. For this reason, there is no training for fair and impartial evaluation. Also, the system to prevent the evaluator from making an unfair evaluation is not in place or does not function substantially. Therefore, since the evaluation is subjective, it is said that the subordinate who takes the action preferred by the boss who is not related to the outcome is evaluated. In addition, because the boss who emphasizes human relations has discretion, his subordinates are willing to take action as “Tea Monk”. Seniority needs emphasis on human relations, and bosses

who grew up in seniority have a characteristic of emphasizing human relations. In other words, Japanese superiors began to evaluate subordinates who had good relationships with them. The middle will also take their boss's favorite actions to gain benefits from lifetime employment. For this reason, the middle will take an inward orientation and say that it will abandon the customer orientation.

According to Ota (2017), the division of work in Japanese companies is vague. It is said that it was a strength in the age of seniority because employees helped each other's work. However, it is said that it is difficult to conduct fair personnel evaluations appropriately if a performance-based approach is introduced with an employment system with vague job assignments. However, as a result, the employment system was not reformed, and the introduction of performance-based measures was forced with leaving vague criteria for subordinate compensation and promotions. In order to make an unreasonable evaluation even though it is practically impossible to evaluate fairly, it is said that superiors are evaluating subordinates according to their personal preferences.

As mentioned above, if the middle gives priority to the boss and top preferences, the middle up and down found by Nonaka (1988) may not already exist. In case of seniority, the middle can neglect the boss's personal subjective preference and can execute up-and-down actions. To put it simply, up-and-down means rebellion from the on-site against mediocre bosses and tops who cannot innovate. You can't do up-and-down actions if you watch out for the top or the boss. The middle is also an on-site manager, but there is a possibility that the subordinates on the site have no longer communicated the facts to the middle. Even if they discover a problem that will be a seed for innovation on the ground, they may not communicate if it differs from the preferable thing of their boss.

Ota (2017) mentions that the performance-based wage principle adopted by Japanese companies aims to increase employee motivation by making small evaluation differences. However, when there is a need for flexible thinking that responds to creativity and market changes, performance-based principle that focus on slight ordering and selection within the organization do not function. Really creative achievements should have value beyond the framework of a company's performance compensation, but the current system that cannot be given a little difference will not raise motivation. And, for example, the value of achievements that change the world, such as the invention of the blue LED, cannot be evaluated with an index that focuses on ordering and selection. Therefore, it is said to inhibit motivation that demonstrates creativity beyond the supervisor's instructions. And the middle becomes a role to manage and evaluate subordinates' “motivation” by making a slight difference, and it is no longer a subject that demonstrates creativity. In other words, Japanese-style performance-based principle hinders innovation.

On the other hand, most of the tops in Japan have been said to be of the “Omikoshi” type. “Omikoshi” is a god's vehicle with a stick next to it, and the god in it does nothing. In order for middle up and down to function, it is not necessary to have a strong and important role for the top of the Japanese company. And the Japanese-style “Omikoshi” tops ride on the activities of the middle quietly. According to Hirata (2006), the Japanese management was “Omikoshi” management, and the management was only expected to ride on "Omikoshi". And The middle persons carrying “Omikoshi” were more capable than the Top management riding “Omikoshi”.

Figure1 Omikoshi
Quote from https://www.irasutoya.com/2013/09/blog-post_7659.html

Here are the following questions. Althouth there are middles that causes sustained innovation and an excellent middle that causes disruptive innovation, why did an active middle like them became top as the “Omikoshi” type? Why can't the middle that innovate rise to the top? The answers to these questions are as follows. Yashiro (2011)

and Katsube (2019) answer these questions. The intense promotion competition by tournament, which is one of the Japanese-style employment systems, majority of candidates are ordinary people even if there are strong leader candidates. It is said that a strong leader cannot be top because he is recieved centralized disturbance from ordinary people. In Europe, America and China, there is no such practice. At first glance, this is called a tournament-type promotion competition, but it is not a competition for promotion but a survival competition from dropping out. It is a competition in which the middle people who have been promoted side by side until their 40s drop out side by side with each other. In other words, it is not a competition that goes one step ahead of others in performance, but a patience competition for waiting for someone to drop out. This tournament-type promotion competition is a negative effect of membership-type employment that comes from the recruitment of new graduates and lifetime employment. Tournament-type promotion competition has the problem of sabotage rivals due to the nature of relative evaluation. For example, obstruction takes various forms such as spreading wrong gossip about rivals, hiding important information, stealing and destroying rival outputs. And because the players who take risks and make efforts and challenges are conspicuous and intensively obstructed, they discovered from simulation that it was the remaining condition that they did not do anything and pulled the feet of others thoroughly. In other words, it is clear that those who continue to win the tournament-type promotion competition in their 50s are those who keep pulling their feet without doing anything (without challenging). This is thought to be the cause of the birth of the “Omikoshi” type top. In other words, it can be seen that there is a serious flaw in Japanese management. In other words, it is easy to expect that the revolutionary middle that Kanai (1991) has drawn will be the first target of concentrated disturbance and drop out of the tournament first.

Another disadvantage of Japanese management based on membership-type employment is as follows. Tsuda (1981), Hazama (1986), and Mito (1991) mention that the Japanese-style employment system was an employee fate community where the company and community were the same. Employees of the same quality by recruiting new graduates work in life-time employment, which brings strong loyalty and diligence to employees. According to Imaeda (2008), in the house-type organizational logic, even the personal hobby and voting behavior are bound by the company. Even though it is part of an individual's human rights to decide on his own hobbies and voting behavior, he cannot. The company binds individuals, which is very tight. And the company as home is exclusive and discriminatory. The company as home means to be exclusive and discriminatory for traitor who is a friendly person who does business with people outside the company, or who starts a venture company with his professional ability independent of the company. As a result, entrepreneurs are subject to exclusion (ostracism) and cannot receive support from the community of the company. Within Japanese employment practices, becoming independent from the company results in the loss of the community and the establishment of a venture is extremely risky.

According to previous researches, until around the 1990s, membership-type employment practices for Japanese-style management generated a dynamic middle that produced sustainable and disruptive innovation within the organization. And they have grown and maintained Japanese companies through their organizational knowledge creation. On the other hand, the competition to promote from the middle to the top is a tournament-type promotion competition, and it is thought that it has created a “Omikoshi” style top without challenge orientation. Since the tournament-type promotion system has not been reformed, most of the top of Japanese companies are still in the “Omikoshi” style. In addition, the place where the middle plays an active part is mainly internal and closed within the organization. The middle has become a mere manager by the performance-based wage principle and is no longer the subject of innovation. In open innovation, the exclusive and discriminatory part of Japanese-style management remains, thus eliminating those who expand the community outside the organization, and never supporting those who founded venture companies independently betrayed the community do not do. These are the merits and demerits of Japanese management through membership-type employment.

2. 2. Open innovation management system in US and Chinese companies

According to Nobeoka (2006), changes in the “architecture” that has made Japanese innovation systems effective so far have occurred worldwide. This is because it has shifted from the integral type innovation by vertical integration, which was the main role of the past industiries, to the new modular type innovation by international horizontal division of labor. The United States and China are good at international horizontal division of labor and modular, and Japan is good at vertical integration and integral. Open innovation is relatively easy to achieve by combining modules produced by international horizontal division of labor. As a result, Japanese companies are not good at open innovation. The reason why Japanese companies have been good at closed innovation through integrals in vertical integration is due to middle up and down.

Iansiti & Levien (2004) found leadership to create a sound business ecosystem for complementary ventures to become the center of a new innovation system. The subject who took the leadership was keystone. Keystone was

derived from an ecosystem study by Paine (1966). According to Paine (1966), there are a few or a single species that are essential for the health of the ecosystem to cultivate diverse species. He called it the keystone species. He discovered that walruses, wolves, and starfish are keystone species. Keystone is the stone at the top of an arched building. It is the most important stone in the building because the building collapses when the stone is removed. Species that play a role in applying the concept to ecosystems and stabilizing the entire ecosystem are called keystone species. In Yellowstone National Park, elks increased as wolves were extinct. Due to the increase in elk, the vegetation in the park was disturbed and the ecosystem health was lost. In other words, biodiversity such as butterflies and insects was lost. So, when the wolf was reintroduced into the park, the wolf preyed on the elk. The decrease in elk restored the health of the ecosystem in the park, the poplar forest grew, the beaver riverbank appeared, and the diversity of insects such as butterflies was restored. Ecosystem health is biodiversity, but when applied to business, it can be seen as an industrial environment where various niche players are founded one after another. The existence of various niche players is considered to be the source of open innovation. Poplar forests are commons in human society and open platforms from the perspective of open innovation in industry. A wide variety of different types of large companies, SMEs, and venture entrepreneurs share an open platform. The platform will not be activated unless someone conserves its health and cracks down on the “rogue” who eats the commons on its own.

Gawer & Kusmano (2002) drew a case of leadership on open platforms. That is platform leadership. They portray that a large number of ventures have flourished as complements vendors for Intel's MPU under Intel's then-time CEO Andrew Grove's leadership. Gawer & Kusmano (2005) studied the leadership in detail with the help of Grove, who was then CEO of Intel. The leadership is as follows. He act fairly for the entire ecosystem to earn the trust of complementary goods companies. And he make important technical information open, abandon licensing revenue from technical standards, and make decisions to spin off standardized groups to become independent and neutral. In addition, there will be an information barrier internally by separating the organization that actively innovates complementary goods companies and the organization that invests directly in the complementary goods market. The top will resolve conflicts between departments. The top created a culture that allowed ambiguity that different groups could pursue conflicting goals. Grobe (2017) creates an objective framework for resolving conflicts, and the resulting culture is called a “fair culture”. These are fostering decision-making and organizational culture that can only be made at the top. Gower & Kusmano (2005) defines these as platform leadership that affects the innovation of complementary goods companies across corporate boundaries. The essence of platform leadership is thought to be fair decision-making and action across organizations. If this is compared to an ecosystem, Grobe has taken keystone leadership to protect the environment of the poplar forest, a common land. Keystone leadership be leadership to create an open community in an open common area.

According to Nonaka et al. (2013), Chinese companies are creating competitive knowledge that can be top-down leaders. Xu (2006, 2011), based on interviews with Zhang Ruijin of Haier, Liu Chuanzhi of Lenovo, and Ren Zhengfei of Huawei, they are always strong leaders who can think of what to do next and persuade others. The tradition of Chinese individualism is the foundation for the birth of a strong leader, and the knowledge creation of that leader is the driving force for the growth of Chinese companies. And China's strong leaders can create open innovation involving outside companies. According to Xu (2015), China's open innovation will incorporate innovation from companies in developed countries with open innovation and combine it with new innovations in global resources. And because it is optimizing by eliminating waste in the highly competitive Chinese market, it is not cutting-edge, but the value will increase, so it will flow back to the developed country market. He says reverse innovation means that innovation flows back to developed countries.

Nishiguchi et al. (2016) found Chinese Wenzhou merchants who create new businesses around the world across borders. Wenzhou merchants are Chinese merchants who create global open innovation. This research discovered Wenzhou merchants’ leaders who have both characteristics of “jumping” to expand the network across borders and also “moving around” to expand the network among Wenzhou merchants. But they can stay in the Wenzhou merchant community, continue to convey disparate information to the community, and include the jumped leaders without excluding from the community. Since such communities prospered through open innovation, it was discovered that even people who seem to have no ability (for example, illiterate who dropped out of elementary school) can start a business and continue their business. What can be seen from this is the leadership that executes a jump-and-moving around hybrid that creates open innovation. Yoshimura (2011) answers the question of why Chinese merchants can jump and collaborate with the outside or allow members who leave the organization as a result of entrepreneurship. There is no new graduate batch recruitment and lifetime employment in Chinese corporate society, so the company and the community do not match. More than that, the Chinese are more active in expanding their networks and belonging to multiple communities, and the Chinese connections are petal-shaped. Chinese people prefer personal communities over companies. According to Hamaguchi (2013), China and US are

job type employment societies, not membership type employment societies. Only Japan is a membership-type employment society. The job type is a method in which a "work" is properly decided, and a "person" is applied to it. And all countries except Japan are job-type.

Nakamura (2013) argues that the speed of decision-making is crucial for open innovation with venture companies. Venture companies must make cutting-edge technology into production in a hurry and recover the investment cost from the market. Large companies selected by ventures as platforms may need leadership to quickly make decisions, which may lead to other companies if they are late. US and China top management have fast top-downs, so decision making is fast. On the other hand, open innovation of Japanese companies has a problem in the speed of decision-making at the top.

According to previous research reviews on the management of open innovation, the community in US and China is not the same as the company due to job type employment practices. And the top leader actively expands the community to the outside and protects the health of the ecosystem environment such as platforms. This means that open innovation management. And the top leader can do top-down management and the decision-making is fast.

One of the representative of US open innovation companies is Google. According to Anderson (2009), Google will not allow managers like the MBA to evaluate performance of engineers, including the middle, subjectively. Engineers' performance evaluation is objectively determined by how much users in the market use software developed in the field. These evaluations are so-called "adaptationism". According to Ota (2008), "adaptationism" is not a measure of the internal valuation scale of an organization, but a performance evaluation philosophy that is measured by external scales such as from rapidly changing markets and customers. Haier in China is a representative of open innovation Chinese companies that have grown by incorporating innovations from companies in developed countries. Ota (2008) mentions that Haier has an "adaptationism" evaluation system linked to the market Haier calls the "Market Chain". Many Chinese companies have also an "adaptationism" evaluation. On the other hand, Japanese performance-based principles are generally evaluated by managers based on internal logic. Japanese companies with a seniority system until around 1990 were said to have been voluntarily subjecting them to tacit and adaptive human resources in the field, including business partners and customers. From this, it seems that until around the 1990s, Japanese companies should have been good at open innovation. A Japanese representative middle person who created open innovation is Toshifumi Suzuki, who founded Seven-Eleven Japan by taking innovation of a convenience store from the US, which is an advanced distribution country.

3. Consideration

According to the previous research on the management of open innovation, it can be considered as follows. In the US and China, the employee community is not the same as the company due to employment practices that are said to be different from Japan. Both US and Chinese companies have excellent top leaders who actively expand their communities to the outside and protect the health of the ecosystem environment that creates communities such as platforms. The management they perform is management for open innovation. On the other hand, the characteristic of Japanese type management is that the excellent and highly motivated middle class brought about by membership-type employment causes closed innovation. It is thought that the strength of Japanese manufacturing sites comes from here. However, there is a possibility that there is a problem in the top leadership in Japanese companies for open innovation outside. Table 1 below summarizes previous researches.

Table 1 Open Innovation Management and Japanese Management Summary of Previous Research

	US company	Chinese company	Japanese management
Innovation open or closed	Open Innovation (introduced from startups and universities), including User innovation	Open Innovation (introduced from companies in developed countries) Includes User Innovation and Reverse Innovation	Closed Innovation
Major innovation types	Disruptive innovation	Disruptive innovation	Sustainable innovation
Innovation architecture	Modular type	Modular type	Integral type
Industrial structure	International horizontal division of labor	International horizontal division of labor	Vertical integration
Place of	Community	Community	Organization

Knowledge creation			
The subject of innovation	Top management with keystone-type leadership or platform-type leadership,	jump-type and movement-type hybrid leadership	An excellent and motivated up-and-down & Transformational middle generated by membership-based employment
Where innovation occurs	Open community and open platform as commons	Open community and open platform as commons	(However, in recent years, up-and-down middles may have become extinct due to performance-based wage system)
Community form	Open community	Petal-shaped community	Company internal organization as a closed community
Community nature	Respect and support those who prefer to work with outsiders and start up their own businesses	Respect and support those who prefer to work with outsiders and start up their own businesses	Closed community in a company born from membership-based employment
Top characteristics	Top-down and Fast decision making	Top-down and Fast decision making	I don't trust people who work with outsiders and don't support people who have started an independent business as traitors.
Performance evaluation system	Objective evaluation from the market based on "adaptiveism"	Objective evaluation from the market based on "adaptiveism"	Top-down decision making is not possible due to “Omikoshi” type top management. They make decisions after waiting for consensus from middle up and down. Decision making is slow.

And the research question (RQ) extracted from the comparative analysis of Japanese-style management related to the above-mentioned innovation and previous research related to open innovation is as follows.

RQ1: What is the leadership that creates open innovation?

RQ2: Why can the top leaders of US and Chinese companies create open innovation?

RQ3: Why are there leaders who create open innovation in US and Chinese companies?

RQ4: Why are there no top leaders creating open innovation in Japanese companies?

RQ5: Why did Japanese companies become unable to create sustainable and disruptive innovation as in the 1980s?

And we interviewed for the above RQ answer hypothesis. The interviews were conducted by one foreign manager of a Chinese business manager, one Japanese president of a Chinese subsidiary, and two Japanese presidents of a US subsidiary. A semi-structured interview was conducted on the above RQ items. Below is a table summarizing the interview.

Table 2 Summary of research questions and interview results

RQ	Interview Results Summary
RQ1: What is the leadership that creates open innovation?	Expand your community by moving around and jumping. Strive to resolve community conflicts of interest. Measure the prosperity of community members. It creates community knowledge. Make quick decisions using a wealth of external networks. Decision-making is correct because it is based on appropriate external information.
RQ2: Why can the top leaders of US and Chinese companies create	The top of US companies and Chinese companies manage from the top down, so decision making is fast. And that decision is mostly correct. It can

open innovation?	make decisions by gathering appropriate information from a human network with external expertise. Chinese companies are quick to make top decisions to work with outside companies in profitable business. The top will expand their personal connections, search for business and launch new businesses.
RQ3: Why do top Americans and Chinese companies create top innovations?	The top of US and Chinese companies are chosen from young people with an entrepreneurial spirit to think about new businesses. Such people with an entrepreneurial spirit is respected and become top from a young age. The person who always thinks what to do next is chosen.
RQ4: Why are there no top leaders creating open innovation in Japanese companies?	Japanese companies are not particularly good at open innovation. The human resources remaining in the current Japanese companies have not had the experience of starting up new businesses since they were young. Human resources who started a new business when they were young were pulled from the same generation when they were young, and they were disliked by them and were in Western companies. Even if it remains in a Japanese company, it remains in the head office and is sent to a subsidiary. Since the selection of the Japanese president is a struggle, the “Omikoshi” type still survives. Japanese middle-aged companies may also lead open innovation as the top of overseas subsidiaries. When he returns to Japan, he is a candidate for the president, but is unable to do so because he is forced to re-adapt to Japanese management. And the stake that comes out against it is beaten, pulled, and sent to the subsidiary.
RQ5: Why did Japanese companies become unable to create sustainable and disruptive innovation as in the 1980s?	The emphasis on capital efficiency has made it impossible to conduct unforeseeable research and development. Engineers and middle leaders (section managers) are also doing research and development while scolding the boss's face on a performance basis. In the past, there were managers and section managers (middles) like the Samurai who did what they wanted to do without regard to policy, but now both managers and section managers are like the “Omikoshi” Type. If the already completed business is continuing, the middle has entered its position. You must push your boss to do new things, but you can't do that because of your stable position.

Based on a theoretical comparison analysis, the above interview confirms that Japanese companies are not good at open innovation due to the characteristics of the top leader of Japanese leaders, which is characterized by Japanese management. It was even suggested that the closed innovation caused by the middle management, which is an advantage of Japanese-style management, may be declining.

4. Conclusion

The conclusion is as follows. Membership-type employment, which is the employment system of Japanese companies, was a mechanism that created an excellent middle that can generate closed organizational knowledge creation system and make internal changes. However, there is a challenge in selecting a leader with leadership to create an open community with an international horizontal division of labor. The middle of creating organizational knowledge and exceeding organizational change is indispensable in the field of manufacturing. If Japan still needs to find an advantage in manufacturing, then it should not lose its advantage. In the first place, promotion of open innovation that occurs externally and closed innovation that occurs internally do not conflict, but should be compatible. This is an external modular and internal integral strategy as described by Fujimoto (2017). It is to make open innovation and closed innovation compatible. To that end, it is necessary to nurture top leaders for open innovation, and to rethink the current way of accomplishment in the direction of reviving middle up-and-down. In other words, having both the organizational knowledge creation by middle that is closed innovation and the top platform leadership to create open innovation should be a strategy to go one step further in innovation. To that end, while maintaining the middle up-and-down, it is necessary to jump and raise an excellent transformational middle to the top.

The reason why Japanese companies were unable to compete with the open innovation based on the international horizontal division of labor between the United States and China since the 2000s is because the middle was transformed into a “Tea Monk” by the Japanese performance principle. This may be due to the disappearance of

“Midles of UP and Down”. The Japanese performance-based wage principle is a mechanism introduced by the management and human resources departments of Japanese companies to cut costs due to the recession stemming from the financial system. It is not a mechanism to select the top talent who brings huge value to the company through disruptive innovation, and to distribute rewards commensurate with the results. Many previous researches on human resource management in Japan have agreed that many Japanese employees agree to introduce performance-based principles, but that the performance-based system currently introduced is a failure [Morishima (1999), Takahashi (2004), Nakamura (2006), Tachimichi (2008), Saito & Takahashi (2015),Park & Maeda (2015)]. This can be understood from the viewpoint of closed innovation and open innovation. While employees of Japanese companies generally agree with performance-based wage principles from the perspective of expecting the emergence of leaders who will contribute greatly to corporate growth that causes open innovation, organizations in the middle field Perhaps they are worried about the current performance-based principle that hinders closed innovation through creative knowledge creation. It can be said that the disappointment of the introduction of performance-based companies by Japanese companies has become apparent through the inactivation of open innovation.

In addition, Japanese companies that can still compete with competitors in the US and China, such as Toyota, Komatsu, and Daikin, retain "the middles of the up and down” on site. They do not adopt performance-based principles and continue their seniority system. A detailed research study is needed to determine how well the middle “up and down” is still alive. The relationship between them and the introduction of performance-based approach as well as research are necessary in the future. This study is a hypothesis derived from the theory of previous studies. Therefore, verification is necessary both quantitatively and qualitatively for this hypothesis. That verification is the subject of future research.

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Influence of Perceived Leader Behavior on Work-Family Outcomes: A Literature Review

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Influence of Perceived Leader Behavior on Work-Family Experience: A Literature Review

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Abstract

In the last decade, there is increasing interest in the effect of leader behavior on subordinates' work-family experience. In reviewing the existing literature within the last 5 years, this paper finds the leader behavior studies mentioned above have focused on family-supportive supervisor behaviors (FSSB) and follower-oriented leadership. Numerous studies have documented the benefits of supervisors' support on subordinates' work-family experience. However, we rarely know precisely whether supervisor support can also harm subordinates' work-family experience in some cases. This paper draws on the Conservation of Resources (COR) theory and social exchange theory to summarize the relationship between perceived FSSB and work-family conflict. Past research has also suggested that social support is not always helpful, or even makes the situation worse, therefore not all leader supportive behaviors can be viewed as resources. Thus, to further research of this field, this paper proposes some propositions for future validation.

Keywords: Family supportive supervisor behaviors, Follower-oriented leadership, Work-family conflict, Conservation of resources theory, Social exchange theory

1. INTRODUCTION

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In recent years, the study of work-family balance has attracted much attention. Surviving in the competitive, fast-moving environment of the modern world can be stressful, particularly for working mothers with children under school age, and for employees in the "sandwich generation" with both childcare and eldercare to deal with, it is becoming increasingly challenging to manage their work and family lives responsibilities simultaneously. As a result, they experience work-family conflict. Work-family conflict can have a harmful effect on a marriage, especially when both parents work, which hurts their young children. In this way, higher levels of work-family balance lead to higher levels of family functioning, marital satisfaction and child mental health (Liu, Wang, Li, & Zhou, 2019; Strazdins, Obrien, Lucas, & Rodgers, 2013).

From the perspective of academic work-family balance research, in labor economics, work-family balance-related research has focused on the gender gap, childcare leave, allocation of time to live etc. (Hosomi, 2017). Research in the organizational psychology field has concentrated on the conflict and the positive relationships between work and family lives (Hosomi, 2017). However, in human resource management, organizational support for achieving work-family balance among employees is a necessity for motivating and retaining the best professionals in organizations as well as an expression of their social responsibility (Barrena-Martínez, López-Fernández, & Romero-Fernández, 2019).

Although companies provide various measures for employees to balance their work and family lives, it is still difficult for employees to get enough effective support (Hosomi, 2017). For instance, some employees use family-friendly policies, such as childcare leave, which may cause stress to the replacement employees. Also, the company may not be able to guarantee the number of replacement employees, which could result in the work-family balance system not being utilized well by the employees, which may also cause

dissatisfaction, worsen the employees' attitude, and lower their morale. Based on this perspective, research subjects on work-family balance have shifted from "employees who benefit from work-family balance support programs" and "employees with work-family balance needs" to "employees who are less likely to benefit from work-family balance support programs" and "coworkers and supervisors around employees with work-family balance needs " (Hosomi, 2017). A family-supportive work environment is essential for achieving work-family balance, and in addition to the family-friendly policies, the support of family-supportive supervisors is equally essential (Allen, 2001).

In other words, in the workplace, the supervisor plays a vital role in helping employees achieve a work-family balance, especially the family-supportive supervisor behaviors (FSSB) proposed by Hammer, Kossek, Zimmerman, & Daniels (2007). As previously indicated, FSSB can help decrease issues such as employees' work-family conflict, turnover intention, and increase such issues as their work-family positive spillover, job satisfaction, work engagement and well-being etc. (e.g., Hammer, Kossek, Yragui, Bodner, & Hanson, 2009; Straub, 2012). However, in the absence of family support from a supervisor, employees are likely to express ostracism of their supervisor, which may be harmful to the supervisor's well-being (Walsh, Matthews, Toumbeva, Kabat-Farr, Philbrick, & Pavisic, 2019).

According to COR theory, workplace support is a resource for solving an individual's work and family lives issues, in other words, employees can gain resources from their supervisors, which protect or pursue work-family balance. Drawing from the perspective of FSSB, support is seen as an effective method of helping employees achieve work-family balance (Hammer, Kossek, Yragui, Bodner, & Hanson, 2009). However, based on social exchange theory, reciprocity is often expected after receiving help, so that it has the potential to become a burden, especially for some extra support. In other words, the effect of support is

not always positive, which also leads to negative consequences such as work-family conflict (Bolino & Turnley, 2005; Lee, Bradburn, Johnson, Lin, & Chang, 2019). Therefore, there is a necessity to reverify the relationship between perception of support and work-family experience.

Moreover, in recent years, leadership has been the critical prerequisite in FSSB, and scholars have started to add it to employees' work-family research (Kishino, Matsushita, Ichimura, Takaki, & Suzuki, 2019; Kossek, Petty, Bonder, Perrigino, Hammer, Yragui, & Michel, 2018; Zhang, Kwan, Everett, & Jian, 2012).

Following the introduction, this paper is concerned with the effects of perceived leader behaviors on work-family experience. With the aim of finding out some negative impacts generated by supportive leader behaviors. This study seeks to address the following question. Namely, how the perceived FSSB potentially negatively affects the WFC. Specifically, this paper is organized into three sections: First, this paper concentrates on the relationship between perceived FSSB and work-family conflict. Then, it reviews the effects of leadership on subordinates' work-family experience. Finally, this paper summarizes the relationships mentioned above and then puts forward some suggestions for the future validation of potentially negative impacts of FSSB.

2. LITERATURE REVIEW

Work-Family Interface

Several studies in the body of work-family literature have indicated that the boundaries between work and family lives are permeable, and experience in one area affects experience in the other. There are three conceptual models used to describe work-family interface (Table 1).

First is the work-family conflict model, which is a notion that describes how work and family interfere

with each other. Based on COR theory, the resources (such as time, material, energy) that people have are limited, and when too many resources are invested in either work or family lives, so that the needs of the other side cannot be met with the same resources, it can lead to work-family conflict (Greenhaus & Beutell, 1985; Hobfoll, 1989). Therefore, if employees fail to allocate resources appropriately for work or family lives, they will experience work-family conflict. Greenhaus & Beutell (1985) defined work-family conflict in three categories, which are: 1. Time-based conflict, in work and family lives roles, when an employee spends more time in one role, inevitably results in less time invested in the other role; 2. Stress-based conflict, that is, stress symptoms such as tension, depression, and anxiety resulting from the performance of one's role at work or with one's family, which inevitably affects their performance in the other role; and 3. Behavior-based conflict, where the characteristic behavioral patterns expected of one role at work or at home are harmful to the other role's performance. Moreover, there are two directions of this notion, which are work-to-family conflict (WFC) and family-to-work conflict (FWC). Besides, this notion also has been generally tested so far.

Second is the work-family enrichment model (also referred to as work-family positive spillover and work-family facilitation), which suggests that the resources generated in either area of the work or family lives can influence the performance positively in the other area (Frone, 2003; Greenhaus & Beutell, 1985; Greenhaus & Powell, 2006). Like the notion of conflict, these notions are also distinguished into two directions. According to the perspective of the work-family enrichment theory, work-family enrichment can buffer one from work-family conflict (Greenhaus & Powell, 2006). Associated with the notion of positive work-family relationships are work-family positive spillover, and work-family facilitation.

The third is work-family balance model, which is defined as "an overall appraisal of the extent to which

individuals' effectiveness and satisfaction in work and family roles are consistent with their life values at a given point in time" (Greenhaus & Allen, 2011, p. 174). Accordingly, unlike the concepts of conflict and enrichment, work-family balance does not distinguish between work and family lives' directions, but focuses on whether a person is satisfied with the feelings experienced in a particular area of their work and family lives.

Perceived Support and Work-Family Conflict

The existing studies indicate that examining the relationship between social support and individual work-family conflict produces unstable results. Thus, to further clarify the effects of perceived social support on work-family conflict, existing research has pointed out that a more apparent distinction among the perceived forms of support is essential, as different types of support might result in different consequences (Spitzmuller & Van Dyne, 2013). For instance, support is divided into two categories which are proactive helping and reactive helping (Spitzmuller & Van Dyne, 2013). Specifically, proactive helping is defined as when, even if the receiving side does not ask for help, the supporting side still provides support for them. In contrast, reactive helping is a behavior in which the supporting side provides support specifically based on the receiving side's wishes and needs (Lee, Bradburn, Johnson, Lin & Chang, 2019).

The definition of something as a resource or not depends on the individual, situation, etc. (Russell, Woods, & Banks, 2017). Therefore, this paper takes the following two logical approaches to demonstrate the impacts of the perceived support.

Positive Impacts of Perceived Support.

According to COR theory, resource loss leads to stress, however, these resources are in turn generally defined as "those entities that either are centrally valued in their own right (e.g., self-esteem, close

attachments, health, and inner peace) or act as a means to obtain centrally valued ends (e.g., money, social support, and credit)" (Hobfoll, 2001; Hobfoll, 2002, p. 307). Social support as a resource that could bring some positive work-family experience for an individual (Pan, Chuang & Yeh, 2020). More specifically, in the workplace, the support from supervisors or coworkers could improve employee's well-being and organizational commitment while reducing their stress, turnover intentions, and work-family conflict (Allen, 2001; Byron, 2005; Straub, 2012). Based on the categories of proactive helping and reactive helping, this paper suggests that reactive helping-making gaps less likely to occur at the proper timing, which could fit this positive perspective.

Drawing from social exchange theory, those who receive support are expected to reciprocity (Blau, 1964). More specifically, support in the workplace is a reactive behavior in response to the positive treatment of work-related persons like supervisors, coworkers and subordinates, and this kind of behavior increases with higher-quality leader–follower relationships (Ilies, Nahrgang, & Morgeson, 2007; Spitzmuller & Van Dyne, 2013).

Negative Impacts of Perceived Support.

Even though social support might help employees, it does bring some adverse effects (Beehr, Bowling, & Bennett, 2010). The negative aspects of support in COR theory have also been highlighted (Hobfoll, Halbesleben, & Westman, 2018). For example, social support in the workplace could also lead to job stress, role overload, work–family conflict and negative individual well-being (Bolino & Turnley, 2005).

Moreover, as pointed out by current literature, support can only be effective when the supporting side fully understands the receiving side's needs. Otherwise, it is possible to be perceived as a burden because of having to reciprocity. In this case, social support cannot be called a resource, a point which is also often

overlooked. In other words, the effectiveness of the support depends on whether the supporting side can provide the kind of support requested by the receiving side, and receiving extra support from a supervisor or coworkers might be a rather heavy workload (Dalal & Sheng, 2019; Lee, Bradburn, Johnson, Lin, & Chang, 2019). Drawing on Lee et al (2019), reactive helping from the supporting side could fulfill the needs of the receiving side. It is challenging to have an adverse consequence. Therefore, drawing from the work-family conflict perspective, this paper predicts that reactive helping could buffer the receiving side from work-family conflict. In contrast, due to a lack of understanding the receiving side's exact needs, proactive helping might actually result in work-family conflict.

The negative results of support could kill personal resources in addition to burdening people. For example, self-esteem, as an essential personal resource, has the potential to be damaged when being helped makes the recipient feel that they are less capable, and this damage to their personal resources could lead to work-family conflict (Lee et al, 2019; Rashid, Nordin, Omar, & Ismail, 2012).

The Perception of Family-Supportive Supervisor Behaviors and Work-Family Conflict

A family-supportive work environment usually consists of family-supportive organizational policies and family-supportive supervisors, a family-friendly atmosphere that can buffer employees from the stress of work-family conflict, and a supportive supervisor who can empathize with the employee's need to balance work and family lives (Thomas & Ganster, 1995).

It has been previously indicated that family-supportive leaders are more likely to focus on helping employees achieve their work-family balance through instrumental support and emotional support (Thomas & Ganster, 1995), particularly, the family-supportive supervisor behaviors (FSSB) which were proposed by Hammer et al. (2007). FSSB consist of four subordinate dimensions: emotional support, instrumental

support, creative work-family management, and role modeling (Hammer, Kossek, Yragui, Bodner, & Hanson, 2009). Hammer et al. (2009) indicated that emotional support is likely to focus on perceptions that the individual's emotions are being considered, such as employees are comfortable communicating with their supervisor on topics like family-related issues and acquiring respect, understanding, and sympathy. Instrumental support, in general, is the actual behavior of supervisors toward scheduling and flexibility, work policies, utilization of policies, work assistance, coordination of time, place, and the way of doing work to meet the role responsibilities of the employee's work and personal life. Creative work-family management is the supervisor's response to employees' responsibilities in their work-family roles, by redesigning time, place, and work practices to meet the common interests of employees and stakeholders. For example, supervisors may use employees as volunteers at their children's schools every Friday afternoon to help them carry out their family roles and responsibilities and build a win-win relationship between them and the company. Role modeling refers to supervisors' actions to balance their work and family lives, such as using family-friendly policies so that subordinates can learn from them when they fall into the same situation.

There is a negative relationship between FSSB and work-family conflict (Kossek, Pichler, Bodner, & Hammer, 2011; Straub, 2012). Furthermore, perceived FSSB positively impacts work-family balance via work-family conflict (Greenhaus, Ziefert, & Allen, 2012).

Leadership categories are considered a more powerful factor in examining FSSB perceived by employees (Kossek, Bodner, Perrigino, Hammer, Yragui, & Michel, 2018). The research on leadership and FSSB is as follows: based on the leader-member exchange theory, we know that trust plays a primary role in establishing and developing the relationship between leaders and employees. Trustworthiness is an intrinsic

feature of an authentic leader, and authentic leadership promotes employee's trust in their leader (Hassan & Ahmed, 2011). Kishino, Matsushita, Ichimura, Takaki, & Suzuki (2019) focused on the role of trust in the relationship between authentic leadership and FSSB. The research on transformational leadership argues that it provides a resource for employee perceptions of FSSB (Kossek, Bodner, Perrigino, Hammer, Yragui, & Michel, 2018). In the study of the cross-domain effects of ethical leadership, the higher the level of FSSB perceived by employees, the more significant was the mediating effect of the work-family enrichment they experienced on the relationship between ethical leadership and employee family lives satisfaction (Zhang & Tu, 2018).

This paper explores the impact on work-family experience according to the categories of perceived leader behavior and leadership in the following section.

Perceived Leadership and Work-Family Experience

Effective leader behavior is distinguished into four categories, task-oriented behavior, relational-oriented behavior, changed-oriented behavior and external-behavior or ethical/unethical leader behavior (Yukl, 2012; Li, McCauley, & Shaffer, 2017).

For task-oriented behavior, leaders need to ensure that human and material resources are fully utilized in the workplace by planning work programs, clarifying work objectives, overseeing operations and solving problems (Yukl, 2012). Task-oriented leaders can show employees how to use their resources efficiently, which would impact positively on their work-family experience (Li, McCauley, & Shaffer, 2017). However, other studies have pointed out that task-oriented leader behavior may also bring some negative consequences for employees. As suggested by Eng, Moore, Grunberg, Greenberg, & Sikora (2010), the leader who shows more concern for employees can buffer employees from time-based conflicts. However, unlike a supportive

leader, task-oriented leaders pay more attention to guiding employees to achieve at work according to their plans rather than concerning themselves with the individual employee (Yiing & Ahmad, 2009; Yukl, 2012). Accordingly, a task-oriented leader would limit an employee's job satisfaction (Nguyen & An, 2020). To sum up, task-oriented leaders are likely to have a positive impact on the allocation of work-family resources to employees but this can also result in time-based work-family conflict.

For relational-oriented behavior, the four main aspects are supporting, developing, empowering and recognizing (Yukl, 2012). The main expressions are caring about the needs and feelings of employees, giving listening and trust, mediating conflicts among employees, as well as showing appreciation and recognition, and even giving salary increases or bonuses to employees (Yukl, 2012). Montano, Reeske, Franke, & Hüffmeier, (2017) indicate that high-quality leader-follower interactions are good for employees' mental health.

For changed-oriented behavior, it consists of the following four components: advocating change, envisioning change, encouraging innovation and facilitating collective learning (Yukl, 2012). Change-oriented leader behavior promotes change, expresses an inspiring vision, encourages innovation and encourages collective learning. It emphasizes both the leader's initiation and encouragement of change and the leader's leadership of the change process (Yukl, 2012). In recent years, transformational leadership has been generally tested in studies of work-family literature (Bass, 1985).

For the fourth category of leader behavior in this paper, we choose follower-oriented behavior such as servant leadership and authentic leadership, which have received extensive scholarly attention in the work-family literature (e.g., Lyu, Wang, Le, & Kwan, 2019; Tang, Kwan, Zhang, & Zhu, 2016).

From the perspective of leadership categories, in the past few years, the relationship between authentic

leadership, servant leadership and employee work-family experience has received extensive attention from scholars. The attention which focuses on the effects of leadership on employee's work-family balance has increased and various aspects of mediators and moderators have been shed light on. Drawing on insights of an overview of the impact of leader behavior on employee work-family experience between 1995 and 2015 from Li, McCanley, & Shaffer (2017), this paper follows them and continues to review the existing literature from 2015 to 2020.

The Direct Relationship Between Perceived Leadership and Work-Family Experience .

By 2015, research on leader behavior and employee work-family issues had focused on the relationship between leadership and work-family conflict and enrichment experienced by employees (Li, McCauley, & Shaffer, 2017). Based on the studies from 1995 to 2015, Li, McCauley, & Shaffer (2017) have indicated that future research should concentrate on leader behavior other than leader-relationship behaviors' categories, such as ethical/unethical behaviors related to employee work-family conflict and enrichment. Moreover, they also point out that the relationship between leader behaviors and employee's family to work conflict and enrichment should be examined. Furthermore, boundary conditions of leader behaviors such as the role of supervisor characteristics on how to effect employee work-family experience should receive more attention in future studies. In response to these points, this paper reviews the studies from 2015 to 2020. On the whole, regarding leader behavior, in addition to the previous transformational leadership and servant leadership, there is a growing interest in authentic leadership, while in terms of employee work-family experience, there are far fewer papers that link leadership to work-family balance and work-family positive spillover than there are papers that link leadership to work-family conflict and enrichment.

Regarding prerequisites of employee work-family experience, existing studies show that in particular

recently, more and more scholars have been interested in authentic leadership, servant leadership, transformational leadership and ethical leadership. In other words, the studies of leadership that extend beyond the actual work environment have received more attention. Particularly since 2015, research on authentic leadership has moved beyond the earlier series of negative experience such as burnout, turnover, and workplace bullying in preferring positive experience such as health and well-being (Laschinger & Fida, 2013; Laschinger & Fida, 2014; Braun & Peus, 2018). Authentic leadership seems to buffer employees from work-family conflict and drive work-family enrichment for them. Moreover, scholars have adopted the view that authentic leadership contributes to the realization of the work-family balance of employees. Braun & Peus (2018) indicated that if an employee has an authentic leader, he or she is more likely to achieve work-family balance, and therefore gain more job satisfaction. In addition, the studies indicated that authentic leadership is a resource for the health and well-being of both leaders and employees, as well as an essential resource for enhancing employee work-family balance (Braun & Peus, 2018; Lyu, Wang, Le, & Kwan, 2019). For instance, an employee who perceived authentic leadership suggests that an authentic leader who transmits positive views of how they manage their work and private life well can enhance employee's work-family balance (Braun & Peus, 2018). So, we can conclude that an authentic leader seems to play an important modeling role in helping employees achieve work-family balance. In addition to work-family conflict and enrichment, the positive effect of authentic leadership on work-family positive spillover has also been demonstrated (Zhou, Yang, Kwan, & Chiu, 2019).

Studies of servant leadership that impact employee work-family experience show that servant leadership is positively related to employee work-family positive spillover and work-family balance, but negatively related to work-family conflict (Tang, Kwan, Zhang, & Zhu, 2016; Wang, Kwan, & Zhou, 2017). Regarding

research of transformational leadership in relation to employee work-family experience they suggest that transformational leadership positively related to work-family enrichment and negatively related to work-family conflict (Hammond, Cleveland, O'Neill, Stawski, & Tate, 2015).

Mediators.

Lyu, Wang, Le, & Kwan (2019) suggested that authentic leadership helps to enhance leader-member exchange, which in turn promotes work-family enrichment and causes work-family balance. They highlight the mediating role of leader-member exchange and work-family enrichment in turn on the relationship between authentic leadership and work-family balance.

Tang, Kwan, Zhang, & Zhu (2016) indicated that employees can get emotional healing and learn from a leader's servant behavior, which can buffer them from work-family conflict, and enhance work-family positive spillover. The causal relationship between servant leadership and employee's work-family balance is as follows: servant leadership calls up employee's identification with the leader, further increases the positive spillover from the work to the family, and ultimately promotes employee's work-family balance (Wang, Kwan, & Zhou, 2017).

In exploring the relationship between transformational leadership and employee work-family conflict and enrichment, positive emotions and managerial support for work-family balance play a significant mediating role, while transformational leadership reduces employee work-family conflict by increasing employees' autonomy (Hammond, Cleveland, O'Neill, Stawski, & Tate, 2015). Similarly, FSSB also played a mediating role in demonstrating that transformational leadership mitigated employees' work-family conflict, as transformational leadership provides positive resources for employees' perceptions of FSSB, and these positive perceptions created a positive work climate, ultimately buffering the employee from work-family

conflict (Kossek, Bodner, Perrigino, Hammer, Yragui, & Michel, 2018).

In a study of the relationship between ethical leadership and employee work-family enrichment, the mediating effect of FSSB was demonstrated in that when employees perceive high levels of FSSB, it indicates that their family responsibilities are being understood, considered, and respected by their leaders (Zhang & Tu, 2018).

Moderators.

If a leader can share his own WFC he can demonstrate authentic leadership and strengthen the relationship between authentic leadership and employee's work-family conflict. That is, an authentic leader needs to maintain a low level of work-family conflict to be a positive resource for employees to resolve work-family issues (Braun & Nieberle, 2017). Braun & Nieberle (2017) also explored the different impacts of authentic leadership on work-family experience at different levels, as authentic leadership enabling work-family enrichment both at the individual and team levels, but mitigating work-family conflict only at the individual level.

The positive impact of authentic leadership on work-family positive spillover is more obvious to an employee with a low level of work–home segmentation preferences (Zhou, Yang, Kwan, & Chiu, 2019).

3. FINDINGS AND COROLLARIES

Perceived FSSB and Work-Family Conflict

First, this paper reviews the relationship between perceived support and work-family conflict in terms of social support as a resource, but in some cases, considers it a burden. Based on COR theory, an individual can indeed gain resources from the workplace to address work-family issues, which supports the view of

social support as a resource. This paper outlines perceived supervisor work-family supports that play a central role in reducing work-family conflict in the workplace (Kossek, Pichler, Bodner, & Hammer, 2011). This benefit has been extensively demonstrated in studies of the relationship between perceived FSSB and work-family conflict, turnover intention, well-being, and job satisfaction, etc. (e.g., Straub, 2012).

Furthermore, according to social exchange theory, reciprocity in response to the support can be a burden, which supports the view of social support as a burden in some cases. Especially for people with high self-esteem, their self-esteem as a personal resource might be hurt as they are likely perceived as less capable when they accept help (e.g., Lee et al, 2019; Rashid, Nordin, Omar, & Ismail, 2012). It turns out that even social support can negatively impact in some situations (Beehr, Bowling, & Bennett, 2010). Namely, support is not definitely a good thing. More specifically, if the support is not according to the receiver's wishes or needs, it is likely to be an additional burden for the receiver, and as a result, the examination of the effects of support on work-family conflict is unstable (Cinamon & Rich, 2010).

In summary, this paper makes the following corollaries.

Corollary 1: Belief in reciprocity will moderate the relationship between perceived FSSB and WFC, such that the negative relationship between perceived FSSB and WFC will be stronger among employees who believe in reciprocity as high, compared with those who believe in reciprocity as low.

Corollary 2: Self-esteem will moderate the relationship between perceived FSSB and WFC, such that the negative relationship between perceived FSSB and WFC will be stronger among employees who with high self-esteem, compared with those who with low self-esteem.

Corollary 3: Identification with the support received will moderate the relationship between perceived FSSB and WFC, such that the negative relationship between perceived FSSB and WFC will be stronger

among employees who identify less with the support received compared to those who identify more with the support received.

The Perspective of the Effects of Family Supportive Leadership on Work-Family Experience

Next, this paper reviews the perspective of the effects of leadership on work-family experience. In recent years, leadership categories concerning work-family experience are almost all concentrated on authentic leadership, servant leadership, and transformational leadership, which could be summarized as follower-oriented leadership (e.g., Tang, Kwan, Zhang, & Zhu, 2016; Lyu, Wang, Le, & Kwan, 2019). Traditional leadership emphasizes that followers or subordinates are more or less passive in receiving information from the leader. In the case of follower-oriented leadership, it is expressed more in the interaction between the leader and the subordinates, in the process of role exchange (Charlotte, 2018). Ultimately, this paper finds that perceived follower-oriented leadership is more likely to pursue work-family balance.

Mediators of the relationship between follower-oriented leadership and positive work-family experience are concentrated on emotion-related variables, such as leader-member exchange, emotional healing, positive emotions and identification with leader, etc. (e.g., Hammond, Cleveland, O'Neill, Stawski, & Tate, 2015; Lyu, Wang, Le, & Kwan 2019; Tang, Kwan, Zhang, & Zhu 2016; Wang, Kwan, & Zhou, 2017). Therefore, it is evident that leaders can support employees in achieving work-family balance by generating positive emotions. This view is consistent with the effect of emotional support in the FSSB.

Besides, in terms of moderators affecting the relationship between follower-oriented leadership and work-family experience, the leader's own level of work-family conflict is emphasized (Braun & Nieberle, 2017). Based on this perspective, the leader's low-level of work-family conflict could be a model for employees to solve their own work-family issues. This perspective is in accordance with the effects of role model support

in FSSB. Therefore, the last corollary in this study is as follows.

Corollary 4: Supervisors who use follower-oriented leadership styles are more likely to have subordinates with higher FSSB perceptions.

4. CONCLUSION AND FURTHER RESEARCH TOPICS

According to COR theory and social exchange theory, this paper has explored the availability of resources for pursuing work-family balance in the workplace, primarily focusing on the perception of leader behavior, mainly in terms of FSSB and follower-oriented leadership. There are at least four findings in this review paper as follows.

First, so far, in the process of exploring the relationship between perceived support and work-family conflict, it has been suggested that the moderating role of the type of support cannot be ignored. Especially in the workplace, the behavior corresponding to supervisor support for subordinates' work-family balance is FSSB, which includes the four specific support categories defined as emotional support, instrumental support, creative work-family management, and role modeling. As pointed out in prior research, various support categories moderate the relationship between perceived support and work-family conflict differently. For instance, the support being divided into proactive and reactive support indicated that the relationship between perceived support and WFC is unstable. Therefore, whether the categories of FSSB affect the relationship between perceived support from supervisors and WFC should receive more attention in future studies.

Second, this paper finds that the relationship between perceived support and work-family balance needs to be viewed dialectically. On the one hand, according to COR theory, support as a resource can bring help

to solve the problems experienced in the work or family lives, but on the other hand, according to social exchange theory, reciprocity in response to support is equally expected. In the workplace, if the perceived leader's support is superfluous and undesired in a situation that also requires reciprocity, it would instead add a burden to the individual's work (Beehr, Bowling, & Bennett, 2010). Moreover, for people with a high level of self-esteem, receiving support means that their lack of ability is being noticed, which could damage their self-esteem, and self-esteem as a personal resource is closely linked to work-family conflict (Lee et al, 2019; Rashid, Nordin, Omar, & Ismail, 2012).

Accordingly, in terms of negative impacts of FSSB, this study proposes that belief in reciprocity, self-esteem, and identification with the support received will potentially moderate the relationship between perceived FSSB and WFC. Regarding self-esteem studies, for a person with high self-esteem, accepting support is likely to damage self-esteem, which has been enormously investigated in some Western countries. However, compared with Western countries, we know little about this validation in Asian countries. A recent investigation in Japan suggested that perceived support from supervisors hasn’t led to an increase in WFC due to the effect of support on workload (Fumoto, Matsushita, & Morinaga, 2020). Reducing workload through acceptance might lead to decrease WFC, whether the recipients identify or not (Fumoto, Matsushita, & Morinaga, 2020). Whether the relationship mentioned above is associated with Japanese or Asian self-esteem levels should be verified in more Asian countries in the future.

Third, the emotion-related mediating factors of the relationship between leadership and positive work-family experience have received more attention recently. In other words, a follower-oriented leader could help employees achieve work-family balance by enhancing their positive emotions. Meanwhile, this paper also finds that leaders who experience a low level of work-family conflict themselves might play a modeling

role in showing employees how to solve their work-family issues. Moreover, from the employees' perspective, family-supportive advice/assistance might be felt more strongly by those who are less able to adjust work–home segmentation preferences. This is consistent with the view mentioned in COR theory that support is more effective when the recipient lacks specific resources.

Finally, although FSSB studies explore employees' work-family issues, attention is still paid to the benefits of its existence to the employees' work-family experience, ignoring whether responses when subordinates fail to recognize the FSSB might increase supervisors' WFC in turn. Moreover, through reviewing the effects of follower-oriented leadership, FSSB on WFC, in sequence. This paper summarizes that both perceived follower-oriented leadership and FSSB reduce WFC through positive emotional transmission and role modeling. This implies that follower-oriented supervisors are more likely to have subordinates with higher perceptions of FSSB to subordinates. The subsequent investigations related to this relationship will provide more conclusive evidence for studies linking perceived support to work-family balance.

Table 1. Three Conceptual Models of Work-Family Interface

Conceptual models	**Notion**
Conflict model	Work-family conflict
Enrichment model	Work-family enrichment Work-family positive spillover Work-family facilitation
Balance model	Work-family balance

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HRM Systems and Isomorphism - Inter-corporate knowledge exchange within and across industries in the development of HRM in Japan

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HRM Systems and Isomorphism - Inter-corporate knowledge exchange within and across industries in the development of HRM in Japan

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Abstract

Following a call for actor-centric research in HRM research, we look at how companies generate new HR ideas and highlight the role of inter-organizational knowledge exchange. Our interview study with human resources representatives of 37 Japanese companies finds that companies clearly prefer direct open exchanges with other companies over the engagement of outside consultants and consider this not only as a meaningful way to gain knowledge but also as a validation of their own initiatives. We discuss the possible reasons for this preference with reference to institutional theory and isomorphism and propose that the way HR knowledge is spread is linked to the nature of employment systems. In open labour markets, HR knowledge has been reported to be predominantly spread through business consultants, educational institutions and career changes of HR professionals, resulting in normative isomorphism. Yet, we propose that internal labour markets like Japan's inhibit such diffusion of knowledge. Companies resort here to direct inter-corporate knowledge exchange, which leads to mimetic isomorphism.

Keywords

Japan**,** Human Resources Management, Knowledge Exchange, Institutional Theory, Isomorphism

Introduction

Human resources management practices of Japanese companies continue to attract attention. Yet, while once described as highly coherent and deserving some credit for the success of Japanese corporations, the focus has long since shifted towards a discussion of changes that Japanese companies need to make

to stay competitive. This discussion has been ongoing for over more than two decades, with shifting focal points over time. First, by looking at incentive systems, career advancement or the length of employment, authors focused on the classic characteristics of Japanese management, pay and advancement by seniority and long-term employment (Conrad, 2011; Endo, 1988; Inagami & Whittaker, 2005; Morris, Delbridge & Endo, 2018; Matanle, 2003; Nonaka, 1988; Peltokorpi, 2013). Later research looked at changes in the composition of workforces, especially the increasing importance of non-regular employees (Gottfried & Hayashi-Kato, 1998; Keizer, 2008; Meyer-Ohle 2009). More recently, researchers have focused on initiatives of companies to increase employee diversity, such as through the increased employment of women (Nakagawa & Schreiber 2014, Nemoto, 2013; Olcott & Oliver, 2014) or foreign employees (Moriya, 2012; Sekiguchi, Froese & Iguchi, 2016; Conrad & Meyer-Ohle, 2019; Huang, Yang & Sekiguchi 2019).

While changes to Japanese HRM practices as such have thus been analyzed in some depth, what has garnered far less attention is how such changes have been initiated, how decisions on changes have been made, and the actual processes that accompany such changes. What has been observed is that, in terms of the direction and the coordination of change, Japanese companies have often been moving in tandem or convoy, in a practice that has been described with the term *yokonarabi* (horizontal alignment). Ito (2016) defines the practice as:

> *the actions, before making a decision, of stopping to look what other people in the same domain or institutional field are doing and then deciding to do pretty much the same thing. The legitimacy of an organisation's actions can be enhanced by putting it into the wider context of the institutional field rather than through demonstrable claims to logic or rationality* (68).

Chikudate (1999) sees companies in changing management practices searching for what is common sense in the industry and in the process aligning themselves with the action of large leading corporations. Anchordoguy (2005) found the practice in R&D in the high-tech sector, arguing that companies were

striving to maintain a state of orderly communitarian competition. The term has also been used for the alignment of salaries within industries (Xu, 1997; Weathers 1999) and in the study of herd behaviour in the banking sector (Nakagawa & Uchida 2011). Sakakibara and Kusonoki (1993) refer to strong isomorphic pressure with regards to Japanese employment practices that even foreign affiliated companies in Japan cannot always avoid. Olcott (2008 and 2009) refers to the term in a discussion of changes to the management of human resources in the wake of mergers involving foreign companies, arguing that such firms have been able to withstand *yokonarabi* pressures better than local firms and that this has resulted in new employment practices. Brinton and Mun (2015) adopt the concept of *yokonarabi* from Olcott and report how HR managers play a major role in the introduction of new practices and develop a shared understanding of the direction of change by attending HR seminars and studying HR journals. Here, the authors see a higher awareness of new developments in HR management by the managers of large firms, since these have better access to such seminars. Regarding work-family related policies, the focus of their study, they consider their informants to be well informed about the initiatives of other companies. Sekiguchi (2013) does not use the term *yokonarabi,* but instead points to bandwagon effects in arguing that Japanese companies are prone to falling to management fashions. He relates this to the generally homogeneous and collectivist make-up of Japanese society as well as the existence of various vertical and horizontal corporate groupings connected through strong intergroup communication channels.

Yet, while isomorphic tendencies in the management of human resources in Japan and processes of change have been pointed out and labelled with such terms as *yokonarabi* or bandwagon effects, the actual ways that companies go about these processes on the ground have not received much attention. With this paper, we want to work in this direction by taking up one practice that we have identified to play a major role for HR departments and managers in Japanese companies in learning about and deciding on HR innovations, *the frequent and direct exchange of information between staff of HR departments across company borders within and across industries*.

In terms of theoretical framing, institutional theory has contributed to a better understanding of the relationship between human resources management, its contextual environment and issues of isomorphism. DiMaggio and Powell (1983) outline three types of isomorphism. Coercive isomorphism originates out of pressures from politics or society that force an organization to act in a certain way to maintain its legitimacy. Normative isomorphism results from professionalization by people who perform similar tasks and related actors such as educational institutions or consultants. These strive for legitimacy and some level of autonomy by defining the scope and directions of their work to each other and the outside. Finally, firms modelling themselves after those that they regard as successful leads to mimetic isomorphic processes. Consultants can play an intermediate role in this process, too. Kossek (1987) builds on the DiMaggio and Powell's propositions to hypothesize on the determinants of human resources innovations. She links differences in innovations between industries to differences in environmental forces (unions, technology, labour market), sees a relationship between HRM innovations and corporate success, and proposes that the diffusion of innovations is dependent on how readily innovations can be marketed by consultants. She further sees organizations taking up innovations to appear legitimate to their environment, points out that reasons for taking up an innovation might differ based on the strength of corporate cultures, and finally suggests some path dependency in how companies think about innovations based on past failure or success. Brewster, Mayrhofer and Smale (2016), in a comprehensive review article on issues of international HRM convergence and divergence, state a renewed interest in actor-centric and institutional thinking. Referring to Rupidara and McGraw (2011) they demand more research that looks at the role of actors: *More detailed accounts of the roles and activities of key actors at various levels of the MNE will help to shed light on the dynamic interactions between MNE actors and their context in shaping HRM practices* (291). Lewis, Cardy and Huang (2019) similarly demand a closer look at actors and argue that institutional theory has evolved to offer opportunities beyond explaining adjustment to institutional constraints: *institutional work addresses agency at the day-to-day level,*

exploring how actors create, maintain, and disrupt the institutional contexts in which they are embedded (316).

There is very little prior research with regards to the concrete focus of this paper, the sharing of HR knowledge between independent firms. An exception is an article by Martin-Rios (2014) who has analysed HR knowledge flows among firms in a science park using network analysis. He proposes that HR knowledge is a source of comparative advantage that companies normally want to protect and not openly share. Based on the analysis of his data he finds support for his hypotheses that the sharing of HR knowledge is related to existing contractual relations between companies as well as the overall utility and credibility that companies ascribe to the companies that they share information with.

By looking at the way that managers in Japanese HR departments work and interact with their institutional environment, we take up the call for actor-centric research. Looking at one specific practice that we have identified to be of significant importance, the information exchange between companies, and informed by the discourse on isomorphic pressures in the change of HR practices in general and specifically in Japan, we first ask about the why, what and how of this practice. From there we develop propositions with regard to its importance and role in the ongoing changes in Japanese human resources management.

Methodology

The data used for this paper is a data subset of an interview study about the role and function of human resource departments of Japanese companies. With the topic not having received much attention yet, we decided on a qualitative, explorative research method. Data was collected through a series of semi-structured interviews with representatives of HRM departments of Japanese companies. For informants, we focussed on managers involved in developing human resources in the central HR unit of corporate headquarters or holding companies. While they sometimes stressed that they were expressing their own opinions, we interviewed them in their workplaces, approached them or were introduced to them as

representatives of their companies and assumed consent from their companies. Looking at organizational responses to HR challenges, including those related to international activities, we strived for a dataset representing Japan's large and relatively long established companies, i.e. those companies that have shaped the general understanding of the so-called Japanese employment and management system. We approached companies based on interactions through previous research projects, through exchanges at conferences and seminars, as well as through the introduction by go-betweens who could provide access to certain companies. This resulted in a sample of 32 companies, 37 if we include three large companies that were founded more recently and are sometimes described as venture companies and two smaller, yet technologically leading and internationally very active medium-sized supplier companies (Annex 1). The average number of employees per company was 40,000 people. Interviews lasted for one to two hours, were mostly conducted in Japanese and recorded with permission by the informants. The transcribed interview data was first coded into broad categories and then further fine-coded and analysed using the Dedoose software. Here, the objective was to identify common themes and connections. We triangulated our data within the sample as well as with data from five interviews with human resource consultants and data from a systematic newspaper article search on the interviewed companies.

Findings

The data presented in this article is derived from interview data from a larger project on the role and function of human resources management departments in Japanese companies. We began these interviews by asking our informants to outline one major reform to human resources management that their company had implemented in the last five years. We then followed up by asking informants whether, in the process of initiating, designing or implementing this reform, they had utilized the help of outside consultants. We asked this question and expected significant involvement of consultants based on a review of the mostly US-based literature on HRM, the high visibility of HR consultants at HR seminars that we had attended in Japan, and finally the fact that the staff of Japanese HR departments largely comes

from a generalist background and thus might lack specialist HR know-how. However, most of our informants denied significant involvement by consultants. They largely confined consultants to the role of service providers, for example as vendors for technical, training or survey solutions or as providers of benchmarking data. Some informants used consultants for information on the activities of other companies or as discussion partners. Explaining the reasons behind their decision not to employ consultants to a significant degree, companies pointed to the difficulties that consultants would have in understanding the specific situation in their companies. Further, some informants expressed apprehension about the effects that the larger involvement of consultants might have on relationships with unions and employees.

> *Perhaps, the reason why we are doing it like this is that in the case of Japan, the feelings of employees may be of great importance. So, even if we called in the HR consultants, if they proposed a drastically different new system, even if the system might be good, we have to be aware of the reaction of the employees, this is very important. Therefore, we did it this time without any HR consultants* (Company 28).

Instead, informants point to the importance of exchanges with other companies.

> *Sometimes yes, we try to contact consultants, so I might have friends in places like A, B, C [names three prominent consultancy companies] who are HR consultants, but they are more like advisors, because they don't know the real situation, what happens in the company. It is easier to communicate with other companies' HR rather than consultants* (Company 8).
>
> *Instead of using consultants to gather information, it is better to get the information directly from the companies, isn't it? The Japanese traditional companies all do it like this. While we all say this is highly confidential, the reality is that we are completely open to each other (Company 18).*

> *We hire consultants to get more information how the other companies are doing. But, basically, within our industry [names industry] we exchange information a lot. So, we don't need any consultants* (Company 14).

Indeed, consultants confirmed that clients, rather than employing them for comprehensive HR consultancy services (beginning with the analysis of the status quo, leading to the recommendation of change and resulting in the implementation of reforms), use them as a source of information about the activities of other companies. This may then lead to the provision of services, for example in leadership education or employee satisfaction surveys. Consultants seem to generate the bulk of their revenues from such service provision.

Intercorporate Exchange between Human Resources Manager in Japan

Nearly all informants regarded the exchange with other companies as important in informing their own decisions on HR policies. An analysis of our interview data allows a morphology of this inter-organizational exchange. In the following, we look at the way that such inter-organizational exchange takes place, the content addressed and the parties involved. This leads us to the underlying reasons and how companies themselves judge this activity. We provide excerpts from the interview data in the text and in tables to illustrate our findings. If not stated otherwise, these excerpts should not be seen as singular evidence but rather as representations of common practice and opinions across our sample.

HR managers describe various occasions where exchange with other companies is taking place. At the lowest level of engagement, managers might attend conferences, seminars or workshops organized by business associations, think tanks or universities. In addition, companies might have regular meetings between HR personnel at the industry level or set up their own study groups once they have gotten to know each other better. Such exchange often goes beyond industry boundaries. Finally, companies visit each other and conduct hearings. When some of the informants explained changes to their HR systems to us, they used presentation materials which they had prepared for representatives of HR departments

that had requested to visit them (Table 1). Finally, informants reported that, in addition to officially arranged occasions, they also try to set up meetings informally with people whom they got to know.

Table 1: Ways of inter-organizational knowledge exchange

Informant Company	
15	*HR goes to study, to seminars and the like, we also go to other companies, where we learn through conducting a hearing…. There are many companies in our industry that do about the same work as we do and many are of the same size as us. We have regular meetings between these companies and exchange information*.
11	*I go to academic meetings and association meetings and there are also colleagues from other HR departments. We frequently have study groups on the weekends among those colleagues. Some of these have become friends and I go to their places to gather information. There are also books and magazines.*
20	*This is very important to me, we do things like having study groups with various companies. We also organize these by ourselves. I have a network of key men in HR from companies like (names a leading automobile manufacturers, a leading electronics company and a leading retailer). With them I have various study groups.*
27	*For example, actually this material, we went to another company, said this is what we are currently doing, what are you doing, please let us know.*
17	[Asked about the reform of work practices] *we have one section in the human resources department, they deal with the change in culture. I don't know all the details, but they go out to other companies a lot to observe and to learn. Then they do their best to explain this all to our board members.*
23	*We do this a lot, actually recently, when we changed the system, we went out to ask a lot. We exchange information often with companies like (names several leading electronics manufacturers, a food manufacturer and a pharmaceutical company).*

Topics addressed at the meetings range from very concrete operational information on salary spans and rules and regulations to more policy and strategic information on the organization of global human resources management, the introduction of diversity management or changes in work culture and practices (Table 2).

Table 2: Topics in inter-organizational knowledge exchange

Informant Company	
18	*We disclose the whole salary data. I know the salary level of the senior managers, leaders and normal employees in every company. Within the industry we consult each other, where things are moving to.*
29	*We have exchange with companies from the same industry and from other industries. When we go there we ask, what has become of your wage system, what about your retirement age, what about the staff housing system… these are large topics.*
27	*In our company, female staff on managerial track also had to wear a uniform. But we heard from the other companies (names two companies from the same horizontal corporate grouping) that making them wear a uniform amounts to discrimination. So we did away with this. At this time, we had various discussions with companies about how to change smoothly, because among the 50 and 60 year old female veterans were those that said it is good to have a uniform.*
2	*So, I went to this company (provides name) a few months ago to exchange information with the HR staff… The company has appointed a president from the outside and this has led to a mind-set change, bringing in staff from foreign affiliated companies and with various experiences. I heard that a lot has changed. Whether for good or bad, we have in our own company not talked a lot about bringing in staff from the outside, not having brought in a lot of staff from the outside might have been a mistake.*
19	*For example, when the discussion about female employees and affirmative action came up, there are companies that are advanced in this area, we go there and get an interview*.

Companies share information within the same industry and might do this in regular meetings of company representatives. For example, companies shared that they meet on a biannual basis. Yet, companies also actively seek the exchange with companies outside of their industry. Companies seem to actively pursue companies that are known for certain innovations in the way they manage their human resources. Here, the industry and the size of companies does not seem to matter much. For example, a major automobile manufacturer might arrange to learn about the activities of a much smaller food manufacturer, a major electronics manufacturer about a specific program that a smaller household goods manufacturer has come up with. Some companies express that they are not interested in talking to Japanese companies, but rather seek contact to foreign affiliated companies (Table 3).

Table 3: Parties involved in inter-organizational knowledge exchange

Informant Company	
18	*The top HR managers of the companies that account for about 80% percent of sales in our industry meet twice a year.*
8	*I usually try to communicate with companies that are not like my company. I have friends in (mentions a leading retailer, electronics company and trading company).*
4	*The reform of work practices, so we do discussions with many companies (names an automobile company, a trading house, a electronics manufacturer), many famous companies come asking to us and we will package the information for them, explain it to them.*
11	*For recruitment, companies like (names a major communications company), I have an acquaintance whom I got to know through a university event. I go to talk to him regularly. Then for training, a food company, I go to ask, especially for executive training.*

Informants see such exchanges as largely unproblematic and as a give and take.

> *It is quite open. For example, if it is about the labour situation, if we want to have information, if we receive information, we also have to give information. It is a give and take.* (Company 34)

Justifying this openness, they either state that companies are not competing in human resources or a conviction that their systems are uniquely suited to their own companies and can therefore not easily be copied (Table 4).

Table 4: Reasons for sharing information

Informant Company	
8	*Most of the big companies have some pressure for globalization, but they don't have experience, practice, that's why we try to share.*
23	*Wherever we go, we help each other. Rather than a source of competitiveness, HR is a shared foundation, therefore we help each other.*
28	*Rather than a sense of competition, there seems to be that sense that people teach each other when they are in trouble.*
26	*When engineers and technicians exchange ideas with other companies, this information might be very important, might be the source of a company's uniqueness, yet in HR, what is important, is that the business and background of every company differ. A policy that is nice and useful for company A is not necessarily useful for us. This is why everyone talks openly about various things.*
33	*I went to visit 5-6 companies and asked them what they are doing. Yet, I am not an HR professional, getting to know one by one what they are doing is useful, yet what to do, what to prioritize, to say it frankly, for that it was less useful, there is no company that is the same as (names own company), each company is different.*

Yet, while most companies seem to be quite open and even willing to share sensitive information there are some companies that seem to be a bit more hesitant. For example, informants from one company reported that, while they exchange information in the industry on larger changes, there is an understanding between companies not to exchange payroll information. Another informant reported that the company had been investigated for breaches of antitrust regulations for participating in a sales cartel and therefore the company could no longer talk to others in the same industry.

In terms of judging the practice, perceptions differed. Many stretched that this was a source of information, yet that companies eventually would do their own thing. Two companies pointed to the fact that competition in the industry is not straight forward and that in a situation where the industry is undergoing restructuring keeping open channels of communication might even be positive in anticipation of future mergers. Yet, some pointed to the efforts that this approach requires from companies, indicating that it might be good to reconsider working with consultants. Finally, some pointed to the risk of everyone moving in the same direction and copying (Table 5).

Table 5: Perceptions about information sharing

Company	
8	*My boss always says, you don't have to benchmark every time because they are they, we are we, so we are in a different industry and have a different business model, so we cannot every time follow others…*
18	*If A changes, B changes, C changes, all change at once… We are all competitors, yet, if business becomes tough for one company, if there is no successor, then a large company has to absorb. For this to become a merger with positive relationships it is very important to have had communication in meetings beforehand.*
30	*This is my personal belief: Japanese companies, in many cases we tend to, the attitudes towards external benchmarking or external best practices, tend to be a little more leading towards copying [sic, English interview data].*
15	*We do this by ourselves. Yet, it is tough, if you have 60 people in human resources and you want to study everything by yourselves and do everything on your own. I think it would be good to use consultants efficiently in the future.*

Discussion

Following a call for actor-centric research in the study of human resources management (Brewster et al., 2016; Lewis et al., 2019; Rupidara & McGraw 2011), this paper has introduced the inter-organizational exchange of information by the staff of human resources departments as playing an important role in initiatives to change human resources management practices by Japanese organizations. Introducing the topic, we have highlighted previous research on Japanese companies that has pointed to strong isomorphic pressures, with companies from the same industry or business grouping moving in tandem. Yet, the mechanisms underlying this phenomenon have not been studied in much detail. Indeed, we have found evidence of companies regularly exchanging employment and salary data and thereby trying to actively ensure that companies do not diverge too far from what is perceived as the industry standard. Yet, we have also seen that companies seek information on companies from other industries when they see these as having come up with a possible solution to employment related issues they are facing. Here, they do not seem to hesitate to approach such companies directly and approached companies seem to be sharing information readily. Martin-Rios (2014), having conducted one of the rare studies that have looked at inter-organizational exchange of HRM information, found some links between companies

exchanging information that can be traced back to the existence of business transactions in other areas and the perceived current and future utility of companies to each other. Based on the widely shared assumption in the general, that is Western, HR literature, which postulates a strategic importance of HR management (e.g. Boxall, 1998; Collings and Mellahi, 2009; McDonnell 2011; Ulrich, 2015), a reluctance towards direct inter-organizational HR knowledge exchange should not surprise. Just like in other corporate domains like finance, R&D, or planning, companies can be expected to guard such information from the competition and knowledge exchange might thus only occur in special circumstances, such as those highlighted by Martin-Rios (2014). In the Japanese case, however, especially for the exchange of information between companies of different industries, direct business transactions and tangible utility do not appear to be a significant driver for direct knowledge exchange.

Instead, we propose that the openness about inter-corporate HR knowledge exchange we found in Japan has its roots in larger characteristics of the Japanese employment system, especially the prevalence of internal labour markets, which also explains why many Japanese HR managers do not consider HR to play a strategic role in the competition with other companies. The bulk of recruitment in Japan still takes place each spring with the entry of new university graduates. Companies employ them for their potential, a perceived fit in personality and the rank of the university which they attended. Employment conditions are predetermined, with large companies providing largely similar salaries and benefits to young employees (Debroux 2016). The recruitment of fresh university graduates is one of the major tasks of human resources departments, yet the highly ritualized and standardized way with which this is done does not put these departments into fierce competition. Increasing mid-career employment of employees could be seen as a source of conflict, yet so far this is mainly done for specialized tasks, usually by the recruiting divisions themselves and not the HR departments, and large companies also very rarely engage head hunters to lure away staff from each other (Peltokorpi & Froese 2016). Thus, so far, companies do not actively compete for employees by differentiating their employment conditions. In our

study, one company that had introduced a scheme to identify and then promote employees with leadership potential early on in their careers reported that it had not yet advertised the scheme actively to potential new employees or even to its own existing young employees. The scheme was introduced to develop leadership, but not to attract employees. We thus propose that a lack of competition in recruitment contributes to a generally open exchange across company borders among the staff of HR departments.

Internal labour markets also mean that companies rely largely on internally promoted and on-the-job-trained employees in human resources departments. Based on the still common practice to rotate employees, especially starting them off in sales, these employees might know the company well, but lack specialist knowledge in managing human resources. They might eventually become specialists in administrative matters, yet lack the capability to strategically develop human resources in line with changing environments. We thus suggest that the frequent exchange among companies is a way to make up for a lack in specialist and strategic knowledge.

We also suggest that having knowledge of matters outside of HR and being well connected within their organizations leads to suspicions about the potential of outside consultants. These might have specialist knowledge and be able to advise companies on strategic matters, yet they are perceived as lacking understanding of the actual working of organizations, so that solutions suggested by them are perceived as unrealistic or even as disturbing harmonious employer-employee relationships, the continued importance of such relationships highlighted to us by many of our informants.

We further propose that the active exchange between the members of HR departments goes together with a gradual trend towards professionalization in Japanese HR management. Companies have reorganized into holding companies and within holding companies have installed HR units. Holding company HR units were described to us as focussing on tasks such as the integration of employment standards across group companies in and outside of Japan, the introduction of global employee databases,

developing talent management, introducing leadership training and development programs, conducting diversity initiatives, or the reform of work practices (*hatarakikata kaikaku*). Our interviewees also reported expectations towards central HR units to serve as business partners or consultants to divisions. Informants report that such expectations often do not develop from within HR departments or operational divisions. Instead, they result out of demands by the government such as for diversity initiatives or work practice reforms or from board members, who have realized that companies need to look beyond HR operations in Japan to truly globalize. Some companies have introduced the position of chief human resources officer (CHRO), this further emphasizing the increasingly strategic role to be played by human resources management units in the future. Interviewees also reported to us that traditional HR tasks such as running payrolls or welfare systems or dealing with in-house unions have been outsourced or reduced. Thus to stay relevant, HR departments need to redefine their own position in corporations. We propose that this uncertainty about the future of HR in corporations as well as the introduction of new tasks that require specialized knowledge has led to an increased willingness and need of HR staff to communicate amongst each other. We suggest that it is this in particular what explains the communication across industries, with some interviewees reporting a lack of like-minded people in their own companies. HR personnel looks to the outside for suitable partners for discussion, but also to legitimize its actions and to receive recognition for innovative solutions. With regards to this, we need to admit some possible self-selection among the company informants that agreed to be interviewed. Many of these were from companies that in one way or another received some recognition by other companies for the way they managed their human resources. Yet, we found that companies perceive themselves to be advanced in one area and behind in another and suggest that this contributes to mutual exchange relationships. We propose that this exchange among companies of very different industries and sizes might eventually also lead to a new shared way of managing human resources in Japan. As has been

outlined, institutional theory proposes that such a development might lead to isomorphic pressures (DiMaggio & Powell, 1983; Kossek 1987) and the spreading of practices to lower tier companies.

Going beyond the Japanese case, we propose that different types of isomorphism tend to dominate in different types of labour markets (see also Table 6). HR knowledge in open labour markets can be expected to be predominantly spread through business consultants, educational institutions (business schools) and HR professionals at times of job changes. Companies will here guard their HR knowledge as strategically important, but will develop normative assumptions about desirable practices via externally validated conduits, which will ultimately lead to normative isomorphism. In internal labour markets, including those for HR managers, the HR function is considered to be less strategically important. HR knowledge is only to a limited extent internalised by the external hiring of HR professionals, nor do new business school graduates have any real power to inform HR reforms. Instead, internally developed HR managers seek here direct knowledge exchange with like-minded and -positioned colleagues in other companies within and outside their own industries, while relying on consultants predominately for additional knowledge input and the provision of specific services. This type of knowledge exchange is likely to lead ultimately to mimetic isomorphism.

Table 6: HR Knowledge Exchange and Isomorphism

	External labour markets	**Internal labour markets**
Perception of HR as a strategic business function	High	Low
Sources of HR knowledge	Inter-corporate exchange (-) Business consultants (++) Business schools (+) Professional HR managers (++) HR seminars (+)	Inter-corporate exchange (++) Business consultants (+) Business schools (-) Professional HR managers (-) HR seminars (+)
Dominant type of isomorphism	Normative	Mimetic

Note: (-) = unimportant; (+) = some importance; (++) = very important
Source: the authors.

Conclusions

With this paper we have followed a call for actor-centric research in the study of human resources management. Looking at managers involved in the management of human resources management in Japan, we have found that these engage in active knowledge exchange with managers from other companies. We have related this practice to the characteristics of the Japanese labour market and from here suggested that there exists a general link between the state of labour markets and how the adaptation of new practices is occurring. We suggest that internal labour markets favour inter-organizational exchange and lead to mimetic isomorphism while external labour markets favour the development and spread of standards through business schools, consultants and the movement of HR professional: normative isomorphism.

Working with qualitative interview data from a limited number of companies from one country we have formulated our findings as propositions and thus see opportunity for future quantitative research to further test these. We also acknowledged that the companies in our sample based on a possible self-selection bias might represent those that have shown themselves to be more innovative in the introduction of new management practices. Between these companies we have seen lively inter-industry exchange and it might be interesting to follow up with an industry study that also looks at less innovative companies. Here, we suspect more intra-industry learning to be taking place with follower companies trying to keep up with the leaders in their respective industry. This suggests a two-tiered, sequential development pattern from first inter-industry to then intra-industry exchange.

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Annex 1: Interviewed Companies (employment data mostly as of March/April 2019)

Number	Industry	Employees in 1000
1	food/beverages	10-50
2	food/beverages	10-50
3	chemical	10-50
4	food/beverages	1-10
5	electronics	>100
6	electronics	10-50
7	consumer goods	1-10
8	industrial supplies	10-50
9	chemical	10-50
10	media	1-10
11	industrial goods	10-50
12	retail	10-50
13	retail	10-50
14	trading	10-50
15	software	1-10
16	communication	50-100
17	transport	10-50
18	food	10-50
19	machinery	10-50
20	electronics	>100
21	transport	10-50
22	electronics	50-100
23	electronics	10-50
24	industrial supplies	< 1
25	industrial supplies	< 1
26	industrial supplies	50-100
27	chemical	1-10
28	retail	50-100
29	food	1-10
30	beverages	10-50
31	transport	10-50
32	household goods	10-50
33	healthcare	10-50
34	machinery	50-100
35	media	1-10
36	trading	50-100
37	consumer goods	1-10

Exporting Sake from Japan: Application of Cross-border Electronic Commerce

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AJBS 2020 Conference

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Abstract

Although Japanese sake has a history and tradition of over 300 years, it has become a popular alcoholic beverage globally in recent years. While domestic demand (internal demand) of sake has been declining steadily in Japan since 1970s, foreign exports (external demand) have been increasing rapidly in recent years. The impressive growth of overseas sake consumption is largely driven by the growing popularity of Japanese food overseas as well as e-commerce via the Internet. The present study examines Japan's sake industry with special reference to small and medium-sized sake breweries. Although small sake breweries have limited management and financial resources, they are able to export sake to overseas customers online via domestic and foreign websites. Based on store operating fees, we run simulations to establish criteria for website choices. This paper is the first unprecedented study of Japanese sake exports via cross-border electronic commerce (CBEC).

Keywords

Sake, exports, Cross-Border EC (CBEC), Small and Medium-sized Enterprises (SMEs), New international business entry mode

1. Introduction

Alcohol has been consumed by people around the world for centuries. The consumption of alcohol has increased steadily over the last three decades. The majority of academic research focuses on wine and beer consumption in Western countries (Freeman 2001; Hussain et al. 2007; Pettigrew, 2002). For example, Hussain, Castaldi and Cholette (2007) examined the wine consumption of U.S. consumers using an regression analysis. They subsequently conducted another study by comparing four old world wine-producing countries (France, Germany, Italy, Spain) and five new world countries (USA, Australia, Chile, Argentina, South Africa). Pettigrew (2002) used the grounded theory to analyze beer consumption in Australia. More recently, Aquilani, Laureti, Poponi and Secondi (2015) examined the beer choice among consumers.

Unlike consumption of wine and beer in Western countries, sake has been historically a traditional alcoholic beverage in Japan for more than 300 years. Despite the cultural uniqueness and importance of sake in Japanese society, relatively little academic research exists on sake. Hence, little is known about the sake industry both inside and outside of Japan. From a historical perspective, Francks (2009) suggested that sake has always maintained a unique special status in Japanese society even before the era of modern capitalism. In an attempt to explain the sake industry in Japan, Lee and Shin (2015) used a storytelling approach to analyze how to market traditional Japanese sake to entice customers.

While sake consumption is steadily declining in Japan, sake consumption is expanding rapidly in overseas markets. The Internet technology offers tremendous export opportunities for Japanese sake breweries. The objective of this study is to explore the export potential of sake by small- and medium-sized enterprises (SMEs) via cross-border e-commerce (CBEC). In the sake industry, the traditional dominance of large multinational enterprises (MNEs) could be replaced by an international network in a cyberspace. This paper is organized as follows. The next section presents an overview of sake industry in Japan with a special reference to the development of small-and medium-sized enterprises (SMEs). The case of Asahi Shuzo Brewery, a Japanese mid-sized sake company, is presented as a success story in revitalizing the sake industry. Section 3 examines exports of sake from Japan by country and region. Section 4 identifies the new channel

for distributing sake via cross-border e-commerce (CBEC) with a focus on several online shop websites: Amazon, eBay, Tmall, and Rakuten. The final section concludes with a summary of positioning exports of sake by small sake breweries via CBEC, especially for the Chinese market using the smartphone technology.

2. An Overview of Sake Industry in Japan

The consumption of sake has steadily declined in Japan over a long period of time due, in part, to shrinking population and changing consumer tastes among the young generation. The is reflected by the fact that the domestic consumption of sake declined by 37.5 percent from 1.6 million kiloliters (ℓ) in 1970 to 1 million kiloliters in 2000 (see Figure 1). Japan's sake industry is facing an uncertain future as sake consumption declined further to less than 0.6-0.52 million kiloliters since 2010.

(Put Figure 1 here)

The consequence of declining sake consumption results in a 25 percent reduction in liquor tax revenues between 1975 and 2017. As shown in Figure 2, the contribution of sake to overall liquor revenues declined from 30 percent to less than 5 percent during this period.

(Put Figure 2 here)

According to the Japan's National Tax Agency (2018), the number of Japanese sake breweries was drastically reduced by 70 percent from approximately 4,000 in the 1970s to roughly 1,400 in 2018. Among these sake breweries, 32.7 percent of them have experienced operating deficits, with 20 to 40 companies declare bankruptcy or out of business each year. The sake industry is currently dominated by six major companies[i] which produce a combined output of more than 10,000 kiloliters a year, accounting for nearly half of Japan's domestic output. In contrast, the remaining 1,128 companies (79.7% of the companies) produce only 200 kiloliters or less. These small sake companies have an average of 19.1 employees in each company, with annual sales of roughly 300 million yen and operating profit of only 6.7 million yen. Despite of the continuation of sake culture with a tradition of more than 300 years prior to the Edo era[ii], there are clear

indications that the Japanese sake industry is on the verge of further decline and possible extinction if nothing is done to revitalize it.

Table 1 shows the declining trends in Japanese sake industry. The data reveals that sake breweries are predominantly SMEs in Japan. In order to understand the primary reasons for formation of sake breweries, Teikoku Bank (2017) conducted a survey of 1,254 sake companies. It was found that there are 903 long-established sake manufacturers with over 100 years of history, accounting for about 70% of the total. Based on the survey, 1/3 of these sake companies (413) were established prior to the Edo period in 1886. The establishment of these sake companies is not a direct result of modern machinery or establishment of manufacturing factories. Rather, these sake companies were established prior to the pre-capitalism period or at an early stage of home-manufacturing industry.

(Put Table 1 here)

In Japan, the sake industry is historically produced under a fairly complex system. In the brewery (kuramoto), the brewmaster (Toji) who is the chief executive to manage and oversee all aspects of the Sake-making processes (Japan Sake and Shochu Makers Association). Since sake is produced by division of labor and collaboration among craftsman groups, sake breweries use a traditional method of producing sake such as “Kurabito” who is a professional craftsman of various processes, while “Koojishi” is responsible for making Kooji. Sake is made from rice, water, and "Kooji" which is made from rice. It should be noted that rice contains amylase and glucoamylase, which are degradation enzymes produced by Kooji mold, an important stage in brewing sake.

Japanese sake is therefore considered not only as an alcohol beverage product, but is also as a unique cultural product with a long history in Japan. The harmony is therefore established by a combination of the “taste of the land” and three blended ingredients of rice, water, and Kooji. The quality of sake is influenced by the production pattern and quality of rice, depending on the weather conditions such as temperature and sun light. Hence, Japanese sake quality is determined,

to a large extent, by the “experience and intuition” of the chief executive Toji, which is a rare phenomenon in manufacturing. Unlike the production of automobiles and home appliances, sake is unlikely to be produced at the same quality level, even if it is transferred to overseas operations via foreign direct investment (FDI). It is generally believed that Japanese sake must rely on Japan’s traditional method of production in order maintain its high quality.

In recent years, some sake companies have explored the use of modern technology to develop “a new Japanese sake”. For example, Asahi Shuzo Company Limited in Yamaguchi Prefecture, founded in 1948, was on the verge of bankruptcy in 1991. At that time, the third president introduced a new brand “Dassai” (a pure rice Daiginjo) with a slogan of “not for drinking and not for the sole purpose of sales, for sipping and enjoying.”[iii] The success of Dassai is now ranked as the top Daiginjo sake production in Japan. Although Asahi Shuzo is still considered as a medium-sized enterprise, the firm has become the top 8 sake companies in 2018 in terms of sales. In 2018, the company exported its sake to more than 30 countries around the world. In 2019, the company’s export sales exceeded the domestic sales for the first time among Japanese companies.

Why is Asahi Shuzo so successful in the Japanese sake industry? Several factors contribute to the company success. First, the traditional Toji system was abolished by the company. Instead of relying on “experience and intuition” of Toji, the company has switched to information and communication technology (ICT) to operate “numerical value and data management” such as temperature, humidity, alcohol content, etc. Second, in 2015, Asahi Shuzo replaced the traditional Japanese brewery house with a 12-storey modern building that enabled mass production while maintaining quality. Third, the company is able to produce sake with a constant room temperature all year round in four different seasons. Finally, the company is fortunate to have a leader with an “entrepreneurial spirit” who is determined to revitalize the declining sake industry.[iv]

With the exception of major sake companies, Asahi Shuzo is the only Japanese SME to actively use CBEC for sales of sake products. It is interesting to note that “Dassai” is now available online on Asahi Shuzo's company website. Moreover, their sake can also be purchased online in many countries on several major foreign websites such as Amazon, eBay, Tmall, along with other

websites involving CBEC.

3. Export of Sake from Japan

In recent years, however, sake exports have increased significantly both in terms of volume and value due to Japanese food boom in foreign countries. As shown in Figure 3, the export volume of sake was 25,746 kiloliters in 2018, an increase of 3.65-fold since the beginning of the 21st century. The export value of sake exceeded 10 billion yen in 2013 and grew to more than 20 billion yen for the first time in 2018. Overall, sake experienced a rapid growth in overseas exports, achieving a growth of 6.96 times since 2001.

(Put Figure 3 here)

It should be noted that the export share of sake still represents only 3-4% of the domestic consumption. Hence, sake cannot be regarded as a full-fledged export industry at this point. The next section explores the possibility of exporting Sake to foreign countries by SMEs in Japan.

According to Japan's Ministry of Finance trade statistics (2018), Japanese sake is exported to 71 countries. The top 10 countries (or regions) represent 87.1% of the total value and 85.5% of the total volume. Of particular interest is that the top 5 countries (or regions) are the U.S., Hong Kong, China, South Korea, Taiwan, accounting for 77.5% of the total value and 76.8% of the total volume. These data suggest that consumption of sake is concentrated in only a few selected overseas markets.

Table 2 shows sake exports by country and region in 2018. Of particular interest is its unit price (i. e. yen /ℓ), which is derived from the export value (yen ¥) divided by the total quantity (ℓ). The unit price of sake was led by Hong Kong (1,800 yen), followed by Singapore (1,372 yen), the United Kingdom (1,087 yen), and the United States (1,061 yen). All these four countries and regions surpass over 1,000 yen per liter (approximately US$9.26 given US$1=108 yen). In contrast, the next group of countries and regions are South Korea (413 yen), Taiwan (604 yen), and China (865 yen), which are less than half of that is spent in Hong Kong (1,800 yen). These

data reveals that the market conditions differ across countries for sake exports.

(Put Table 2 here)

Figure 4 shows the market characteristics of the top 8 countries and regions in a scatter plot diagram. The size of each market is represented by a circle. It is evident that Hong Kong is the choice destination for high-priced premium sake exports, while South Korea is the country for low-priced sake. In terms of growth potential, the U.S. is the largest market for sake exports from Japan. For Japanese sake breweries, they could rely on these characteristics to determine their choose destinations for exports, especially those that are considered as SMEs who have only a few varieties of sake with limited price ranges.

(Put Figure 4 here)

4. Cross-border Electronic Commerce (CBEC)

Electronic commerce (EC) has transformed the global business environment as a result of widespread use of ICT. In particular, CBEC has emerged as a new shopping trend when online shopping is feasible across national borders via the Internet. According to UNCTAD (2017), CBEC transactions amounted to approximately US$189 billion worldwide in 2015. Despite the growing importance of CEEC, there are no official statistics on CBEC across countries.

The Japanese Ministry of Economy, Trade and Industry (METI) has conducted on an annual survey on e-commerce since 2010 with a focus on three major countries: Japan, the United States, and China. Moreover, the user surveys of their own shopping websites have been conducted by “eBay” in the U.S. as well as Alibaba in China. These features are common, with CBEC expected to grow at a much faster rate than the other EC growth rates, with an annual growth rate of more than 20%. For Japanese SMEs, CBEC offer new business opportunities even if they do not have financial and human resources for international expansion. A case in point is the sake industry which is the focus of this study.

There are some logistics challenges facing Japanese SMEs in exporting sake overseas via CBEC. First, a Japanese sake company should address several marketing issues such as the target market, product type, and pricing strategy for marketing sake. Second, a Japanese sake company may consider creation of an attractive website in foreign languages with livestreaming or a product-related customer video. Third, since most Japanese sake brands are not well-known in foreign markets, a sake company needs to enhance its product and brand recognitions to overseas customers. Lastly, a Japanese sake company needs to secure adequate resources, both financial and human, to ensure smooth and efficient operations in exporting sake to overseas customers.

In addition to domestic company websites, SMEs could rely on well-known shopping websites. A majority of online cross-border shoppers with parcel delivery have used Amazon (23%), Alibaba (16%), eBay (14%), accounting for 53% of the total CBEC transactions (International Post Corporation, 2018). There is an opening fee when a company decides to sell a product online in an online shop. These online shops normally charge a fee or commission from the product company when an online transaction is successfully completed. These fees and commissions could be a fixed amount or a variable fee, or both, depending on the online shops.

Table 3 compares the opening fees between three major foreign online shops (Amazon, eBay, and Tmall) with Rakuten which is Japan's top online shop. We have chosen Tmall in our analysis because Tmall is the website responsible for Alibaba Group's CBEC. As seen in Table 3, Amazon charges a fixed fee of US$ 39.90 per month plus a commission based for Amazon, while Tmall charges a fixed sum of US$417-833 per month, plus a security deposit of US$25,000 for technology service fee. In terms of opening fees, eBay and Rakuten are somewhere in between Amazon and Tmall. Hence, we offer the following proposition:

Proposition 1: Small sake companies will choose an online retailer with a low opening fee in exporting sake if the sales volume is small via CBEC.

(Put Table 3 here)

Based on the data in Table 3, we run simulations for these four online websites with two different scenarios. In scenario 1, the costs of an opening fee are crucial in determining the choice of an online website, especially for a small sake company. For example, this sake company decides to market sake via Amazon. If the sales of 100,000 yen per month (= unit price 1,000 yen x 100), then the company total cost for using Amazon is estimated to be 25,239-34,239 yen. This amount is derived from an opening fee of US$39.9 per month + a sales commission of 6,000 - 15,000 yen + a contract fee of $ 1.35 x 100 times = 25,239 - 34,239 yen (the exchange rate is based on US$1=110 yen). The total cost of using Amazon would be approximately 25-34% of the company sales. If the company decides to use eBay, then the total cost would be 11,080-48,651 yen, representing 12.1% - 49.7% of the sales.

If a small sake company decides to use Tmall, it is required to pay $ 417-833 per month for a technology service fee, plus a settlement fee of 1% based on sales. This means that this company is required to pay a total of 55,870-101.630 yen. Compounding the financial burden to the small sake company, Tmall requires US$25,000 for security deposit at the start. It is likely that a small sake company is unable to use Tmall if monthly sales amount is only 100,000 yen.

In comparison, Rakuten charges only a service fee of 4% (4,000 yen), plus an additional fee of 19.500 yen in advance of domestic store opening. So the total cost is 23,500 yen (23.5% of the sales amount). For a small sake company, if the monthly sales are 100,000 yen, the company is likely to choose Rakuten first, then eBay, Amazon, and finally Tmall in accordance with the total costs.

In scenario 2, we assume that sake sales reach 1 million yen (unit price 1,000 yen x 1000) per month. Using the same methodology, we estimate that the total cost for using Amazon would be 218,889 - 317,889 yen. The cost for using eBay would be 93,959-176,640 yen. While the cost for Tmall would be 285,037-330,797 yen, the cost for Rakuten will be around 100,000 yen. For Tmall, we estimate that the deposit will be divided into 12 months, assuming it will be used for one year. The cost difference between these four companies is expected to decrease to around 10-30%. Under this scenario, Rakuten and eBay are close to each other at a low level in terms of costs,

whereas the cost for Tmall and Amazon are close at a high level.

Our simulation results suggest that the ratio of online shop opening fees to sales for EC malls is influenced by the sales volume. As sake sales increase, the cost ratio is expected to decrease for a Japanese sake brewery. Based on the foregoing discussion, we develop the following two propositions:

Proposition 2: With respect to CBEC, the total cost ratio of using an online shop is likely to diminish if sales amount of sake increases.

Proposition 3: Small sake firms will select Rakuten for marketing sake online to overseas customers as a startup at the beginning of CBEC. It is likely that these firms will switch to eBay or Amazon if sales are expected to be large.

A key question is whether the choice of an online store may change over time. We use the simulation results to demonstrate the operating fee structures for these four online shops in Year 1 and Year 2 respectively (Fig. 5 and Fig. 6). Figure 5 shows companies with sales up to 15 million yen in the first year. Figure 6 shows companies with sales over 15 million yen in the second year. In both figures, the horizontal axis represents sales and the vertical axis represents store opening costs. All these figures are based on yen (the exchange rate is 1 dollar=110 yen based on an average value in 2019) because sake is exported from Japan. Since Amazon only accepts sake orders on Japanese site (Amazon.co.jp), it is appropriate to report store operating fees in yen.

(Put Figure 5 here)

(Put Figure 6 here)

The simulation results suggest that Tmall is disadvantageous in the first year due to its huge fixed costs. However, Tmall is a viable option after the second year. Rakuten is advantageous due to consistently low transaction costs for exports of sake in small quantity. Amazon and eBay are

more or less the same, but slightly more expensive than Rakuten. Since both Amazon and eBay are more popular than Rakuten in the global marketplace, it is likely that a small sake company might choose to use Amazon or eBay if they expect their sales to increase, particularly in the U.S. and European markets. From the second year onwards, Tmall is clearly advantageous in the Chinese market because it does not require an initial cost. Based on the above discussions, we offer the following proposition:

Proposition 4: Given the operating fees charged by online shops, increased exports of sake will result in a wider choice of online retailers available for small Japanese sake breweries.

5. Discussion

In addition to the store opening cost associated with CBEC, small sake companies also face other cost-related issues such as language translation, product promotion, customer complaints, and foreign delivery. For this reason, the extra costs for a small sake company could be added on top of the store opening fee for using a particular online store.

It is likely that the combined cost could be up to 30% or more of the sales. For small sake companies in Japan, it is not easy to absorb these additional costs to cater to foreign customers.

As previously discussed, the success of CBEC is dependent on support of the chosen retailer. This is particularly important for SMEs to expand overseas. A case in point is Inagora, a company that was established by Chinese in Japan. The company uses a platform called “Wando” developed for CBEC in Chinese language. Wando is a smartphone app for Chinese consumers who specializes in Japanese product.[v]

Chinese consumers use major Chinese payment methods such as Alipay, Wechat Pay, and Apple Pay. On the other hand, Japanese companies get a convenient structure in which sales at stores can be received in yen only through Inagora. It should be noted that Inagora's operating fee is 35% of sales.[vi]

If a small sake company is able to sell 100,000 yen per month (in scenario 1), then the store opening fee for Amazon was approximately 25-34%. In comparison, the store opening fee was approximately 56-102% for Tmall in addition to security deposits. So Tmall is not economically viable for small sake companies.

The additional costs associated with CBEC can be challenging for small sake breweries. These additional costs include translation, advertising, and overseas shipping costs. Unlike large breweries, small sake companies may find it difficult to bear these additional costs. The advantage of choosing Wando is that it absorbs these additional costs with a low store opening fee of 35%. The choice of Wando is viable even for a small amount of exports. Also, Wando is able to attract customers through many network alliances. It has cooperated with China's second-largest EC platform “Jingdong (JD.com)”, and linkage with “ Taobao ”(C2C) which is part of the Alibaba group.

It is interesting to note that Inagora began the sale of Japanese sake “Dassai” in January 2018. In July 2019, four brands from Iwate Prefecture's "Nanbu-Bijin" in the Tohoku region of Japan participated in Wando. Furthermore, in September 2019, Wando began selling the “Tateyama” brand of “Tateyama Sake Brewery” from Toyama Prefecture in the Chubu region. In the future, SMEs in Japan are more likely to rely on Wando to export sake to China.

6. Conclusion

This article is the first study on exports of Japanese sake via CBEC. The present study explores the export potential of sake by small and medium-sized sake breweries in Japan. While the domestic market for Japanese sake is shrinking fast, the foreign market for sake is expanding rapidly around the world, especially in the Asia-Pacific region. When using foreign online retailers, there are uncertainties surrounding the logistics of delivery as well running out of stock. Hence, the right choice of an online retailer is of critical importance to the success of a Japanese sake brewery. We used store opening fees to run simulations to predict the ultimate choice of online retailers. The findings indicate that the choice is dependent on the sales amount as well as

the time periods. With the rise of Internet and growing digitalization, small and medium-sized sake breweries are able to use online shops to market sake to overseas customers via CBEC.

This study contributes to the academic literature in several ways. First, despite the fact that Japanese sake is a well-known product around the world, there is paucity of research on sake both inside and outside Japan. This study is an attempt to fill the research gap in this area. Second, we contribute to the international business literature, which has largely focused more on manufacturing and service sectors. The present study focuses on the exports of sake which is regarded as a unique cultural product in Japan. Third, we combine the study of sake and CBEC which are two separate research fields. We argue that it is feasible to revitalize Japan's declining sake industry via CBEC.

Despite of the tradition of more than 300 years, Japanese sake industry is now facing an uncertain future. Given the declining population and changing tastes in Japan, the domestic sake market is shrinking fast. There are serious repercussions for small and medium-sized sake breweries if the current trends continue. Since sake is a cultural product with very strong local dimensions, Japanese sake companies are unlikely to choose FDI for overseas expansion. With increasing digitalization, small sake companies in Japan could rely on foreign online retailers to export sake to foreign countries via CBEC. It is hoped that this study will stimulate discussion and further research in this area.

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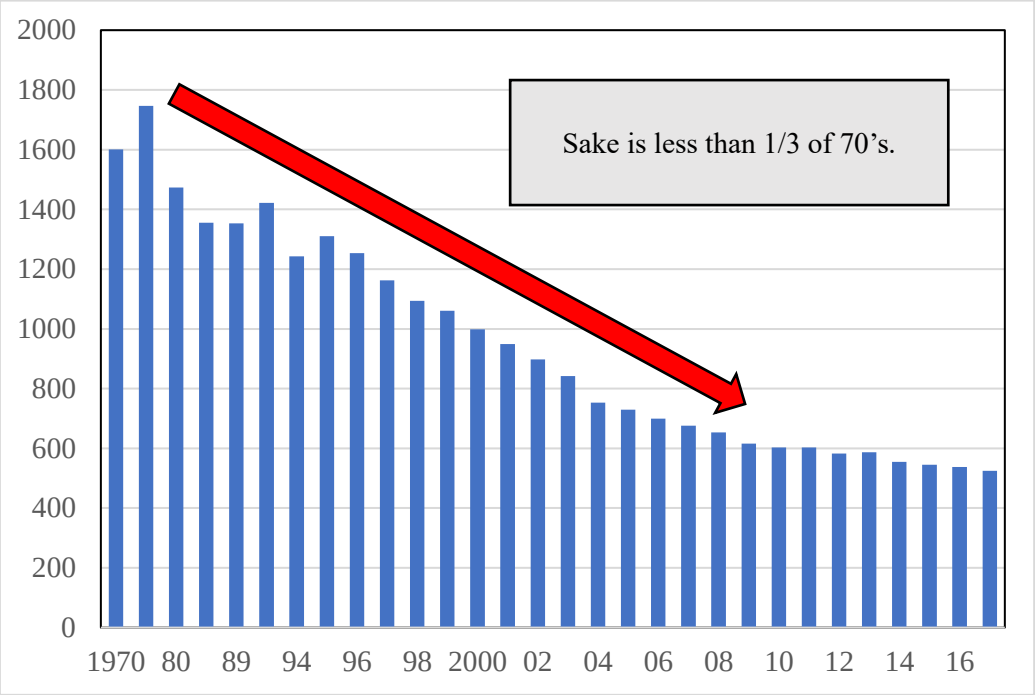
岩手県「南部美人」の WEB サイト：https://www.nanbubijin.co.jp/

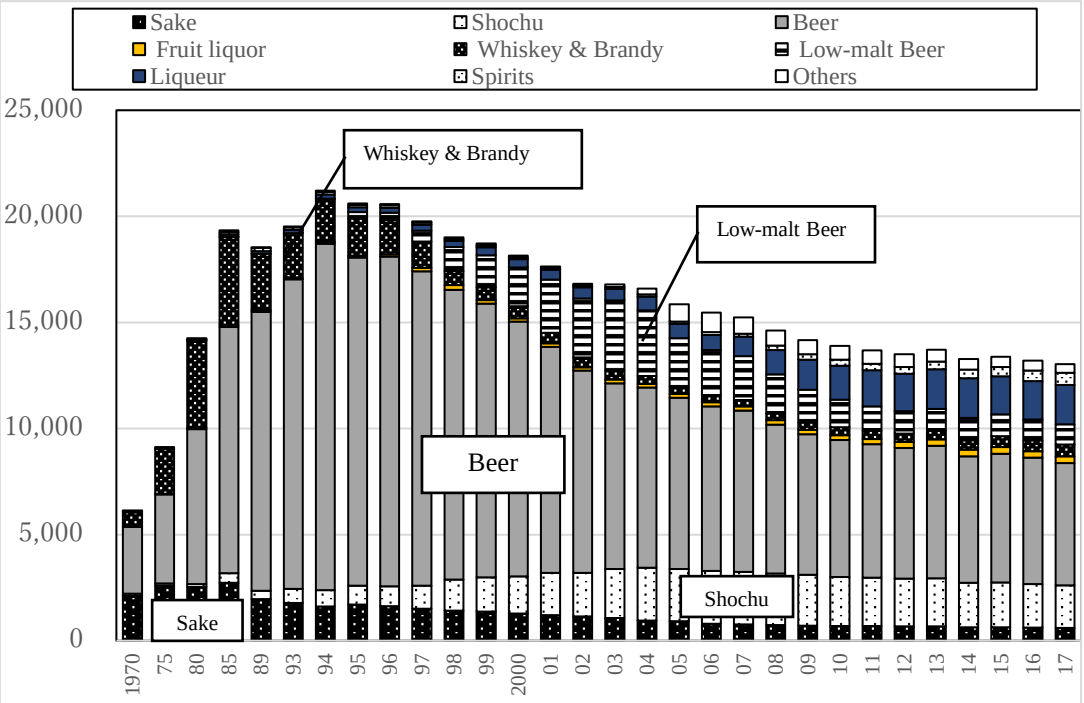
インアゴーラ（INAGORA）社の WEB サイト：http://inagora.com/

Fig. 1　Domestic shipment volume of Sake (1,000 kl)



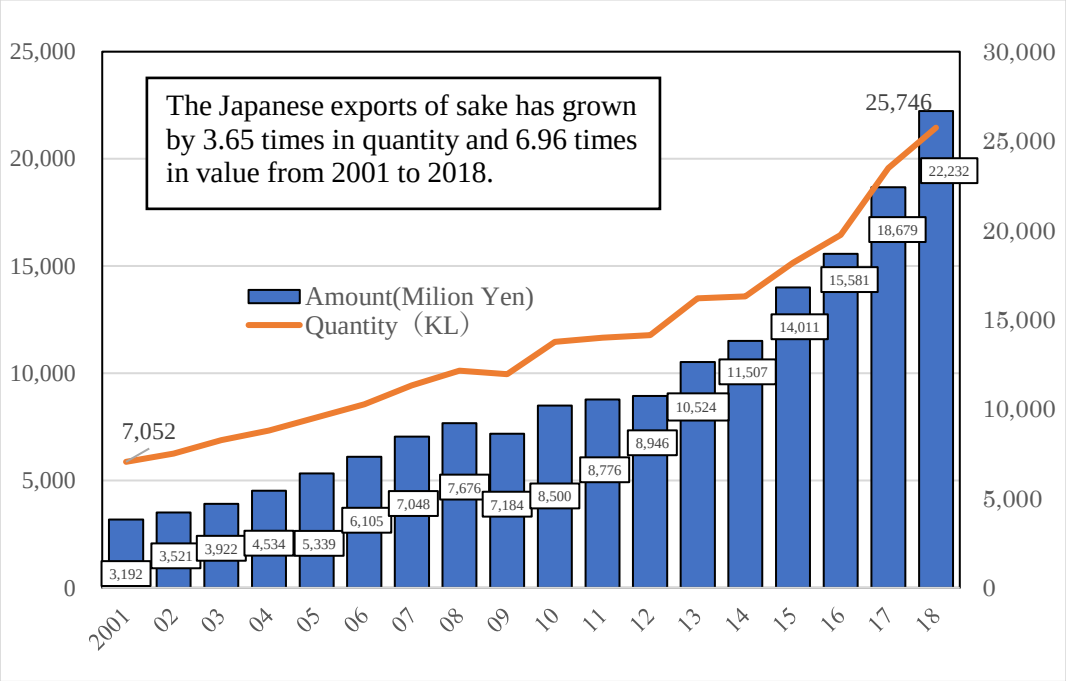
Source: Computed by the author from the "Booking of Sake" March 2019 edition of the National Tax Agency.

Fig. 2　Changes in liquor tax levies in Japan (100 million yen)



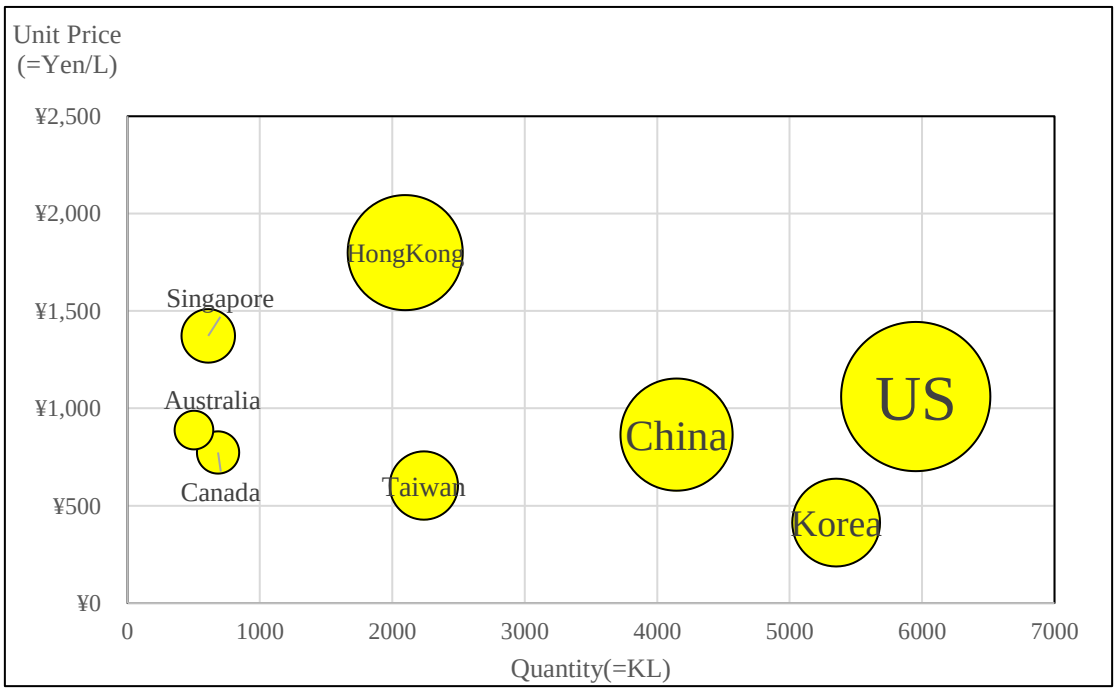
Source: Computed by the author from the "Booking of Sake" March 2019 edition of the National Tax Agency.

Fig. 3　Japanese Exports of Sake, 2001- 2018



Sources: Data are derived from the Japanese Ministry of Trade statistics 2019

Fig. 4　Market Characteristics by country



Sources: Based on data derived from the Japanese Ministry of Finance Trade Statistics.

Fig. 5 First Year Operating Fees (Transaction Cost)

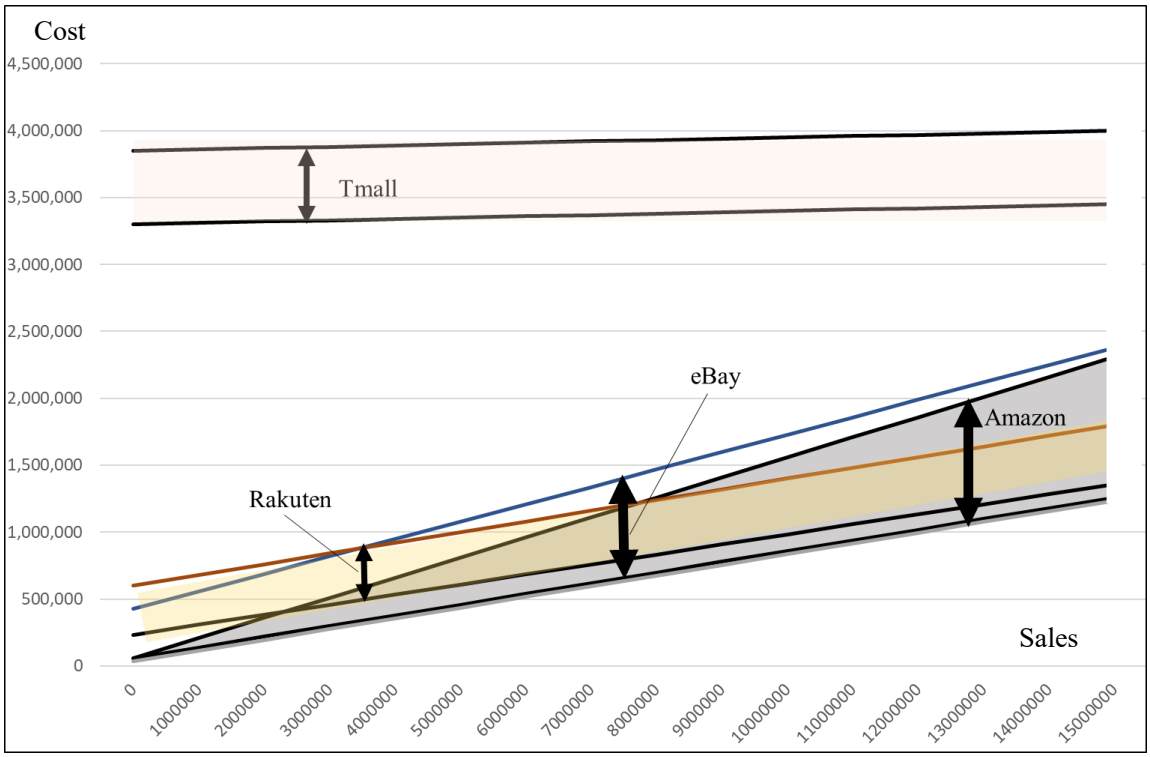


Fig. 6 Operating Fees (Transaction Cost) after Second Year

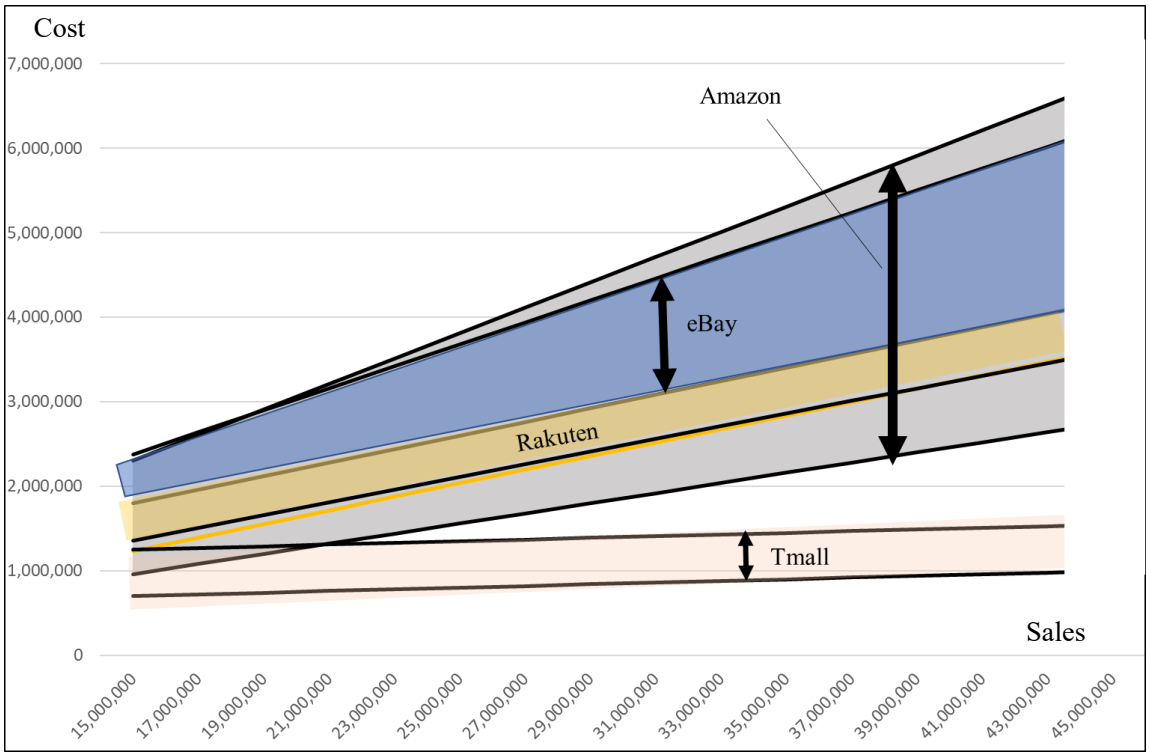


Table 1　Trends of Japanese Sake companies

	Big Company	SM Company				Individual			
Year	More than 300 million yen in capital, More than 300 employees	More than 300 million yen, 300 employees or less	300 million yen or less, More than 300 employees	300 million yen or less, 300 employees or less	Subtotal	300 employees or less	SMI total	Total	SMI ratio
1999	10	8	8	1,846	1,862	135	1,997	2,007	99.5%
2000	10	8	8	1,821	1,837	130	1,967	1,977	99.5%
2001	9	8	7	1,781	1,796	124	1,920	1,929	99.5%
2002	8	7	6	1,764	1,777	119	1,896	1,904	99.6%
2003	6	9	6	1,700	1,715	115	1,830	1,836	99.7%
2004	7	8	4	1,653	1,665	110	1,775	1,782	99.6%
2005	7	5	4	1,613	1,622	108	1,730	1,737	99.6%
2006	6	5	2	1,580	1,587	105	1,692	1,698	99.6%
2007	6	4	2	1,539	1,545	94	1,639	1,645	99.6%
2008	6	5	1	1,512	1,518	92	1,610	1,616	99.6%
2009	6	4	4	1,479	1,487	92	1,579	1,585	99.6%
2010	5	4	5	1,460	1,469	90	1,559	1,564	99.7%
2011	5	5	4	1,451	1,460	84	1,544	1,549	99.7%
2012	6	5	3	1,422	1,430	81	1,511	1,517	99.6%
2013	6	5	3	1,391	1,399	74	1,473	1,479	99.6%
2014	6	4	3	1,369	1,376	69	1,445	1,451	99.6%
2015	6	5	3	1,340	1,348	67	1,415	1,421	99.6%
2016	6	3	3	1,326	1,332	67	1,399	1,405	99.6%

Source: Japan's National Tax Agency "Changes in the number of sake manufacturers" (2018)

Table 2　Japanese Sake exports by country（2018）

Rank	Country	Amount (Million Yen)	Relative share	Cumulative share	Quantity（kl）	Relative share	Cumulative share	Unit Price (=Yen/L)
1	US	6,313	28.4%	28.4%	5,952	23.1%	23.1%	1,061
2	HongKong	3,774	17.0%	45.4%	2,097	8.1%	31.3%	1,800
3	China	3,587	16.1%	61.5%	4,146	16.1%	47.4%	865
4	Korea	2,212	9.9%	71.5%	5,351	20.8%	68.1%	413
5	Taiwan	1351	6.1%	77.5%	2,238	8.7%	76.8%	604
6	Singapore	837	3.8%	81.3%	610	2.4%	79.2%	1,372
7	Canada	529	2.4%	83.7%	684	2.7%	81.9%	773
8	Australia	446	2.0%	85.7%	502	1.9%	83.8%	888
9	Vietnam	440	2.0%	89.1%	462	1.8%	86.8%	952
10	UK	324	1.5%	87.1%	298	1.2%	85.0%	1,087
11	Others	2,419	10.9%	100.0%	3,407	13.2%	100.0%	710
	Total	22,232	100.0%		25,747	100.0%		863

Source: Created by the authors from the Japanese Ministry of Finance Trade Statistics.

Table 3　World leading EC mall opening fee, 2019

EC mall	Country	Monthly (fixed amount)	Sales commission /Sales	Others
Amazon	US	$39.9	6 -15%	Contract fee $ 1.35 / 1 item
eBay	US	$26.9-324	4～9%	Selling fee $ 0.10 / item, PayPal fee 4%. If the undervalue by consumer continues or the frequency of trading is low, the transaction is suspended.
Tmall	China	$417-833		Security deposit $ 25,000, technology service fee $ 417-833 / month, Alipay fee 1%, company with own brand outside China
Rakuten	Japan →Overseas	Zero	Zero	Service fee 4% only. However, additional branch registration fees (depending on sales size) are required separately in Japan

Source:　Based on information derived from company announcements, which are subject to change.

Endnote

[i] The six major sake companies are Hakutsuru, Gekkeikan, Takara Holding (Syouchikubai), Ozeki, Nihonsakari, and Koyama Honke. Under the SMEs Basic Law of Japan, in the case of the manufacturing industry, a capital of 300 million yen or less or 300 employees or less is defined as a small and medium-sized enterprise, and 20 or fewer employees are micro businesses. According to this criterion, there are only 6 large companies in the sake industry, and the rest are all SMEs.

[ii] In 1886, Japan ended the Edo era of the feudal system with the generals (Shogun) at the top and became the Meiji period. Since then, Japan has become a modern nation.

[iii] "Daiginjo" is premium sake made with only the best part of the rice by removing the outer layers.

Daiginjo are made with rice that has been “polished” to remove at least the outer 50% of the original size of the grains. In the case of “Dassai”, there is a product called “MIGAKI 23” that has been polished to 23% of the rice polishing rate over 7 days and nights (168 hours). Currently, there is no sake with a ratio of polished rice exceeding it.

[iv] The top management of Asahi Shuzo pays attention to rice in paddy fields, which is the forward process of brewing sake, and digitalization. Specifically, for the stable supply of Yamada Nishiki, which is said to be difficult to grow-cultivation, they developed “Akisai”, a Cloud System linked with Fujitsu, and installed sensors in paddy fields. In addition, the timing of cutting and fertilizer is managed on the net. By doing this, they are conducting “visualization of data” on cultivation results and environment and aiming for stable procurement of Yamada Nishiki. (https://www.fujitsu.com/jp/vision/customerstories/asahi-shuzo/）

[v] The increasing use of smartphones means Internet access devices are no longer limited to fixed PCs. In particular, mobile ECs shopping by downloading dedicated apps is a new business trend.

[vi] From Inagora's interview with CEO Oh Eihyo (翁 永飆)　January 20, 2017

A Possible Research Framework for Developing Consumer Services Overseas: Examples from Food Chain Industry in India

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A Possible Research Framework for Developing Consumer Services Overseas: Examples from Food Chain Industry in India

Abstract

Service-related needs in emerging markets are steadily growing as urban middle-class people increase, and their lifestyle becomes westernized. Consumers are demanding more convenience, comfort, and enjoyment. On the other hand, service business firms in developed countries, in general, are struggling to understand emerging market consumers, especially before new market entry. Based on the investigations of service contact points with customers, this paper exemplifies a method to quickly understand the characteristics of the targeted consumers. The study focuses on customer satisfaction and loyalty as well as relationships among them. These elements are addressed as basic consumers' traits.

In this paper, eat-out experiences of Indian consumers at quick service restaurants and coffee shops are examined and compared to those of the Japanese counterparts. Findings from the study demonstrate differences in preferable marketing directions between these two countries, in addition to substantial business potential in India. Based on these findings, a simple and easy to interpret framework is proposed. From the theoretical point of view, it implies the need to reconsider the theory of "Expectation disconfirmation" in emerging markets. For businesses, the methodologies adopted in this study should be applicable to various areas of service businesses.

Keywords

Emerging market, Service business, Urban middle-class consumers, Customer satisfaction, Loyalty,

India, Japan, Food chain

INTRODUCTION

Today an increasing number of non-manufacturers in developed countries are conducting business in emerging markets. This reflects the increasing needs for various services mainly arisen by the growth in urban middle-class consumers. Their average income is rapidly increasing, as well as the population itself is growing. In addition, their value and lifestyle are gradually becoming westernized. They are seeking more convenience, comfort, and enjoyment than ever before.

However, a number of service businesses have been struggling in emerging markets. For example, the ordinary profit of Japanese non-manufacturers as a whole has declined for the last 10 years, in spite of an increase in the firms entering emerging economies (METI, 2018). This suggests that the rate of business failures has surged. Although the reasons for business failures are multifold, some consulting firms in charge of foreign market entry classify the main reasons into management factors and marketing factors. The former includes; soured relationship with local partners, failed communication between headquarters and local offices, failure in motivating local staff and their training, and so forth, the issues for which major consulting firms usually have preventive methodological packages as one consulting tool. The latter, marketing factors, are in many cases, caused by a lack of understanding of the local consumers. However, consultants usually do not have systematic approach, particularly before the market entry. They are likely to encourage business firms to make steady efforts to understand consumers both before and after entering new markets.

Service businesses, especially consumer services have a series of contact points with customers called "Service-encounter" where "Moments of truth" can be realized (Norman, 1986; Carlzon & Peters, 1987; Grönroos, 1990). Therefore, it is essential for service businesses to understand the cognitive and emotional characteristics of their targeted consumers. If the business area were manufacturing, the typical measure to understand targeted consumers before its market entry would be test marketing. Unfortunately, availability of test marketing is usually limited for service businesses. For instance, a coffee chain can test the taste of their

coffee in advance, but services provided by shop staff, ambience at the shop, and other attributes related to service processes will be highly contextual and hard to test beforehand.

Keeping these backgrounds in mind, this study attempts to develop a possible "simple" framework to understand consumers before market entry. This is not a substitute for a deep ethnographic research, which is usually conducted after market entry. Yet, it should help firms judge whether to enter the market, and if they do, help them formulate a general direction of marketing strategies. A simple framework should not incur much cost, time, or expertise. Above all, it should be easy to interpret the results.

For these purposes, the research we have attempted is the one in line with a specific business area that a concerning company is engaged with. We select quick service restaurant chains (QSR, hereafter) and coffee shop chains (coffee shop, hereafter) in India. We examine consumers' traits in line with these two services. The framework that we propose focuses on the basic concepts of marketing: 1) Customers' profile, 2) customer satisfaction (CS, hereafter), and 3) loyalty. As a benchmark to compare with, the research results of Japan is also presented. Our idea behind this framework is that such a simple research can reveal some traits of the targeted consumers which help business firms make an entry decision and consider effective marketing strategies.

LITERATURE REVIEW

Customer Satisfaction（CS）

This study defines CS as the overall evaluation throughout the process and result of a service experience, following a series of studies (Bitner & Hubbert, 1994; Mittal, Ross, & Baldasare, 1998; Nagashima, Nag, & Nagashima, 2015; Spreng, MacKenzie, & Olshavsky, 1996, etc.). In "Appendices," we present the questions used in our surveys.

Although there are numerous viewpoints about CS, we focus on three topics that this study is associated with; 1) Relationship between CS and loyalty, 2) Relationship between CS and element-level evaluations

(evaluation on each element), and 3) Roles of expectation(s) on CS.

With regard to the relationship between CS and loyalty, representative studies take into account "Threshold effect." This is characterized by the idea that certain ranges of satisfaction and dissatisfaction exist that do not cause a change in loyalty. In addition to the threshold effect, Oliva, Oliver, & MacMillan (1992) examines an asymmetric feature in line with "Negativity effect" where a negative CS has a greater (negative) impact on loyalty than the same magnitude of positive CS has in the positive direction. After this research, loyalty's threshold effect and nonlinear response to CS have been confirmed by a number of studies (Bennett & Rundle-Thiele, 2004; Bowen & Chen, 2001; Homburg, Koschate, & Hoyer, 2005; Helgesen, 2006, etc.).

As for the relationship between CS and element-level evaluations, Mittal, et al. (1998) and Nagashima, et al. (2015) analyze several services quantitatively and find asymmetric and non-linear nature of the relationship concerned. On the other hand, Stauss and Weinlich (1997) and Nagashima (2009) conduct qualitative analyses to identify the different trait of each phase as the service process proceeds. Stauss and Weinlich propose the idea of "Minimum-requirement factor" and "Value-enhancing factor," the notions which we apply to QSRs and coffee shops in this study.

Finally, expectations in the context of service evaluation are extensively studied. Among them are Grönroos (1984) and Parasuraman, Zeithaml, & Berry (1988). The former emphasizes the need to examine services from the perspectives of both processes and results. The latter proposes the representative framework of service evaluation, "SERVQUAL." Both studies consider that each element is evaluated in comparison with its expectation to influence or determine overall evaluation. This concept is widely known as "Expectancy-disconfirmation framework of satisfaction."

Considering these preceding studies, this study hypothesizes the positive relationship between CS and loyalty, but at the same time allows for asymmetric and/or non-linear relationships. With regard to the relationship between overall and element-level evaluations, we consider that some elements are more

influential than others. Then attempts are made to classify the elements into "Minimum-requirement factors" or "Value-enhancing factors" introduced by Stauss and Weinlich (1997). For the roll of expectation, this study empirically examines its effect on CS to test the validity of "Expectancy-disconfirmation framework."

Loyalty

Next, we look into several studies on loyalty. Recent studies, in general, conceptualize loyalty both from behavioral and attitudinal aspects. Dick & Basu (1994), for example, proposes the dimensions of relative attitude (psychological tendency or attachment, which represents the attitudinal aspect) and repeat purchase (patronage, which is the behavioral aspect), and classifies the situations into four categories: true loyalty, spurious loyalty, latent loyalty, and no loyalty as presented in Table 1.

Table 1 goes about here.

The behavioral aspect of loyalty can simply be measured by repeated purchase. On the other hand, the attitudinal aspect has several ways to operationalize the construct. Representative measures include 1) Intention to repurchase, 2) Feeling attached ("Attachment"), 3) Intention to recommend it to someone. Among them, Baron, Conway, & Warnaby (2010) regard "Attachment" as most important as attitudinal aspect of loyalty, since this psychological tendency does, in due course, leads to future usage and positive word of mouth (WOM). The attitudinal loyalty, emphasizing the feeling of attachment, is often called "Commitment."

With respect to the order of loyalty, Christopher, Payne, & Ballantyne (2002) propose the idea "Loyalty ladder," asserting that a customer can go up to "Client," "Supporter," "Advocate," and finally to "Partner." They explain that "Client" is a repeat purchaser, "Supporter" feels attached, and "Advocate" spreads out positive WOM. Therefore, according to Christopher et al., behavioral loyalty is still an undeveloped stage that should be developed into "Supporter" with attachment and then into "Advocate" with intention to recommend. In this regard, Reichheld (2003) proposes a simple measure of loyalty, called Net Promoter Score (NPS) based on the intention to recommend. In a survey where respondents express the intention to

recommend of a certain brand out of 11-point Likert scale (0-10), NPS is defined as the ratio of "Promoter (9-10)" subtracted by that of "Detractor (0-6)."

This study follows these preceding studies in that we investigate loyalty both from behavioral and attitudinal aspects, and that as attitudinal aspects, we consider 1) "Intention to revisit", 2) "Attachment," and 3) "Intention to recommend."

METHODS

Proposing a Framework

This study proposes the following items A) - C) to quickly understand the targeted consumers' traits before new market entry. As stated in "Introduction," while aiming to understand consumers in line with the specific service (QSRs and coffee shops), these items are set so that both analysis and interpretation of the results are made as simple as possible. We will compare the results of these two services, as well as consumers of the two countries. This comparison between two similar but different services provides us with some meaningful perspectives in considering strategies.

A) Visitors' profile of food chain stores

a. Basic attributes of visitors

b. Purpose of visit

B) CS with food chain stores

a. Distribution of CS level

b. Relationship between CS and elements

c. Influence of beforehand expectations on CS

C) Loyalty to food chain stores

a. Distribution of loyalty level

b. Relationship between CS and loyalty

Item A) is about "What kind of people are the customers?" and "Under what circumstances and with whom do they use the service (visit the store)?" These are visible traits rather than ingrained people's values. There are those who emphasize "Culture" or people's values analyzed by Hofstede and others (De Mooij & Hofstede, 2002; Hofstede, 1983, 1984; Hofstede & Hofstede, 2001; Hofstede, Hofstede, & Minkov, 2010). Such values as "Allowance for power distance," "Collectivism or individualism," "Masculine or feminine," "Uncertainty avoidance," and two more factors are considered "Culture" that are essential to understand peoples' traits. However, the situation we consider is a quick look at the consumers' traits in line with specific services before foreign market entry. For this purpose, we limit the research to visible items that can be handled easily by business practitioners. It is one of the purposes of this study to show that a standardized simple survey works as a feasibility study before new market entry.

Item B) and C) deal with satisfaction and loyalty analyses that employ several ideas of preceding studies stated in the previous section.

Survey and Data

The data were collected by questionnaire surveys. The outline of the surveys is summarized in Table 2. First, respondents went forward to the main part of the survey, by expressing in the pre-survey that they had experienced the service in the previous three months, remembered their experiences well, and were willing to answer about their experiences.

Key questions are shown in the Appendices. Respondents of the survey in India live in the urban area of Delhi, Mumbai, or Chennai, the sample numbers of which are 255, 265, and 268 respectively. Out of 788 respondents in total, 454 answered about their experiences at QSRs, and 334 about those at coffee shops. 135 respondents answered about KFC, 131 about McDonald's, 223, about Café Coffee Day, and 40 about Costa Coffee. As for the survey in Japan, respondents are from Tokyo, Osaka, or Nagoya, the sample numbers of which are 297, 228, and 226 respectively. Since in Japan food chains are categorized into "Fast-food chains"

and “Family restaurant chains,” these names are used in the questionnaire. As a result, 250 answered about fast-food chains, 250 about family restaurants, and 251 about coffee shops. The first two categories are considered equivalent to QSRs in India. 183 respondents answered about McDonald’s, 108 about GUSTO (Skylark group), 130 about Starbucks Coffee, and 57 about Doutor Coffee.

Table 2 goes about here.

RESULTS

Item A: Visitors’ Profile of Food Chain Stores

“Profile” here is about what kind of people visit food chain stores for what purposes. The conspicuous fact revealed is the difference in income distribution between QSR visitors and coffee shop visitors. As indicated in Figure 1, visitors of coffee shops in India tend to fall into higher income brackets than those of QSRs. Such a difference is not observed for consumers in Japan. This also indicates that comparing similar services, as well as comparing multiple countries, are often useful in understanding consumers and services of the host country. This is because one service works as a benchmark to the other.

Other observations for India’s consumers include that the female visitor ratio is higher for coffee shops than for QSRs (29.5% for QSRs and 41.1% for coffee shops). Yet, we should be cautious in that both shops are visited by group, and therefore, the respondents and the visitors do not accurately coincide with each other.

Figure 1 goes about here.

With regard to when and why to visit, Figure 2 indicates the visiting time, and Figure 3 shows the purpose of visit. From Figure 2, we know nearly 60% of QSR visitors in India use them during dinner time. In Japan, on the other hand, time zones are spread out to breakfast, lunch, coffee break, and dinner time, with lunch time attracting the most visitors. Regarding coffee shops, the difference between both countries is not so large, except that breakfast time has some importance in Japan.

By checking the above distributions by frequency of visits, we find that heavy users[(1)] in India tend to

concentrate on the busiest time zone in both services, namely dinner time for QSR and afternoon coffee break for coffee shops. In Japan, the differences by frequency are not statistically significant (even at a 10% level) for both services.

Figure 3 shows the purposes directly. It is understandable that consumers use these services for several reasons, such as eating, drinking, talking, relaxing, reading, working, and so on. Yet, from the marketing point of view, attention should be paid to whether visitors come alone or with somebody else. Regarding users of both services in India, "High frequent visitors" (heavy users) are more likely to come with their friends or colleagues for the purposes of both eating and talking. This shows a remarkable contrast to the Japanese counterparts in that Japanese heavy users tend to visit alone in both services.

Figure 2 and 3 go about here.

Item B: Customer Satisfaction (CS) with Food Chain Stores

Distribution.

Figure 4 shows simple distributions of CS for both services. CS is defined as overall evaluation throughout the experience, including such elements as taste of food/drink, cost felt, waiting time, service delivery by the staff, ambience at the shop, etc., and asked in the questionnaire accordingly (Appendices, Q6 in "Key Questions"). The scale is from zero (Poor) to ten (Excellent), with five the neutral point. We acknowledge at a glance that consumers in India tend to evaluate shops more favorably than those in Japan. The difference in distribution is greater for evaluations on QSRs than on coffee shops. In addition, Indian consumers tend to evaluate QSRs higher than coffee shops, while the reverse is observed for the Japanese counterparts.

Other observation about CS is its differences in rating, depending on the income level. In India, the wealthier the customers are, the severer their evaluations become, while in Japan, wealthier people tend to rate their experiences more favorably.

Figure 4 goes about here.

Elements of customer satisfaction.

Next, the elements that have influence on CS are discussed. Figure 5 indicates relations between CS and partial evaluations (evaluations on elements). In this context, these correlations can be considered the magnitude of influences of elements on CS, although we should be cautious in that correlation does not necessarily mean causation.

Regarding QSR, in India "Reasonability of pricing" and "Location" are important in the sense that these elements are more strongly correlated with CS, while in Japan, "Customer service by shop staff," "Taste of food/drink," and "Cleanliness of the shop" are more important. We also observe that in India the difference among elements is smaller, and more elements show smaller correlation with CS, compared to Japan. Considering the fact that consumers in India tend to show higher CS, the mechanism of improving CS seems to be more complex. As for coffee shops, the differences between the two countries are not so large as with QSRs, except that "Location" and price factors have more influence on CS in India than in Japan.

Figure 5 goes about here.

We then consider the elements through specific reference to asymmetric effects on CS: "Minimum-requirement factors" or "Value-enhancing factors" as proposed by Stauss and Weinlich (1977). As the image is depicted in Figure 6, the former causes to deteriorate CS if it falls short of the neutral point, and the latter tends to lead to improving CS if it exceeds neutral.

Although the concept is originally non-linear functions, the asymmetric nature can be captured by using correlations. We divide elements into the two categories by measuring its correlation coefficients with CS, separately when the partial evaluation is lower than neutral and when it is higher than neutral. If the element indicates stronger correlation with CS when it is lower than neutral, it can be considered a "Minimum-requirement factor." If it does when it is higher than neutral, it is a "Value-enhancing factor."

As shown in Table 3, where QSR and coffee shop data are combined, for consumers in India, all

elements show the features of "Value-enhancing factors." Only "Smooth bill payment" indicates both features of "Minimum-requirement" and "Value-enhancing factors." This means that this element has close to a linear relationship with CS throughout the evaluation levels. On the other hand, for the consumers in Japan, "Minimum-requirement factors" are "Customer service by shop staff," "Waiting time between ordering and serving," "Taste of food/drink," and "Reasonability of pricing." Conversely, "Value-enhancing factors" are "Cleanliness of the shop," "Ambience such as decoration, BGM," "Comfort of the seat and table," "Smoking and non-smoking arrangement," "Smooth bill payment," and "Courtesy at bill payment." In addition, "Customer service by shop staff," "Cleanliness of the shop," and "Reasonability of pricing" have both features, indicating close to linear relationships with CS.

Figure 6 and Table 3 go about here.

Expectations on customer satisfaction.

In order to examine how consumers' beforehand expectation influence on CS, we asked the respondents about 16 elements whether they felt better than expected, about the same, worse than expected, or had no expectation beforehand. For each sample, we count the number of elements which were felt better than expected, and the number felt worse than expected. Also, we subtract the latter from the former number. For these three synthesized variables, we take correlation with CS. This procedure enables us to judge the conformity to "Expectancy-disconfirmation framework" (Grönroos, 1984; Parasuraman, et al., 1988). Namely, if the number of elements felt better than expected is positively correlated with CS, if the number of elements felt worse than expected is negatively correlated with CS, and if the subtracted number is positively correlated with CS, it conforms to the framework.

Table 4 indicates contrasted results of the two countries. While "Expectancy-disconfirmation framework" perfectly applies to the Japanese consumers regardless of the frequency of visits, it does not apply at all to Indian consumers. In many cases, even the signs of correlation coefficients are opposite. In Japan, it has become a business commonsense that a good service is one that exceeds customers' expectation,

and that high expectations should be controlled. However, this does not hold for food chains in India.

Table 4 goes about here.

Item C: Loyalty to Food Chain Stores

Distribution of loyalty from behavioral and attitudinal aspects.

Table 5 is the form proposed by Dick & Basu (1994), showing loyalty from behavioral and attitudinal aspects. Specifically, this shows the relationship between frequency of visit and attachment felt. From the matrices, we understand the similar characteristics of the two services and a sharp contrast between consumers of the two countries.

Out of those who indicate behavioral loyalty, more than two-thirds of consumers in India feel attached, while most Japanese counterparts are classified as "Spurious loyalty" without attachment. In addition, in India, about 20% respondents are showing "Latent loyalty," while in Japan this ratio is less than 3%. Since "Latent loyalty" has a potential to grow into "True loyalty" if constraints, such as budget or time, are mitigated, a huge potential is predicted for India's market. In order to practically grasp overall distribution of loyalty, using simple distribution on each aspect (frequency of visits, intention to revisit, attachment, and intention to recommend) would also be useful. Although lengthy documenting is avoided here, distributions of loyalty reveals that it is easier to obtain loyalty in India than in Japan, particularly on the aspect of attachment and intention to recommend of both services.

Table 5 goes about here.

Relationship between customer satisfaction and loyalty.

With respect to the relationship between CS and loyalty, we first illustrate it by Figure 7. Here, the CS levels are divided into four ranks, and according to this rank, the ratios of loyalty shown by customers are depicted by bar charts.

Figure 7 illustrates the similarity and difference of consumers of the two countries. Regarding the similarity, while the relation between CS and behavioral loyalty is ambiguous, that between CS and attitudinal loyalty is clear. Consumers of both countries tend to show more attitudinal loyalty as the CS level improves. Regarding the difference, attachment and intention to recommend are easier to obtain in India, even when CS levels are not very high. In Japan, on the other hand, they are difficult to obtain even if CS is at the highest level. However, they surely tend to be more loyal in terms of intention to revisit. The relationship of this aspect in Japan is clearer than in India.

Figure 7 goes about here.

////////////// KOKOMADE

Next, we focus on "Intention to recommend," the aspect that Reichheld (2003) considers "One number you need to grow." As shown in Figure 7, the ratios of intention to recommend shown are different between both countries, and worth examining more closely. "Ordered logit model" enables the calculation of probabilities as to whether to become a promoter or a detractor, depending on the CS level." In accordance with Net Promoter Score (NPS) proposed by Reichheld, the dependent variable, "Intention to recommend," is a three-level discrete variable, where 1=Detractor, 2=Passively Satisfied, and 3=Promoter. "Promoter" corresponds to the original choices "6=Already recommended" or "5= Definitely." "Passively satisfied" is "4=OK to recommend," and other choices (1=Never, 2=Not so, and 3=Neither yes nor no) are categorized as "Detractor." The independent variables are the CS level and "Frequency of visit."

The estimation results are shown in Table 6. The estimators are statistically significant at 5% significance level, except for "Frequency of visit" for consumers in Japan. This implies that a high CS level causes to raise the intention to recommend in both countries. Yet, a high frequency does not necessarily lead to intention to recommend in Japan, while in India it is likely to do so.

The magnitude of parameter estimators of logit models, however, should be interpreted as marginal effects. In this case, independent variables are all discrete. This enables to calculate the probabilities of

"Promoter," "Passively satisfied" and "Detractor," according to each discrete status of the independent variables.

Figure 8 shows probabilities according to each status. Observations include that customers in India are more likely to become promoters than those in Japan, and the difference is greater for high frequent visitors. In Japan, high frequency hardly contributes to active recommendation, as expected by statistical insignificance of β_2. Figure 8 shows the results of coffee shops. The case of QSRs are similar, although they are not shown to save pages.

Table 6 and Figure 8 go about here.

DISCUSSION

Theoretical Implications

Keeping the findings of this study in mind, academic implications are considered with some issues left for future studies. While a practical framework to understand consumers before market entry has been sought, this study employs academic frameworks, such as "Dick & Basu matrix," "Minimum-requirement and Value-enhancing factors," "Expectancy-disconfirmation framework," and "Loyalty ladder." Among them, consumers in India do not seem to follow "Expectancy-disconfirmation framework" or "Loyalty ladder." These ideas have been developed based on the consumers of developed countries, and are often regarded as basic theories applied to market analysis. However, they should be reconsidered as we face the consumers in developing countries. Looking in from the opposite side, there will be some room to further develop new theories and ideas for emerging market consumers.

More specifically, "Expectancy-disconfirmation framework," perfectly applies to consumers in Japan, but not to those in India. In Japan, it is often said that a service provider needs to control customers' expectations so as not to be excessive, since a high expectation often leads to a letdown, resulting in an overall low evaluation. However, in India, a high expectation itself appears to cause a high evaluation. This may imply the effectiveness of intriguing advertisement by the media to potential customers. However, it is

left for future research whether this is the case for other services in India, whether this applies to other emerging markets, or what kind of information causes to raise consumers' expectations.

Regarding "Loyalty ladder," this idea proposes the hierarchical order of loyalty, i.e. from "Customer," "Client (Heavy user)," "Supporter (Feeling attached)" to "Advocate (Promoter)." Yet, consumers in India do not seem to follow this order. This is because in India, 1) "Attachment" and "Intention to recommend" are easier to obtain than "Intention to revisit," and 2) CS is more closely associated with "Attachment" and "Intention to recommend" than with "Intention to revisit" or "Frequent visits." Dick & Basu matrix depicted in Table 5 is also consistent with this implication. Figure 9 is an illustration of this situation. In India, "Client" appears to be a satisfactory condition for "Supporter" and "Advocate," implying that the order should be from "Customer" to "Supporter and Advocate," and then to "Client." In Japan, on the other hand, the order of "Loyalty ladder" seems to hold, although the path from "Client" to "Supporter" and "Advocate" is very narrow. Whether this is applicable generally to different services and/or different emerging economies are topics for future study.

Furthermore, as implied by Figure 7 and 8, a notable implication regarding the asymmetric relationship between CS and loyalty is that the threshold is narrower in India than in Japan, both on the positive and negative sides. However, it is left for future research to explore and estimate non-linear functions for these relationships.

Figure 9 goes about here.

Business Implications

The framework of this study provides business firms with two different types of information. The first one is the information that helps a firm judge whether to enter the market from the viewpoints of consumers' traits. Japan's business firms, in general, regard developing businesses in India as difficult. Therefore, some companies do not include India as a candidate of destination. Consequently, the number of Japan's firms doing business in India is dwarfed by that in China or Southeast Asian countries. However, so long as food

chains are concerned, consumers in India are quite straightforward, and CS and loyalty are easy to obtain. The framework of this study can also be applied to comparisons among candidate cities, if necessary.

The second information is about helping design marketing strategies after an entry decision. For instance, the elements that have most influence on CS are location and reasonability of pricing. Also, smooth bill payment is important from both minimum-requirement and value-enhancing perspectives. These facts are not revealed by ordinary test marketing, such as food tasting events. In addition, it will be suggestive as a marketing strategy that controlling consumers' expectations is not necessary, at least, compared to the Japanese market. Furthermore, it is important to note that CS does not lead directly to revisiting the shop personally, but not very high CS can generate fans and positive word-of-mouth. More basic facts are also informative. For instance, the fact that Indian customers of QSR are concentrated on their evening meal will provide a hint for business hours and staff allocation by time.

One of the aims of this framework is seeking simplicity and affordability. From the simplicity point of view, the questionnaire is mostly based on multiple choices, and therefore is easy to summarize as means and/or distributions. Because of this simple quantitative nature, the results are easy to interpret requiring no special skills and experience compared to a qualitative research, such as business ethnography.

Regarding affordability, the time span of this research is 2 months, but if the research format is pre-decided, it would take only 2 weeks. The monetary cost is less than 10 thousand dollars, everything included. Often visitations by corporate executives are conducted several times before market entry. Considering this cost, one visitation might be replaced by a quantitative research.

CONCLUSION

It needs a thorough examination to clarify whether the framework we propose is applicable to other areas of services. However, so long as the food chain business is concerned, the framework of this study reveals useful facts in terms of both an entry decision and forming a marketing strategy.

One of the ultimate goals of international service marketing should be building relations with consumers in the market concerned. In this regard, the first step would be to understand the targeted consumers before market entry. This study explores a simple and affordable methodology for that. The authors hope that this study contributes to introducing a methodology, and will be of help to business firms.

NOTES

(1) Heavy users here are those who have frequented the specific store 6 times or more in the previous 12 months. This definition of "High frequent visitors" is consistent throughout the text (in Table 3-6, Figure 7, and 8).

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FIGURES AND TABLES

Table 1 Loyalty from behavioral and attitudinal aspects.

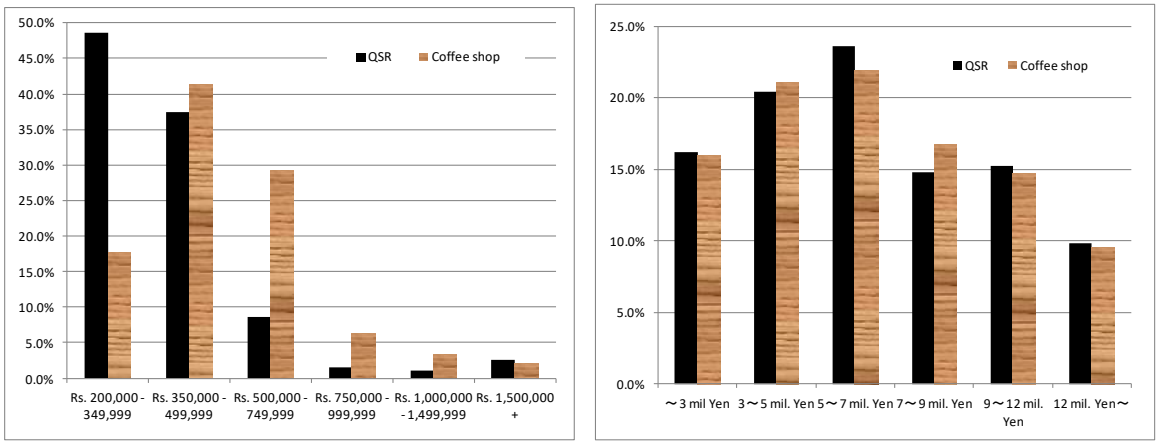
		Relative Attitude: High	Relative Attitude: Low
Repeated Purchase	High	True loyalty	Spurious loyalty
	Low	Latent loyalty	No loyalty

Source: Dick & Basu (1994)

Table 2 Questionnaire surveys conducted in India and Japan

	India	Japan
Effective samples	n=788	n=751
Respondents : age	From 20 to 69 years old	
: area	Residents of Delhi, Mumbai, and Chennai	Residents of Tokyo, Osaka, and Nagoya
: income bracket, social economic class	Household annual income of 200,000 INR or above and also classified as A or B in terms of SEC (Social Economic Class)	No restrictions (Household annual income of 3 to 10 million yen acount for 85% of the effective samples)
: experience	Have eat-out experiences at a casual restaurant or a coffee shop within the last 3 months, which he/she remembers well and are willing to be asked about	
Period	From February to March, 2015	From October to November, 2015
Method	On-line survey answered by monitors managed by InfoBridge Marketing & Promotions Co.,Ltd.	On-line survey answered by monitors managed by MS & Consulting
Questions	* Demographic information which includes gender, age, residential area (city), and household annual income * Name of restaurant/coffee shop, the time and purpose of visit * Satisfaction level (overall, and on each item, such as taste of food/drink, price, waiting time, cleanliness of the shop, ambience, service delivery by shop staffs, courtesy, etc.) * Expectations beforehand and comparison with the experiences on the site * Loyalty toward the shop (frequency of visit, intention to revisit, attachment, intention to recommend)	

<India> **<Japan>**



Notes:1. Horizontal axes denote brackets of annual household incomes, and the vertical axis the percentage of respondents falls into each bracket.

2. Chi-square tests to check the difference in income distributions between two services result in p_value=0.000 (statistically significant at 1% level) for India, and p_value=0.983 for Japan (statistically insignificant at any level).

Figure 1 Visitors of Both Types of Shops by Household Annual Income

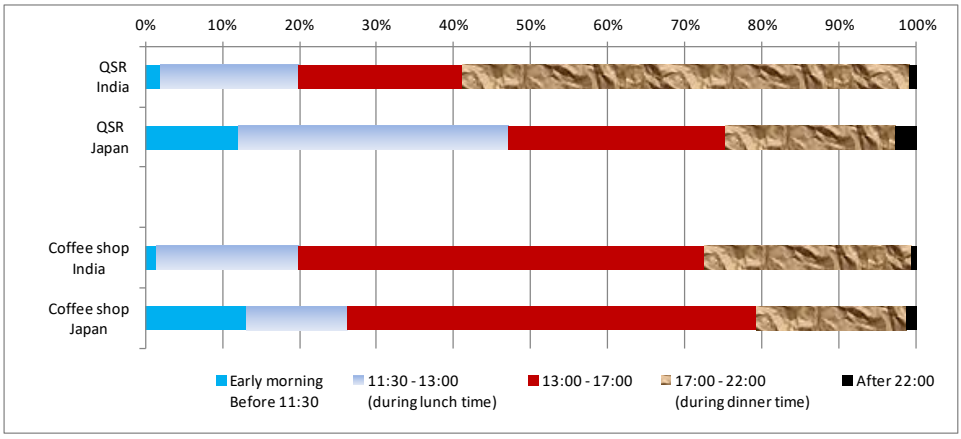


Figure 2 Time of Visits

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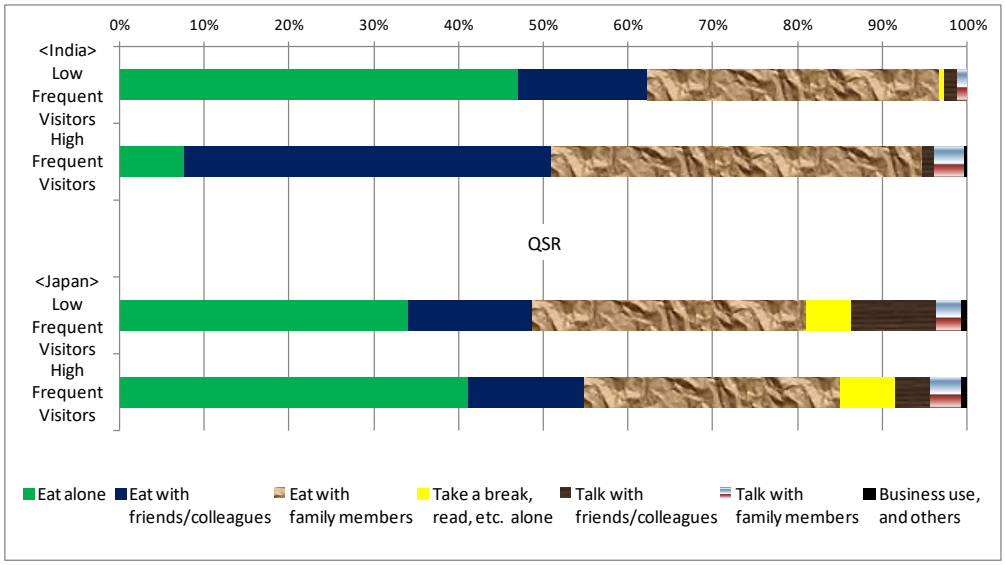

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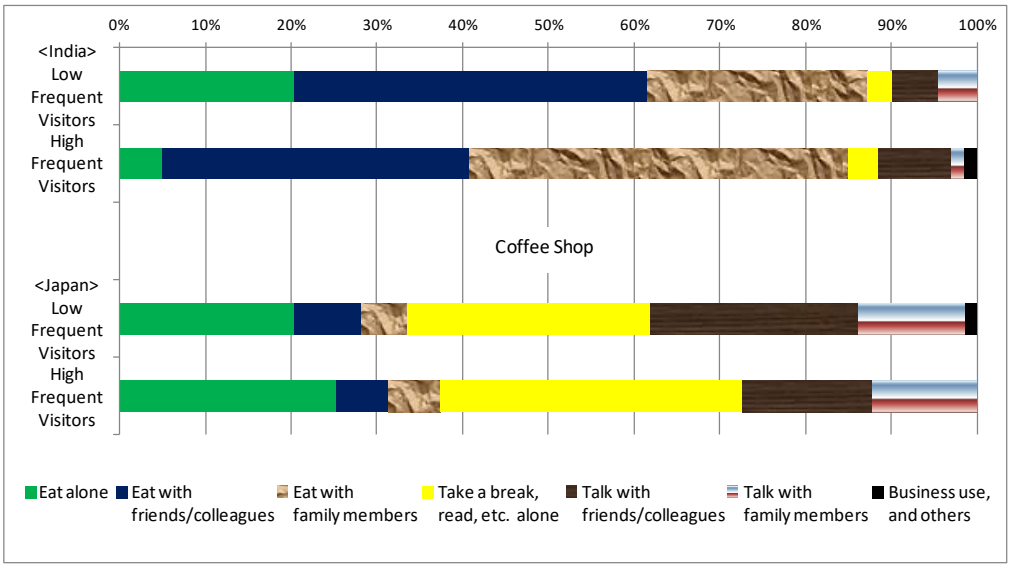


Figure 3 Comparison of Purpose of Visit by Frequency

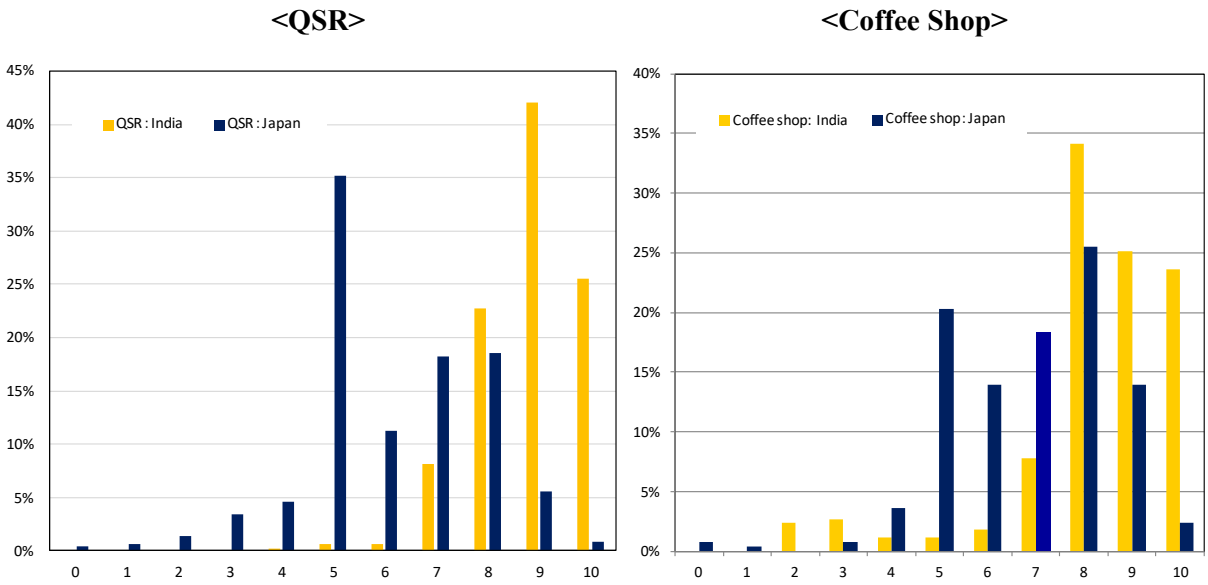
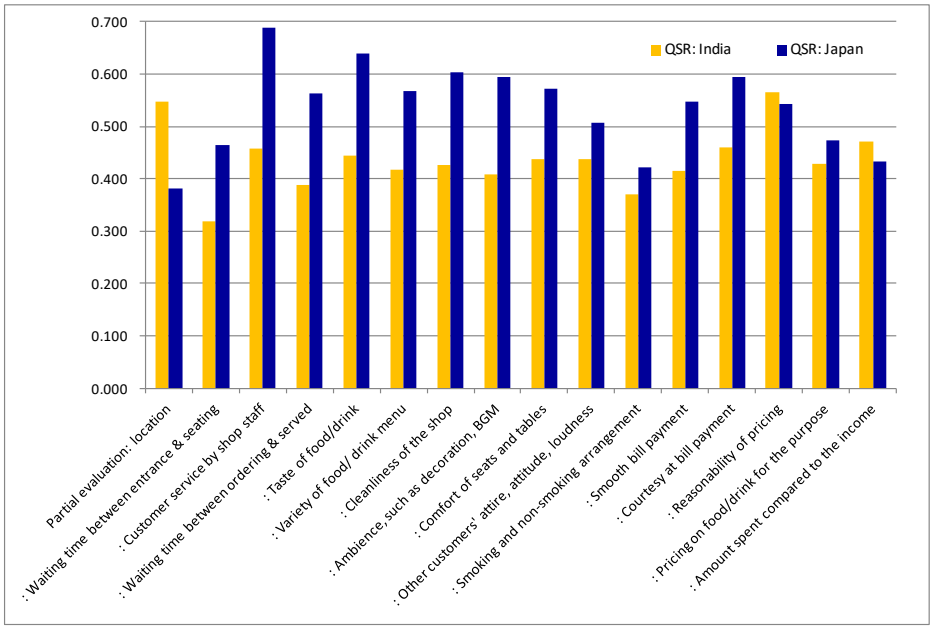


Figure 4 Distribution of CS

<QSR>



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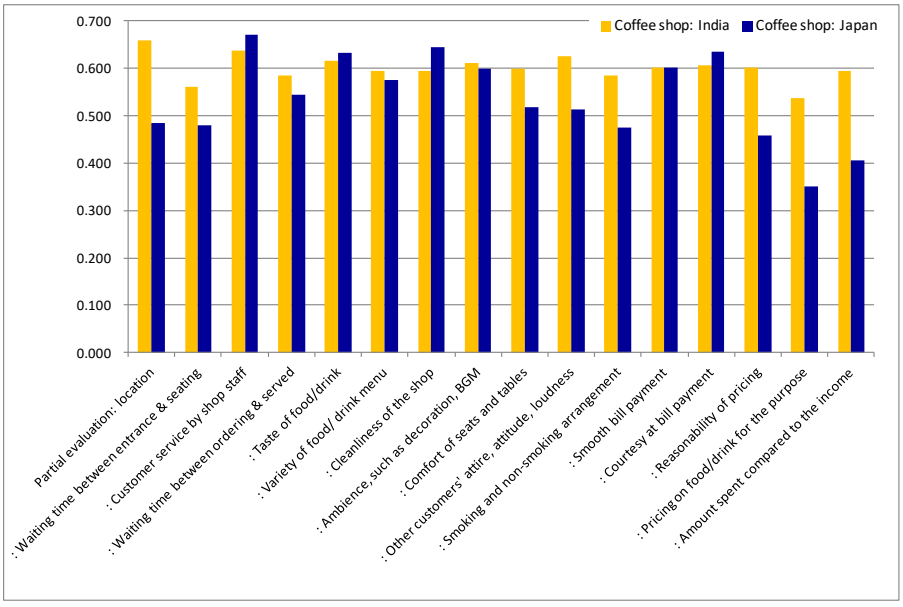


Note: Vertical axes of both figures denote Pearson's correlation coefficient between CS and evaluations on elements (partial evaluations).

Figure 5 Correlation between Elements and Overall CS

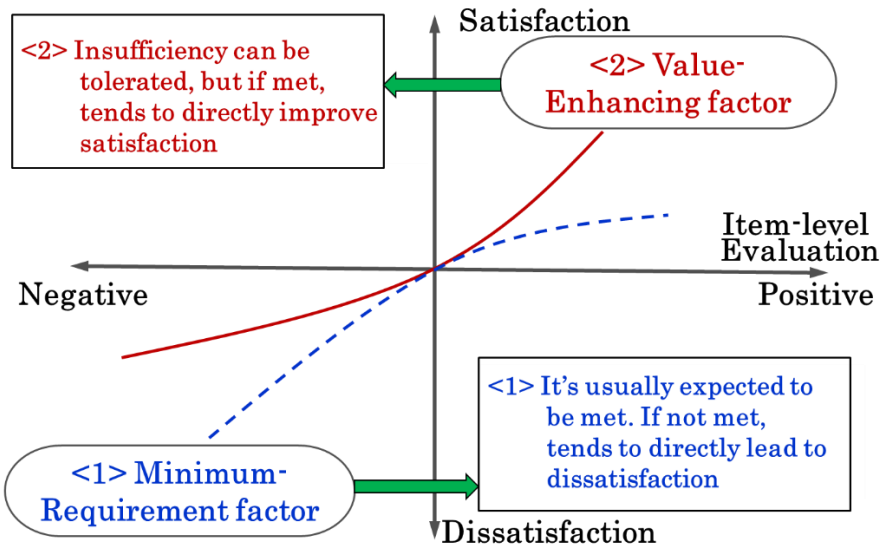


Figure 6 "Minimum-requirement" and "Value-enhancing" factors

Table 3 "Minimum-requirement factor" or "Value-enhancing factor"

		India		Japan	
	Items Evaluation ⇒⇒⇒⇒	Low (5 or below)	High (6 or above)	Low (5 or below)	High (6 or above)
1	Location	*	0.449	*	*
2	Waiting time between entrance and seating	*	0.441	*	*
3	Customer service by shop staff	*	0.439	0.332	0.311
4	Waiting time between ordering and served	*	0.403	0.284	*
5	Taste of food/drink	*	0.500	0.210	*
6	Variety of food/drink menu	*	0.465	*	*
7	Cleanliness of the shop	*	0.473	0.198	0.242
8	Ambience, such as decoration, BGM	*	0.464	*	0.255
9	Comfort of seats and tables	*	0.448	*	0.275
10	Other customers' attire, attitude, loudness	*	0.472	*	*
11	Smoking and non smoking arrangement	*	0.444	*	0.164
12	Smooth bill payment	0.592	0.480	*	0.149
13	Courtesy at bill payment	*	0.519	*	0.304
14	Reasonability of pricing	*	0.501	0.251	0.149
15	Pricing on food/drink for the purpose	*	0.470	*	0.316
16	Amount apent compared to the income	*	0.502	*	*

NOTE. 1. denotes insignificance of the correlation coefficient at the 5% significance level.

Table 4 Empirical Results about "Expectancy disconfirmation Model"

-- Correlation Coefficient with CS --

		<India>		<Japan>	
		Less tha 6 times	6 times or more	Less tha 6 times	6 times or more
QSR	(1) # of elements above expectation			0.317**	0.209**
	(2) # of elements below expectation	0.388**	0.182**	-0.450**	-0.283**
	(3) # of elements (1) - (2)	-0.248**		0.493**	0.294**
Coffee shop	(1) # of elements above expectation			0.234**	0.254**
	(2) # of elements below expectation	0.175*		-0.410**	-0.442**
	(3) # of elements (1) - (2)	-0.173*		0.389**	0.381**
Total	(1) # of elements above expectation		0.122**	0.287**	0.234**
	(2) # of elements below expectation	0.244**	0.114*	-0.439	-0.349**
	(3) # of elements (1) - (2)	-0.167**		0.459**	0.337**

Notes:

1. * denotes that the correlation is statistically significant at the 5% significance level (both-sided). ** same at the 1% level.
2. Shaded cells indicate that the result here contradicts "Expectancy disconfirmation model." Blank cells indicate no statistically significant correlation for the coefficients obtained.

Table 5 Loyalty in the form of Dick & Basu matrix

<QSR>

		Attitude (Attachment)		
		High	Low	Total
Behavior (Repeated Purchse)	High	India 44.5% Japan 5.3%	India 13.4% Japan 30.2%	57.9% 35.6%
	Low	India 23.3% Japan 2.7%	India 18.7% Japan 61.8%	42.1% 64.4%
	Total	India 57.8% Japan 8.0%	India 32.2% Japan 92.0%	100% 100%

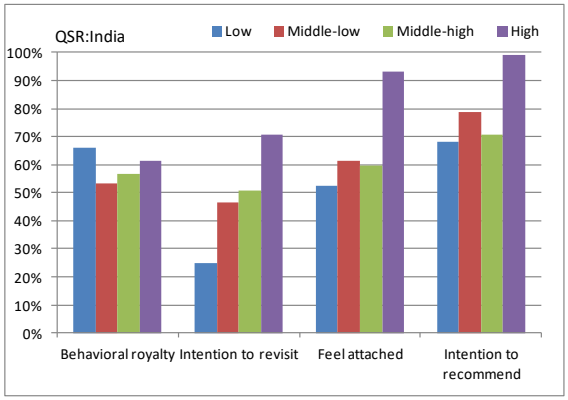
<Coffee Shop>

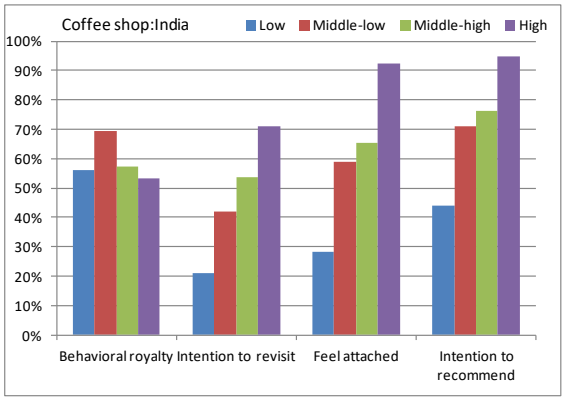
		Attitude (Attachment)		
		High	Low	Total
Behavior (Repeated Purchse)	High	India 43.7% Japan 7.2%	India 16.5% Japan 32.3%	60.2% 39.4%
	Low	India 19.5% Japan 2.8%	India 20.4% Japan 57.8%	39.8% 60.6%
	Total	India 63.2% Japan 10.0%	India 36.8% Japan 90.0%	100% 100%

Note:

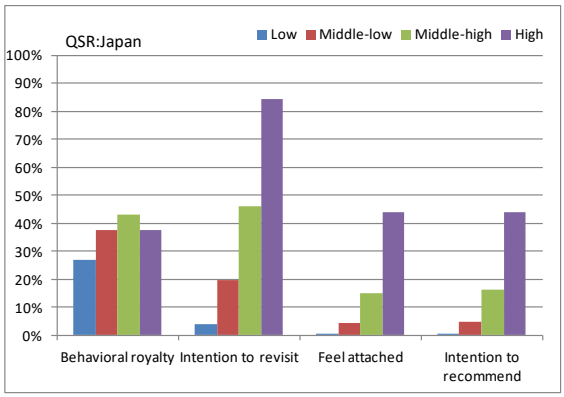
Behavior: Yes=Visited the same shop six times or more in the last 12 months.
(Repeated visits) No=Visited it up to five times in the same period
Attitude: Yes=Feel attached definitely (Five out of five point scale).
(Attachment) No=One-Four out of five point scale ("Somewhat yes" is classified as "No").

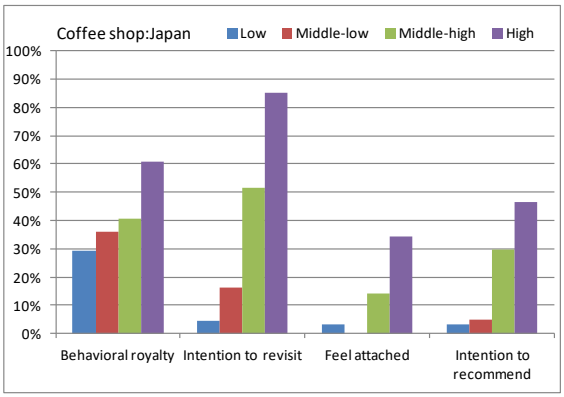
India **<QSR>** **<Coffee Shop>**





Japan **<QSR>** **<Coffee Shop>**





Notes: 1. Cs levels are divided into four ranks according to the sample's 25, 50, and 75 percentiles.

2. Vertical axes denote the ratios of loyalty shown.
   Behavioral loyalty: Visited the same shop 6 times or more during the previous year
   Intention to revisit: "Definitely yes," the highest choice of 5-point Likert scale
   Feel attached: "Definitely yes," the highest choice of 5-point Likert scale
   Intention to recommend: "Definitely yes," the highest choice of 5-point Likert scale, in addition to "Already recommended"

3. Difference in loyalty for each aspect is tested, where the null hypothesis is "the loyalty levels are same regardless of CS level." The test statistics, p_values resulted from the F-tests are as follows.

	<India>				<Japan>			
	Behavioral royalty	Intention to revisit	Attachment	Intention to recommend	Behavioral royalty	Intention to revisit	Attachment	Intention to recommend
QSR	0.446	0.000	0.000	0.000	0.021	0.000	0.000	0.000
Coffee shop	0.099	0.000	0.000	0.000	0.010	0.000	0.000	0.000

Figure 7 Differences in Loyalty Shown according to the Differences in CS Levels

Table 6 Estimation Result of Intention to Recommend by Ordered Logit Model

<QSR>

	<India>		<Japan>	
	Estimator	p_value	Estimator	p_value
α_1	-0.27	0.695	3.01	0.000
α_2	3.09	0.000	4.83	0.000
β_1	0.65	0.000	0.83	0.000
β_2	1.86	0.000	0.43	0.189
Cox & Snell		0.149		0.116
Nagelkerke		0.223		0.145
McFadden		0.146		0.076

<Coffee Shop>

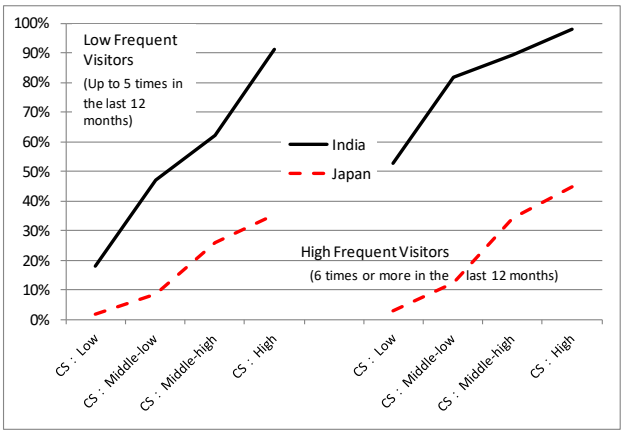
	<India>		<Japan>	
	Estimator	p_value	Estimator	p_value
α_1	2.68	0.000	3.02	0.001
α_2	4.25	0.000	4.82	0.000
β_1	1.13	0.000	0.95	0.000
β_2	1.66	0.000	0.77	0.079
Cox & Snell		0.235		0.209
Nagelkerke		0.302		0.236
McFadden		0.178		0.109

Note: The estimated model is as follows.

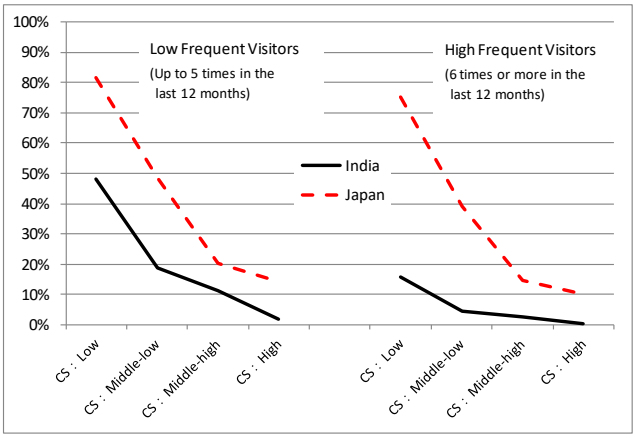
$Pr(kj \leqq j)=\exp(\alpha_j-\beta_1X_1-\beta_2X_2)/[1-\exp(\alpha_j-\beta_1X_1-\beta_2X_2)]$, j=1,2, where αj : Thresholds,

X1 : CS (4 levels), and X_2 : Frequency of visit with respect to a specific shop (High or Low)

<Probability of Becoming a Promoter: Coffee Shop>



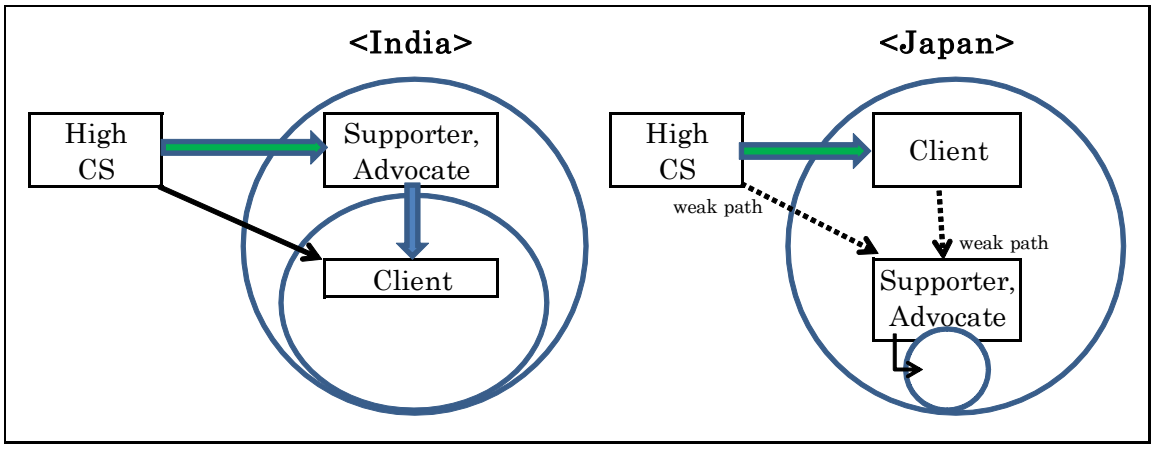
<Probability of Becoming a Detractor: Coffee Shop >



Note. Each probability is calculated based on the estimators shown in Table 8. Since dependent variables of ordered logit models represent cumulative probabilities, the probability of belonging to each bracket is calculated as $Pr(Detractor)=Pr(k \leqq 1)$, $Pr(Promoter)= Pr(k>2)=1-Pr(k \leqq 2)$.

Figure 8 Estimated Probabilities of Promoter and Detractor

-- Calculated by Parameters of Estimation Results: Case of Coffee Shop --



Source: Authors' construction

Figure 9 Possible Order of Loyalty

Appendices

<Key Questions in the Survey>

Please answer following questions about your experience of _____ (show the name and shop location already answered in the pre-survey)

Q1. During what time period did you visit the shop? (From 5 choices)

Q2. What was the purpose of visiting the shop? (From 7 choices)

Q3. How often do you visit the shop at that location? (From 7 choices)

Q6. Looking back your visit at _____ (show the name and shop location), how did you score your experience in that shop? What was your overall evaluation including taste of food/drink, variety of food/drink options, price, in-store environment, atmosphere, and customer service? The lowest score is 0 (felt angry) and the highest is 10 (impressed). The middle score of 5 is for "ordinary", neither good nor bad. Please provide your overall rating in the below scale. (Check one of below.)

	Angrily bad	・・・				Neither good nor bad	・・・				Impressed
Overall evaluation	0	1	2	3	4	5	6	7	8	9	10

Q9. Do you want to visit that shop again? (From 5 choices)

Q10. Do you feel attached to that shop? (From 5 choices)

Q11. Will you recommend that shop to your close friend? (From 6 choices)

Q13. Please evaluate your experiences of eating/drinking in that shop for each of the following factors on a scale of 0 (poor) to 10 (excellent) (From 0-10 as in Q6)

S1. Shop location

S2. Waiting time from shop entrance to seating

S3. Customer services by the shop staff

S4. Waiting time between seating/ordering and food/drink served

S6. Variety of food/drink menu

S7. Cleanliness of the shop

S8. Atmosphere of the shop (arrangement, decoration, BGM, etc.)

S9. Comfort of the seat and table

S10. Favorability of other customers (attire, attitude, loudness)

S11. Smoking and non-smoking arrangement (including dissatisfaction with smoking restrictions)

S12. Smooth bill payment

S13. Courtesy at bill payment (greeting, separate billing for a group member, etc.)

S14. Reasonability of pricing for the food/drink served

S15. Pricing on food/drink for your purpose (amount spent for lunch, etc.)

S16. Amount spent on food/drink (compared to your income or budget, etc.)

Q16. How do you evaluate each of the following factors compared to your beforehand expectation?
Or did you not expect from the beginning? Please choose one from 1-4 and tick appropriately.
Please put only one check mark for each factor, S1- S15. One for each line: total of 15 marks.
(Choices are from "1. Worse than expected," "2. About the same as expected," "3. Better than expected," and "4. Had no expectation beforehand.)

S1. Shop location
S2. Waiting time from shop entrance to seating
S3. Customer services by the shop staff
S4. Waiting time between seating/ordering and food/drink served
S5. Taste of food/drink served
S6. Variety of food/drink menu
S7. Cleanliness of the shop
S8. Atmosphere of the shop (arrangement, decoration, BGM, etc.)
S9. Comfort of the seat and table
S10. Favorability of other customers (attire, attitude, loudness)
S11. Smoking and non-smoking arrangement
S12. Smooth bill payment
S13. Courtesy at bill payment (greeting, separate billing for a group member, etc.)
S14. Amount spent on food/drink (For instance, in the case you had spent more than expected, please mark "worse than expected". If spending was less than expected, then mark "better than expected".)
S15. Overall experience, including all factors

<Descriptive Statistics on Customer Satisfaction and Partial Evaluations>

	India: n=454		Japan: n=500	
<QSR>	**Mean**	**Standard Deviation**	**Mean**	**Standard Deviation**
Overall CS	**8.81**	**0.997**	**6.10**	**1.707**
Partial evaluation: location	9.70	1.053	6.36	2.055
: Waiting time between entrance & seating	9.63	1.175	6.18	2.129
: Customer service by shop staff	9.83	1.063	5.98	2.080
: Waiting time between ordering & served	9.55	1.202	6.07	1.973
: Taste of food/drink	9.86	1.057	5.97	1.978
: Variety of food/ drink menu	9.92	1.038	5.91	1.902
: Cleanliness of the shop	9.91	0.961	5.92	2.026
: Ambience, such as decoration, BGM	9.85	0.959	5.92	1.871
: Comfort of seats and tables	9.85	0.993	5.82	1.977
: Other customers' attire, attitude, loudness	9.81	1.076	5.45	1.984
: Smoking and non-smoking arrangement	9.61	1.411	6.27	2.233
: Smooth bill payment	9.92	0.908	6.16	2.046
: Courtesy at bill payment	9.92	0.970	6.10	2.038
: Reasonability of pricing	9.68	1.202	5.79	2.017
: Pricing on food/drink for the purpose	9.65	1.107	5.53	1.974
: Amount spent compared to the income	9.85	1.102	5.64	1.835

	India: n=334		Japan: n=251	
<Coffee Shop>	**Mean**	**Standard Deviation**	**Mean**	**Standard Deviation**
Overall CS	**8.25**	**1.769**	**6.84**	**1.718**
Partial evaluation: location	9.39	1.488	6.98	1.941
: Waiting time between entrance & seating	9.48	1.310	6.39	2.127
: Customer service by shop staff	9.52	1.540	6.68	2.064
: Waiting time between ordering & served	9.49	1.412	6.41	2.029
: Taste of food/drink	9.51	1.375	6.88	2.036
: Variety of food/ drink menu	9.57	1.358	6.49	1.936
: Cleanliness of the shop	9.54	1.370	6.92	2.023
: Ambience, such as decoration, BGM	9.60	1.371	6.86	1.848
: Comfort of seats and tables	9.58	1.310	6.40	2.054
: Other customers' attire, attitude, loudness	9.52	1.342	6.33	1.968
: Smoking and non-smoking arrangement	9.46	1.500	7.12	2.334
: Smooth bill payment	9.64	1.396	6.86	2.007
: Courtesy at bill payment	9.58	1.326	6.82	1.959
: Reasonability of pricing	9.31	1.713	5.85	2.029
: Pricing on food/drink for the purpose	9.39	1.480	5.37	2.113
: Amount spent compared to the income	9.43	1.556	5.45	1.988

A Japanese billion dollar company uses CSR activities to incorporate a new global expansion strategy: Olympus case study

Maria Vasileva Ilieva, Osaka City University

AJBS 2021 Proceedings:

#13

Title: **A Japanese billion dollar company uses CSR activities to incorporate a new global expansion strategy: Olympus case study**

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Abstract

Olympus Corporation is famous for its CSR activities worldwide and their strategy implementation is incorporated in the social citizenship behavior of the company – they are 'doing well', while 'doing good'. This case study examines how a Japanese company uses CSR activities to incorporate a new global expansion strategy in different locations around the world and involves its employees in it. Olympus has been awarded as one of the top 100 most innovative companies in the world from 2012 to 2020, and it has won many awards for their ESG initiatives. They proactively carry out the activities that benefit global and local communities, while at the same time they fulfill their responsibilities to society and all of their stakeholders. The author uses multiple case study with pattern matching among 39 regions and countries, divided to home and host countries. The host countries are additionally divided to 'developed', 'developing', and 'least developed'. The particular case with a focus on Korea provides more details on the employees' and stakeholders' perceptions of the CSR activities. The author uses the strategic opportunity aspect of CSR initiatives to show that location advantages in both developed and developing economies, can be improved in this way; many employees decided to join the company because they were impressed by the CSR initiatives.

Keywords: CSR activities, Strategy implementation, MNE, Employees' involvement in CSR

Digital Platforms and Legitimacy Building: The Case of Indonesian Enterprises

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Digital Platforms and Legitimacy Building:

The Case of Indonesian Enterprises

Abstract

Internet technology proliferates traditional markets, including the informal economy, business that is outside a formal regulation, yet it is acceptable or legitimate by certain groups of people. This study aims to examine what drives platforms to transform the informal economy and how they obtain legitimacy in the micro-macro level of institutions. Semi-structured interviews were conducted to illustrate the phenomenon of technology-driven startups. There were fifteen respondents who varied widely in terms of occupation and industries. Our study reveals that digital transformation is not a mere process but also a comprehensive action to reinvent what has been socially accepted by the community. I propose bottom-up legitimacy building as an appropriate mechanism in the setting of an emerging market, such as in Indonesia, where institutional voids might cause informality. Identifying the problems on an industry-level, it is difficult to confirm whether different sectors would experience a different process, for example, financial industries as a highly regulated market. Practically, our research suggests that digital transformation could not be separated from institutional barriers presented as the existence of informal sectors. Future studies should evaluate the role of startups to alleviate the incongruence of the formal setting and nurture economic improvement, rather than seeing them as disruptive innovation. This study suggests another way in identifying the legitimacy building, that both digital-driven startups and informal business players need to shape institutional innovation. To date, previous research mainly focused on business model development, but few addressed the institution dynamic between digital entrepreneurs and regulation settings, especially from a perspective of the informal market.

Keywords: digital platforms, informal economy, institutions, legitimacy, startups

1. INTRODUCTION

In recent decades, digitization has opened ubiquitous opportunities for creative and innovative individuals to form a technology-driven startup (Kraus et al., 2018; Srinivasan & Venkatraman, 2018a). Through network and data exchange (Eisenmann et al., 2011; Gawer & Cusumano, 2014), platforms serve as a primary tool for sharing economy, peer-to-peer economy, and the gig economy business models. These practices contributed not only to the development of market mechanisms (Cheng, 2016) but also in altering consumer behavior (Hamari et al., 2016). With digital platforms and its medium, users are now able to join and take both parts as customers and vendors at the same time (Parker et al., 2016). For instance, Uber Taxi, a company that targets the transportation sector, and Airbnb, which, initially, tries to connect travelers and room owners using the internet as a leading network. Although it may affect differently across regions, startups are likely in charge in constituting technology-based informal business.

The informal economy, which happens in part because of institutions incongruences, is not a new term (Chen, 2007; Williams & Nadin, 2010), but the definition itself remains unclear because practices varied among countries (Thai & Turkina, 2014). Emerging markets are vulnerable to informality despite their enormous contribution to the annual gross domestic products (Godfrey, 2011; Williams et al., 2017). Studies often contested the terminology with regulation, and rules because the legality is questionable (Webb et al., 2009). One notable argument argued that informal sectors occurred because the institutional gaps in which entrepreneurs actively pursue and fill it (Gao et al., 2017; Mair et al., 2012). While they leverage the opportunity, society takes it for granted products and services derived from informality. The digital transformation of informal sectors is now encountering considerable challenges to position itself in the market.

First, previous studies on entrepreneurship and digital platforms averred this trend as market disruption (Christensen, 2006; Nambisan, 2017). It poses a power to constitute market-shifting, which is a perspective of incumbent, practices such as sharing economy will acquire their existing customers (Kathan et al., 2016). Moreover, startups are sometimes received spoonful financial support from venture capitals that make the competition tighter between traditional and modern business (Ahlstrom & Bruton,

2006, 2006). Second, the hardest hurdles awaiting the nascent industry is formal regulative institutions (M. Cohen & Sundararajan, 2017; Williams, 2015). The government needs to control and monitor that each business performs good governance accordingly. Since platforms are somewhat invisible (Evans et al., 2006), it may flow freely throughout boundaries and ignore regulations.

In the sense that, currently, informal sectors are supported with technologically advanced innovation, the primary focus of the study is to investigate what drives platforms to transform informal business and how platforms gain legitimacy from the institution (Williams Middleton, 2013; Zuzul & Edmondson, 2017). In addressing these questions, the current paper attempts to contribute to some aspects of entrepreneurship and the digital economy. First, it shed light on the unique process of digitally transforming conventional business within the informal economy works of literature. It is a fascinating and essential area of study regarding the potential growth of platforms, specifically in the emerging market, about their strategy in exploiting the disequilibrium of formal and informal institutions.

Second, while previous research mainly focuses on the iterative process of designing technology-driven ventures, our research seeks different perspectives of legitimacy building. I found that not only the startups but also the informal sectors are craving for instituting innovation. Our study emphasizes two different levels of legitimacy building - micro and macro – in the process of reinventing the informal economy. At the micro-level, platforms seek agreement from end-users and market mechanisms. At the macro level, they are bounded with the reality that institutional gaps exist, and the regulatory environment is uncertain. Therefore, bottom-up legitimacy is practically suitable in an emerging market setting.

This paper disclosed interviews with founders, co-founders, C-level people, and managers of digital-driven startups in Indonesia. I analyzed the interviews with a deductive approach to identify interesting findings such as challenges and opportunity recognition, legitimacy building, as well as technology involvement that possibly affects the entrepreneurial process. This iterative process of data analysis provides a framework for using the informal economy to establish promising business models through different levels of analysis.

The remainder of the study is presented as follows. The next section will explain a comprehensive literature review which comprehends the definition of institutional entrepreneurship and informal economy. Second, a brief illustration of the methodology used to collect the data from the respondents and the general characteristic of each respondent. The section will also tell what approach is taken to identify and solve the problems asserted in this study. The third section comprises the main findings from the data gathered and is followed by a discussion on how the research contributes to research on entrepreneurship. Finally, the conclusion drawn from the discussion and analysis is presented, not to mention critiques and any limitations of the study.

2. LITERATURE REVIEW

Digital platforms and entrepreneurship

The entrepreneurial activity has been evolving from a traditional into a modern process that requires internet technology to be the central infrastructure for business modeling (Nambisan, 2017; Parker et al., 2016). What distinguished digital platforms to other conventional businesses are how it perceives network effects as salient factors to add more value (Gawer & Cusumano, 2014). The benefit of embedding technology into the business model unveils various underdeveloped opportunities. For a typical pipeline business, it can shorten the supply chain significantly (Eisenmann et al., 2011) and offer an efficient and effective method for goods and services exchange (Armanios et al., 2017). Installing technology into the process of startup creation will also promote platforms as a medium of sharing physical goods, sharing of digital content, and customers to customers services (Hamari et al., 2016; Richter et al., 2017).

Digital business, in its nature, offers dynamic and flexibility to excel transactions between producers and customers. In performing a digital-driven practice, regions become borderless, and partnerships can be done within available networks (Evans et al., 2006; Kraus et al., 2018). It is the merit of embedding technology into the new model so that entrepreneurs enable their platforms to scale themselves and acquire a broader market. While this advantage might escalate innovation to be amicably widespread, just as Napster encountered lawsuit, platforms should be cautiously alerted to approach

nearly illegal practice. A critical strategy to continue giving service is not only placed on how they fulfill users' demand but also how to align best practices and governance.

Research on digital entrepreneurship argued that the proliferation of platforms requires several critical factors to ensure that it works smoothly (Mirzanti et al., 2019; Srinivasan & Venkatraman, 2018a). Those are technology supports and well-developed infrastructure (Ojala, 2016), a reliable ecosystem (Gawer & Cusumano, 2014; Su, 2020), and institutional support (Hu et al., 2016; Tang, 2010). Unlike a conventional process, entrepreneurs who work in digital sectors are encouraged to provide what has not been created in the market. Studies emphasized that they have to optimize limited resources within available networks (Cheng, 2016). In the digital business, a mere new product is not an answer instead of improving customers' satisfaction through seamless technological innovation (Zervas et al., 2017). An example of successful innovation that shook the market is the emergence of sharing economy business models.

Since Uber introduced its service in 2009, scholars coined the sharing economy as a new practice model that is likely to cause market disruption (B. Cohen & Kietzmann, 2014; Kathan et al., 2016). From customers' perspectives, mobile applications are convenient, less time-consuming, and materially cheaper. Within the platforms, a single customer is now able to perform dual roles as a customer and a vendor simultaneously (Parker et al., 2016). Even though the community widely accepts it, there has been an economic dispute from existing players to stand against technology-driven startups such as Uber and Airbnb. Incumbents might oppose and insist that it blurs ownership exclusivity and professionalism. They claimed that without sufficient knowledge, users are hazardous to squander and cause fraudulent that affects other parties ineptly.

In order to suppress the externalities, platforms are positioned in a place where regulation is highly required (Überbacher, 2014; Zuzul & Tripsas, 2019). It is not to resist entrepreneurs and hinder technology innovation from getting more significant. Instead, it is to protect producers, customers, and platforms itself under a definitive umbrella (M. Cohen & Sundararajan, 2017). Notably, in an emerging market where law enforcement is weaker than in developed ones, platforms fill the market gaps or voids.

Hence, to undertake this action, entrepreneurs in the digital platforms are advised to follow the formality and obtain legitimacy.

Informal economy in the digital era

The informal economy falls on an incongruence between legal and illegal (Webb et al., 2009), and it is sometimes induced by the failure of institutions to provide necessities for society (Gao et al., 2017; Mair et al., 2012). Legal is generally associated with a set of law instruments (Godfrey, 2011; Webb et al., 2014), how it codifies the social system and the goals of the policy. Informal businesses, however, take advantage of the grey area (Castro et al., 2014; Lee & Hung, 2014), which is outside what is stated legal by the regulatory system yet is excluded from illegal practices. Entrepreneurs are expected to fill in the gap by tackling the bottleneck and nurture available public resources optimally (Williams, 2015). The degree of informal business practices may vary regarding how an authority treats and rule its environment.

There are several types of research studying the role of institutions in entrepreneurship (Armanios et al., 2017; Garud et al., 2007; Maguire et al., 2004) and market creation in emerging markets (Tracey & Phillips, 2011; Wade-Benzoni et al., 2002). Comprising a set of rules, norms, and believes, institutions enabled the community to confirm what is allowed and prohibited at the same time, thereby an order exists. Traditional institutional theorists argued that its implications are constituted into three forms, which are cognitive, moral, and regulative (Scott, 2001; Suchman, 1995). When attempting to obtain legitimacy from an institution, often, actors presume institutions and regulation as take for granted (Williams Middleton, 2013; Zuzul & Edmondson, 2017). Choices between being legal or legitimate became the center of attention of the previous study on how one would comprise institutional voids in the emerging market.

Arguments on the informal economy are not only about utilizing legitimate means (Webb et al., 2014) and generate legitimate ends. Another study also highlighted some pivotal issues, such as labor and employment policy (Williams & Nadin, 2010), the risk of tax evasion, and gaining legitimacy in an unregulated market (Bitektine & Haack, 2015). Performing informal sectors supported by advanced

internet technology, to some extent, will trigger the creation of digitalization of informal business. Digital platforms become a critical vendor to accommodate various parties, including producers, users, and other resources (Schallmo et al., 2017). In an emerging market, like Indonesia, technology-driven businesses more likely to succeed if the founder can elaborate on such problematic issues.

Unlike entrepreneurs in developed countries, those who start a business in less developed countries are vulnerable to ecosystem uncertainty, and resource contains (Armanios et al., 2017; Ojala, 2016). A venture capitalist, VC, might prefer to fund startup in a more stable market rather than investing in an emerging market (Ahlstrom & Bruton, 2006; Tracey & Phillips, 2011). However, the study found that VC reduces market failure; thus, it enabled emerging markets to perform better (Scheela et al., 2015). Despite its complicatedness, the importance of building mutualism benefits with the local institution is one of the critical success of a nascent business as well as the support from venture capital. Scrutinizing the discussion on how entrepreneurial activities transform informal sectors will contribute significantly to a theoretical and practical framework in reinventing the informal economy in the digital era.

Startups and informal sectors in Indonesia

Informal sectors account for about 70 percent of the total labor force in Indonesia which are mostly in the form of small-scale business and self-employment, but the sectors vary from agriculture, manufacture, hospitality, and social service (Rothenberg et al., 2016). Entrepreneurs or self-employees prefer to perform informal business due to several reasons such as low educational background, weak law enforcement, and high entrance barriers set by the authorities (Babbitt et al., 2015). The latter refers to the high cost of registering a venture so that informality persists and likely rely on social acceptance. It gradually attracts stakeholders' attention when several digital-driven startups seem to determine to bring the informal economy to another level.

In Indonesia, it was not until 2014 when a ride-hailing company started introducing a mobile application to hail an *ojek*, which is a motorbike-taxi. Despite the prevalent use for short distance moving, there is no specific law, whether it can be used to transport passengers. The turmoil between the company and existing transportation unions reached its peak when the incumbents insisted the government to ban

any digital-driven services. Similar to the ride-hailing startup, e-commerce and marketplace are put in a tough situation because many conventional department stores and retailers blame e-commerce for avoiding the tax by moving to a digital place. The debate persists, but, as startups gain more awareness as the time goes by, digital economy development is inevitable.

To date, research on digital platforms and the informal economy are done separately. Studies on digital entrepreneurship and startups revealed that platforms seek to obtain legitimacy in order to institutionalize innovation and creativity (Kraus et al., 2018; Zuzul & Edmondson, 2017). Challenges related to legitimacy revolves around convincing the market to shift the consumption pattern and transforming regulation that supports digitization. At the same time, informal sectors, too, struggle to optimize the grey area where chances are plausible, yet legality is often frequently neglected (Castro et al., 2014; Thai & Turkina, 2014). Regarding the need for formalization, players should follow complicated and costly procedures that hinder them from being legally admitted. Hence, it is fascinating to examine these issues on how platforms that involve in the informal business gain legitimacy in the micro and macro level of institutions.

This research aims to contribute to both theoretical and practical ground. Theoretically, I provide evidence of the digital transformation process of the informal economy and the escalating drivers. Problems such as market inefficiency and asymmetrical information create a gap that allows informal business and later is tackled by digital-driven startups. Rather than examining how the incongruence of the formal institutions inhibit opportunity, a current study exploring possible drivers that enhance market transactions through digital innovation. It is compelling to investigate drivers of determinants in choosing informal sectors as a core idea and the creative process behind it, especially when policy uncertainty is high.

Practically, our research will shed light on stakeholders in many ways. For platforms' founders, it illustrates both advantages and disadvantages to establish a business in an emerging market. Officials will also get the benefit of understanding a unique pattern between traditional and modern business models that affect institutional changes. Last but not least, our research informs the market and customers about

the idea of contributing to technological platforms from the closest issues in daily life, which is informal business. Hence, I contend that instead of arguing digitization of conventional business as a disruptive innovation, scholars on the management and entrepreneurship field should consider evaluating the role of a digital-driven business model to alleviate the incongruence of the formal setting and nurture economic improvement.

3. RESEARCH METHOD

This study developed a qualitative approach that attempts to identify each of every data used to support the research. I provided examples and cases to examine the entrepreneurial process in digital-driven startups. To answer our research question, I followed recent qualitative studies about entrepreneurship and digital platform that included interviews for the primary analysis (Kraus et al., 2018; Lee & Hung, 2014). To the best of our knowledge, working with this approach has given us different perspectives on entrepreneurship from respondents. Besides, it represented an avenue to emphasize and synthesize every spoken language during the interview process (Castro et al., 2014). Although this study is far from building the theory of entrepreneurship in digital platforms, I hope that this research will be able to clarify the phenomenal occurrence that reflects the digital era.

Data was collected through several interviews in Jakarta and Bandung, Indonesia, during four-week fieldwork in February 2019. I focused on platforms or startups that were founded only by Indonesian, placing the headquarter in Indonesia and providing services for mostly Indonesian markets. Initially, a semi-structured interview guideline was prepared for data collection. However, concerning that these individuals or respondents were quite diverse, in terms of their position, responsibilities, and sectors, I adjusted the guideline depending on the respondents. It mainly contained several vital points to addressed during the interviews, such as ideation, innovative process, challenges, opportunities, and things related to the ecosystem.

I started with a few names confirming their availability and willingness to participate in this study. Before the interview, respondents received an email or message to ask if they were disposed to meet and conduct a discussion about platforms in Indonesia. Once I finished contacting them via electronic mail,

both authors and respondents set the schedule for a face-to-face interview. At the end of the interviews, I asked if they could recommend another person who had an idea about the topic being researched. Eventually, a snowball sampling to select interviewees was performed to reach all contacts for study purpose.

From the whole process, I eventually obtained fourteen interviews, including founders and co-founders of startups, C-level persons, and managers. To complete a comprehensive picture of the startups' ecosystem in Indonesia, there has been some casual discussion with accelerators and startups incubators in Indonesia as well. There were no specific criteria for selecting individuals to participate in the study. However, I limited the interview with participants founded or engaged with the platform-based business. Although in the beginning, authors did not specify to study informal business, during the fieldwork, the respondents mentioned informal sectors implicitly. With a few adjustments, authors scrutinized further analysis to identify and explore the concept of informal sectors in digital business.

Table 1 below presents an overview of the interviewed individuals, which is varied to one of another. It showed that several respondents worked on transportation or ride-hailing service company since it was a pioneer, the largest, and the most popular platforms used by customers in Indonesia. Two interviews with financial technology (fintech) platforms, and one interview for each sector; marketplace, education, agriculture, tourism, and the last, but the least is the health sector. Although this seems to be quite diverse sectors one to another, I believe it can illustrate how beneficial their existence to support the startup ecosystem in Indonesia.

Table 1 List of Respondents

All of the interviews listed in this study were audio recorded in order to obtain reliable and responsible data for further analysis. In attempts to clarify that respondents were comfortable during the process of the interview, I asked whether the use of audio recording was possible. Few respondents refused to be recorded due to confidentiality to the topic being discussed, so the researcher mostly relied on written notes to highlight important issues covered during the process of interview. I performed most of the interviews in Indonesian languages, because it was convenient, except only one interview was done

in English. The researcher took note while having a discussion to mark out essential points by interviewees. Upon finishing the interview, notes were typed into a computer, and recorded audio was transcribed using a method of verbatim.

The data analysis began by identifying essential points related to the goal of this study from transcribed interviews. While taking notes on a transcript, data were analyzed with qualitative data software, MAXQDA, assisting the author to create an organized and straightforward view of codes and notes. In the first step, I coded all of the transcripts into dozens of coding names and sections related to particular themes. There are broad topics and categories that I try to cover: types of informal business, opportunity recognition, challenges, market validation, regulation compliance.

After the transcripts were fully coded, I summarized the codes into a table for preliminary findings. It helped the authors categorized which one was major and significant codes following further examination. Through this process, I later identified the correlation between each code and classify whether it is necessary to have additional codes. Since this study investigates legitimacy building for digital startups, a two-level approach of legitimacy is covered: micro and macro. Micro-level talks about users' acquisition, while macro elucidates market penetration and regulative governance.

To strengthen the idea of each topic and figure out the pattern, a visual aid such networking graph illustrating the correlation among codes was presented. I iterated the process back and forth to capture important messages and checked the conformity with our research question. Data analysis was conducted mainly in the Indonesian language so that I do not lose the original context. However, to present the findings, I translated it into English.

4. RESULTS AND FINDINGS

The study of entrepreneurship emphasized not only the assumption that opportunities could be found anywhere but also how an individual can recognize and escalate it. In this section, I highlighted arguments asserted by respondents regarding the strategy of entrepreneurs in Indonesia to extract one issue and transform it into widely accessible platform services. I present the findings into several primary issues to develop a framework on how platforms transform informal sectors and build legitimacy through

a two-level approach. First, I present the digitalization process of informal sectors followed by the drivers, untapped market gaps, and available technology optimization. Second, I provide evidence of legitimacy building in the micro and macro levels of institutions in Indonesia.

4.1 Digitalization of informal sectors

Although informal business is widespread and socially acceptable, most of the time, it is unstructured and unorganized. From demand perspectives, economic opportunities are prevalent, yet challenges are inevitable as well. The founders of platforms might be staggered between leveraging prospects and overcoming adversities to create feasible products. The respondents did not mention about informal economy explicitly, but our shreds of evidence highlight that they are economically attuned to circumstances that emerge informal practices. During the operation, platforms offer a modern way of using internet technology for informal business is undoubtedly an advantage.

Interview-1: There are more than 35 million out of 250 million people in the country visiting pawnshop each year. So, it is like locally accepted; people are accustomed to it.

Interview-10: Speaking of legality, there many practices like these, but most are private.

Transformation is not necessarily a creation of entirely new products. A founder might start a project with something that he already runs conventionally. In an era when technology is unstoppable, there is a need to comprehend and evaluate whether changing the nature of the business model would benefit the company. However, ventures could not apply technology thoroughly in the ideation process. It starts within a small-scale and provides a quite limited area using available technology.

Interview-5: In the beginning, when I started to develop this business, I would create a platform where customers use an application book a service and choose nearby technicians.

Interview-11: At that time, it was using the call center, where you booked your *ojek*, and then you have someone picking up the phone. Later, ojek is dispatching to your location.

The above statements confirmed that platforms initially explored informal sectors as a base for digitalization. In this case, a sophisticated system is less important than the ability of a platform to

recognize prospective demand. Possibly, enlarging the current market, proposing different methods, improving users' experience are some antecedents that define digital transformation for informal sectors.

4.2 Untapped market gaps

Managing business in an emerging market, hurdles inexorably challenge entrepreneurs to overcome it. Since the environment is unattractive and uncertain, the informal economy is prone to prevail in an emerging market rather than in a more developed market. Voids come in different varieties, depending on market readiness, institutional settings, and socio-culture. A missing intermediary, to an extent, is a good example that would obstruct the market from growing aptly. In this section, I present notable illustrations that elicit platforms to fill the untapped market gaps.

Financial service is likely a sector that depicts institutional incongruence in the Indonesian market. While a bank is mostly accessible by people in the developed markets, individuals in less developed ones struggle to apply for a bank loan. Furthermore, the number of unbanked population, people who do not register a bank account, is pretty high. They are accustomed to borrowing cash from a loan shark, instead of visiting authorized financial institutions. Another founder of a financial technology platform that focuses explicitly on financial literacy corresponds to the sentiment. He confidently argued that a lack of information and knowledge causes an illiterate community to use financial products properly. It seems to be a severe gap where this platform tries to crack the bottleneck and bring more benefits for individuals and micro business.

Interview-1: I did some research that the financing gap is undoubtedly a huge issue, which is why practices such as (unlicensed) moneylenders exist.

Interview-7: Principally, I strive for people to be financially attuned in managing their income and start moving from saving society to investing in society.

Lax monitoring arrangements at the market also trouble supply-demand between producers and end-consumers. A co-founder of the agriculture platform expressed that farmers are always put in a disadvantageous position about product pricing. In health service, a CEO of the homecare platform

conveyed similar issues in which nurses and caretakers are often misplaced due to the inexistence of proper legal protection. Homecare linking patients and medics are seemingly informal agreements.

Interview-13: One of the problems that I aim to rise is an unreasonably high price gap among farmers to end-customers. Once I identified, I tried to disrupt by connecting them directly.

Interview-10: There are many of them, nurses visiting patients' houses and are well paid. However, what makes it dangerous is because there is no legal protection to cover them.

Untapping market gaps is a start where founders harness undeveloped mechanisms and solve particular problems. It might be correct that informal business sectors are both effects information asymmetry and weak law enforcement. Comments and statements above confirm that gaps can be factors that drive founders in an ideating business model.

4.3 Available technology optimization

In the process of digitalization, available technology contributes significantly to defining which platforms would enhance the experience. Information technology (IT) shapes the way platforms exploit informal business and leverage opportunities. A CBO of digital-driven startups incubator mentioned that although technology is plausible, the most significant barrier is human resource recruitment. I found that infrastructure and human resources in Indonesia are ten years behind another emerging market like in India. Instead of hiring or inviting foreigners to work in Indonesia, they prefer to search the 'hidden gems,' those who have met the qualifications and criteria yet are given little chances, throughout the country.

Interview-9: When I are growing, looking for a software engineer is very difficult. Good supplies (of engineers) are rare.

Interview-3: To recruit professionally talented persons working as a product manager is challenging. How do I discover someone who can scale up systems, instead of project-based delivery?

However, human resources in technology are not the only element that determines whether the business model is fit for the community. Conflict of interest amidst informal business players are considerably significant antecedents for technology optimization. End-users, too, might experience that

utilizing digital services is complex and requires costly additional resources. Nevertheless, the community less likely to understand the notion of transforming informal sectors into accessible digital-driven products and services. Incompetents users may evoke fraudulently and tend to damage the well-developed network.

Interview-12: From the perspective of *ojek* itself, they were afraid of change. They were not familiar with a mobile application or platform.

Interview-5: The negative impact, people think that the internet is free. It is somehow quite annoying that people assume applications, too, are free products.

Having noted the advantage and disadvantages of the exploration of embedding platforms into the market, it is proof that technology poses as a driver and challenges at the same time. The degree to which founders can deliver the vision by convincing the likelihood that their products would benefit the community instead of impairing the traditional market.

4.4. Micro legitimacy: customer-centric proposition

The findings suggest that in order to address informal sectors, platforms businesses reflect on two notable aspects. At the micro-level, they represent active contributors to nurture customers' knowledge and encompass social impact. Excerpts below accentuate the strategy taken by founders and the team to tackle gaps and gain market entrustment.

Nurturing customers' knowledge. As I mentioned previously that customers too are resistant when they are offered with newly invented innovation. Customers barely knowing the merits of digital platforms were less likely to fulfill the needs through innovation. Also, to boost revenue and expand the business, startups ought to educate society on the benefit of using technology.

Interview-13: The highest cost is the cost to educate end-customers. It was done by Indonesia-origin startup unicorn, which finally new-comer startups could enjoy the impact of it.

Interview-10: Now, our dilemma is that I spent more budget to educate people than to expand our budget for marketing, operation, and product.

The founders of a startup and its team must be able to toil systems and flowed charts, as well as decide the perfect timing for launching. Wrong timing is believed as one of many factors that block nascent businesses to obtain promised growth. At the very least, teams should carefully reflect on customers' readiness side to side with digital infrastructure as supporting modes. Unless teams convince that market is ready, a though deliberation is needed whether or not to launch the platform and product.

Interview-2: Supposed I created a platform in 2010, it would not be that way. Have you ever heard about Food Panda? Why they were not successful, but I were, it was a matter of time.

Interview-11: I always say that our success is very circumstantial, meaning that I could not have launched the app in 2010 when the best phone was the blackberry. Android or iOShas not been going to the market. So in 2015, it all was timing.

That said, the platforms, initially, opt to go conventional rather than insisting on the market moving their activities through technological means, underscoring that during the pre-emerge startups period, solely a few people owned smartphones, which in turn hindered the opportunity of introducing an application for accessing applications. Targeted customers are less cultivated about technology and how to optimize technology information to reduce inefficiency and resource constraints. A typical question such as "is the market ready enough with our products?" should have been put on the top list to ensure that products and services are needed, and hence create impact.

Encompassing social impact. According to the interviews, there are some appealing statements that, besides the economic opportunity on the demand side, what drives startups to escalate their position in the market is to offer a social impact—considering that respondents for this study mentioned about impact, extending technology to boost impactful innovation for society. Platforms are persuaded not only to obtain measurable goals such as financial gain and market shares but also to improve the life of the community as it is stated by a founder of a business incubator who is, at the same time, full-time academic staff in the university.

Interview-6: Being big is not a goal for me. Now I are shifting to impact… the goal is indeed an achievement, but it should give a good impact (on society).

As platforms are scratching numerous grassroots problems, the ultimate goal is solely number. Our findings show plausible arguments that platforms scrutinize their product to fit in socio-culture issues and promise social impact. These are achievable in many ways, such as providing more vacancies for people to join as partners, speeding up product marketing for micro-business, shortening the supply chain for efficient products selling, getting rid of the traffic jam, educating people about the danger of illegal lending, and many other. It is not a one-night strategy to build the platform with such value. However, to the extent, startups can embody their value is favorable in addressing the institutional voids and harnessing the ecosystem.

Interview-13: I are a platform that seeks to reduce the supply chain, for local commodities in Indonesia.

Interview-9: I opened a hackerspace so that our hiring partner could recruit talents without asking them to leave for Jakarta. By doing so, they can still work in Yogyakarta and can empower the local market.

In a sense that platforms perceive being socially contributive is one of their main goals, the impact itself starts from an immeasurable construct. For example, a ride-sharing platform identifies impact as providing job opportunities, in which informal motor-taxi drivers could earn more income. For SME business, the impact is to widen market coverage by merely listing the products and services to platforms as well as how the financial platforms set their goal to achieve responsible finance and a solution that the government failed to provide.

Interview-8: Our company has evolved from practical e-commerce to be an enabler for people (business) at the grassroots to rise on the surface.

Interview-11: How I are going to tackle the social impact, it was embedded from the very beginning, right? You are taking an informal sector and formalizing it by allowing people to work in a company.

This section confirms that for a startup in an emerging market, the social impact is an important determinant. Otherwise, platforms will not be able to empower informality and develop it into a profitable business model.

4.5 Macro legitimacy: regulatory compliance

While entry regulation varied between countries, the regulative environment in Indonesia is leniently weak. The condition dispensed promising avenue for entrepreneurs to build their startup in which pursuing eligibility is likely an urgent matter. Instead of hampering new entrants, authorities are more likely to wait and see how startup enables the market through its innovation. The notion that regulation consistently follows the market, by some means, have evoked dynamics between regulation maker and entrepreneurs. The process is undoubtedly arduous and time-consuming, yet it should result in a comprehensible decision that both parties, as well as the market, be conscious of their position.

Dual Roles of government. Our interviewees pointed out situations where responsible authorities are permissive to emerging new platforms. They seem unreceptive to the fact that technology has reinvented informal sectors in an entirely new look. It is not that regulation follows innovation, but states pay less attention to the new player before it scales successfully. Two examples below prove that startups receive silent support from the officials.

Interview-12: They just watched there are green uniforms on the streets passing by here and there.

Interview-4: Actually, they are aware of us. It is not like I are mice, and they are cats, but I do our best to comply with existing rules.

On some occasions, the government is actively encouraging platform founders to proliferate technology and innovation. The support comes not only as financial aid but also as motivational assistance in order to bridge and arrange the ecosystem. Here, informality is not a central focus, but how advanced creativity would be fit to saturate market gaps. They prefer to monitor a condition in which the market creates so-called self-regulatory mechanisms.

Interview-10: Our Minister of Health, too, explained to us to keep growing the business bigger, later they would regulate.

Interview-3: Speaking of regulation, I think that the government is supportive. Although I are not sure about the taxation, they are still on the discussion.

On the other hand, the financial sectors might not garner the incentives. Financial technology

platforms encountered more profound obstacles to deal with regulation. As an intermediary in online lending, trust is not only a critical part of the business for creditors but also for the lender. Since the market itself is well established and highly regulated, the founder carefully considered how to meet the requirements and conditions proposed by the authorities before penetrating a market. Not all entrants in the fintech sector are eligible to continue the business model unless they can complete all the prerequisites from the government. However, during the process of obtaining the license, startups are welcome to discuss and ask for suggestions on what they should do, or they should not.

Interview-4: (New regulation) undoubtedly, it impacted on our platform, but not too significant. Nevertheless, most of our customers, always asking if our business already obtained a license (organizing crowdfunding).

Interview-7: For fintech platforms that have not been governed, they are put in the sandbox. I are now in the process.

The founder of an online crowd investment fully understood that the financial sector in Indonesia is highly regulated. At the moment of the platform launched, there were not any single regulations categorically ruling about online crowd investment. Later, in late 2018, the government, through OJK, issued a regulation aimed at organizing the existence of a crowdfunding platform. They barely surprised but cautiously stepped on another plan for scaling up the business. Rather than perceiving it as an obstacle, the founder argued that new regulation enables the market to put more trust more on the platform.

Procedural compliance. Whereas the informality persists, founders of the platforms are obliged to register the company under a legal entity. The registration process requires necessary documents such as the name of the company, the products and services offered, and a statement disclosing the source of its capital. As the process takes time, the bureau will assess business feasibility and examine all prerequisite paper works. Generally, people register a business as *Perseroan Terbatas* (Co. Ltd). The administrative works are not only as a procedural measure but also as trust-building within the market.

Interview-8: One of our steps to building their trust, last month, I registered our company under Co.

Ltd. legally.

Interview-4: I have spent some amount of money on official registration. By doing so, I must have them trust our company.

With technology, founders believe in overcoming different social issues and problems that fall in the grey area. The Law system is not a boundary that limits creativity rather than an arrangement that manages applied criteria for platforms. Since enforcement is weak, technology ventures are freed from choosing types of provided services to customers. As previously explained that practices of illegal -or at least, legitimate- a form of business exist without notice from the government. Startups, then, allude the gaps into feasible strategies by taking the advantage that regulations follow innovation. In short, the law on digital platforms is sort of non-existent, which has unlocked the business opportunity.

Interview-5: Regarding regulation, there are no significant issues. As long as I are not authorized, I have no obligation to pay taxes, right?

Contrarily, the health sector stumbled upon stringent laws, especially in terms of partners or agents hiring. Despite unclear conditions in health platforms, companies are required to follow existing professionalism procedures. To guarantee the service quality, the online homecare service provider put on several requirements for nurses or caretakers as their agents and partners. Another statement clarifies that they have to make sure all partners they are working with can show a valid license before joining.

Interview-10: For medical (caretaker), they need an STR (license), graduates from nursing school, at least one year (experience) in the hospital, or have already done home care.

Interview-12: When they register in our company, all drivers must be able to indicate valid ID, driving license, and vehicle certificate.

The above statements are direct evidence that platforms put attempts on ensuring that all activities under the company follow procedural steps. I could not confirm whether the transformation process as a strategy to formalize informal sectors. However, this will be an interesting further discussion when a legal entity embraces a legitimate activity.

5. DISCUSSIONS

In this article, I argue that digitization is not a mere process of transforming the business model. Instead, it offers burgeoning opportunities for platforms' founders to reinvent the socially accepted business. Drawing from the theoretical concept of institutions, I provided shreds of evidence on how technology-driven startups gain legitimacy at the micro and macro level. It is critical to understand that in an emerging market, like in Indonesia, obtaining legitimacy in the customers and market-level is more challenging than in the regulation system. In this section, I elaborate on our findings in three aspects that contribute to the current conceptualization of the digitization of informal sectors.

Graph 1 Conceptual framework

5.1 Reinventing the informal economy

The process of reinventing informal sectors relies on two focal determinants (Thai & Turkina, 2014). First, on the demand side, the prevalence of the market gap poses as an economic opportunity to start a platform. Our findings revealed that market efficiency and failure of the government to develop infrastructure caused the voids. Studies indicated, at least, two reasons why grassroots drawbacks occurred; a failure of the formal institution (Gao et al., 2017; Webb et al., 2009), and a broad range of educational level amidst community (Babbitt et al., 2015; Gupta et al., 2003). This circumstance attracts customers to undergo an unorganized and unsystematic flow in the grey area market. Second, on the supply side, technology is a salient driver that supports the idea of transforming informal sectors. Despite limited capacity and externalities, team creating platforms must spend more resources to penetrate technology into the market and educate users. It is very compelling evidence that in an emerging market, the cost of customer acquisition is possibly higher than the operating cost when products and services are in the digital form.

Studies have noticed that informal business became a common ground on various locally legitimate business practices depending on local norms and values (Castro et al., 2014; Chen, 2007). Platforms' founders seek to diagnose the grassroots problems and explore a plausible solution to overcome these issues. In order to optimize market penetration, platforms are expected to grasp the ideas that enable breakthrough innovation for reforming an underdeveloped ecosystem (Hu et al., 2016; Ojala, 2016). A

cautious combination of the demands by the market, which remains undone and suitable methods to deliver the innovation, is highly recommended in the following stage of exploration. Startups employ technology to enhance experience and convenience by introducing a digital platform, or a mobile application, to access all information, including products and services.

Regarding a large portion of informal business in an emerging market, such as in Indonesia, it accounts for more than 93% of total firms (Rothenberg et al., 2016). Platforms occupy small scale enterprises, micro-entrepreneurs, and self-employees and move them to a more technologically advanced medium. Platforms encourage players in the informal industries to overcome the bottom of the pyramid that inhibit market efficiency. Although it has been long accepted by the society, in the long term, issues such as information asymmetry will harm the order of unorganized works. I showed some examples of how micro-entrepreneurs, self-employment, and unofficial laborers remain working under the book. It is unique to identify legally registered platforms or digital-driven companies collaborating with diverse informal sectors.

The relationship between digital platforms and informality are analogous to that illustration of a person standing in two distinctive areas. On one leg, startups try to comply with the general requirements of starting up a company. On another leg, they keep stepping on the grey area, an area that is acceptable despite ambiguous states. They take advantage of the weak enforcement of a formal rule, but still, it follows the norms and values. Future studies may try to elaborate on how founders solve the ambiguity of involving technology in informal sectors. It will be an excellent chance to understand organizational changes and entrepreneurship where informality persists.

5.2 Bottom-up legitimacy

Unlike previous studies, this study highlights the idea that transformation less likely similar to the process of formalization. For instance, a study on informally established mobile phone factories in Shanzai-China shows that they employed three strategies to gain legitimacy in the formal market; framing, aggregating, and bridging. During the process, it requires the collection of agreement and support from officials in order to gain legitimacy (Lee & Hung, 2014). Another study also suggested that

the degree of formalizing a business depends on the level of governance within the institutions (Castro et al., 2014; Dau & Cuervo-Cazurra, 2014). If authorized parties fail in maintaining their power, the informal business will likely persist.

Our study, however, unveils different directions in understanding the need to formalize the business. In a condition where institutions are prone to change, nascent businesses prefer to focus on the end-customers and market-level than regulatory mechanisms. Apart from utilizing fully legal means and methods to generate services, startups captivate society by offering a convenient way to improve user experiences. Startups are likely to rely on the norms, values, beliefs, and social acceptability, rather than embedding themselves in restraining rules. Drawing the concept of legitimacy, the study reveals that startups in Indonesia put more considerable attention on gaining moral legitimacy over the rest of the two. It is confirmed from the way platforms emphasize on selecting the local value, defining the goals, and embedding in an institution.

This study fathoms the duality of the government who comprise a set of rules within an uncertain platform ecosystem. On the one hand, it remains permissive, to wait and see what platforms will do to improve the quality of the service before issuing a new regulation. On the other hand, startups, too, admitted that the government is approachable, open for discussion any possibilities to create a better ecosystem to benefit society as a whole, and related stakeholders. Startups appreciated that they are asked by the authorities to involve during the process of deliberating upcoming regulations, which mostly covered about taxation and pricing service for the platforms. Although startups suffered from the uncertainty on the ecosystem because rules are very dynamic and flexible, that impedes performance; they are reassured that regulation institutes a better station for enhancing the ecosystem better in the future.

In a setting where nascent industries seem to be benefited from uncertainty, self-regulatory might be appropriate to explain the condition (M. Cohen & Sundararajan, 2017; Williams Middleton, 2013). Its premise proposes theoretical thinking in which startups could govern a mechanism to enhance the attractiveness of the market. I proposed a framework thinking that in an emerging market, platforms

ecosystem follow the bottom-up legitimacy (Bitektine & Haack, 2015; Castro et al., 2014). It allows the platforms to scrutinize the strategy at the micro-level optimally. For instance, to gain legitimacy in Indonesia, it is more important to leverage the business model from the micro-level because regulation will follow. Institutions are subject to change when there are enough forces that benefit a nascent business in the long term. The question is, how will it change?

5.3. Impact over disruption

To date, research on digital platforms and startups asserted that these new business models are disruptive innovation (Christensen, 2006; Kathan et al., 2016). An idea in which nascent players replace a conventional business with a modern one. One popular reading by Christensen justified cases such as how taxi companies and their drivers infer Uber as a game-changer that disrupt the taxi industries. While disruption connotes a negative view of innovation and creativity (Corsi & Di Minin, 2014), this study implies a notable contrast. During the interviews, I found that the respondents expressed about delivering impact through the digital transformation of informal sectors. The assumption that informality falls on the discrepancy of formal institutions and, therefore, it constitutes social acceptance.

The merits of performing business, a digital-driven one, in an emerging market is that most of the platforms are attached with values to give a social impact. In a broad term, it should not only focus on obtaining material gains such as financial gain and brand awareness (Mair et al., 2012; Peng, 2001). Platforms, as well, contribute to market behavior shifting and institutional changes (El Ebrashi, 2013; Mair & Martí, 2006). Propositions such as improving informal workers' performance, educating users on new technology, lowering the rate of financial illiteracy, and expand the scope of micro-business. Nascent businesses, however, are prone to an advocacy trap if they draw themselves too deeps in such impacts. A longitudinal study on a nascent industry has shown that centering on legitimacy building, and impact would negatively affect its organizational ability to adapt to knowledge (Zuzul & Edmondson, 2017). It suggests new enterprises put deliberate concern in optimizing potential resources to improve performance measurably.

Choosing the best model can be elusive unless the new business players conscientiously deliberate their steps on what kind of platforms that are being taken (Gawer & Cusumano, 2014; Srinivasan & Venkatraman, 2018b). The interviews clearly illustrate that, in most cases, representing the platform as an intermediary is deemed to be the most available features. The digital platform, startups, manifest itself as a problem solver that intends to help society in fulfilling the needs. The ride-hailing platform consciously claimed their business as a solution for the helpless traffic jam in the big cities by offering valuable services. The e-commerce and marketplace platforms, in a similar yet distinctive condition, cracked the bottleneck by providing broader access for small and medium enterprises (SME) in Indonesia to sell their goods. These examples, sort of, consented assumption that in order to be recognized by the community, a platform has to tackle the local problems and voids and be precise about their value proposition.

Although there is no specific argument, taking into account social impact into a business is well appreciated for the sake of its business sustainability, especially in an emerging market. One should distinguish the characteristic of pure entrepreneurship and social enterprises that sometimes are overlapping (Hjorth & Holt, 2016). Despite the claim that platforms offer job opportunities and improve social welfare, future studies should declare a clear position whether or not this professionalism matters in the long run (Posen, 2015). Do users seek for a convenient service or deem a complete package of technologically advanced services? How would platforms standardize practically diverse partners?

6. Conclusion

This study investigated what drives platforms to transform informal business. Further, I examined how platforms gain legitimacy from institutions regarding an unclear definition of informality. I found that at least two drivers are escalating the process of reinventing informal business. I prove that the existence of institutional gaps has created market inefficiency; therefore, it poses as the demand for digital business proliferation. On the supply side, I found that available technology plays a vital role in defining whether or not a market is ready for the invention of platforms. Despite limited capacity, platforms' founder should overcome two challenges; market readiness with advanced technological innovation and

the risk of being exposed by the regulation. I propose that in an emerging market, where uncertainty is inevitable, and gaps are enormous, bottom-up legitimacy is accordingly suitable to implement.

The study contributes to the literature in several ways. First, instead of explaining the process as digital transformation, I prefer to address this issue as the reinventing process of informal sectors. The idea comes from a concept that the sectors are socially acceptable, involving values, norms, and taken for granted. While scholars often contested innovation and disruption, beating the incumbents, our study exerts a different point of view. Startups leveraging the informal economy, at the same time, put an attempt on nurturing an immature and inefficient market. The contestation is not about nascent business versus incumbents, instead of new players beating information asymmetry. The study confirms that platforms play several roles, such as bridging, educating, and intermediating, to leverage the opportunity of the grassroots problems.

Second, the findings of the study supported the argument about how entrepreneurs should be admitted as contributors in retransforming the regulation in the market, instead of the rule breaker. It emphasized the institutional entrepreneurship theory, where entrepreneurs possessed the ability to change what has been written by the formal institution to a new regime. Indeed, the process of transforming an institutional is a challenging task as platforms must encounter a robust regime, which is such a two-faced party. On the one hand, the government maximizes its authority to give support for nascent business, giving them legal protection and a better position. On the other hand, when being contested with tax and pricing systems, regulation is seen as constraints and hurdles for startups to adequately performing the business. Uniquely, entrepreneurs tend to obtain legitimacy from society, to be generally acceptable, rather than being legally admitted by the government. The reason is crystal clear because the platform had filled the gaps, the issues that have been so long becoming a phantom. Once a new business gained its moral legitimacy, the market always shows its interest to be on the side that benefits more; in this case, platforms win against the regulation.

While the interviews with the respondents confirmed how they were able to optimize technology innovation in offering services and products, there are several limitations. First, the researchers analyzed

the industry-level, in which each sector is particularly unique, and the level of regulation enforcement is different. Thus, it could not capture the institutionalization at a firm level. It would be more interesting to separate the sector, for instance, financial technology, since its industry was found to be highly regulated. The level of law enforcement probably would impact on the compliance and the method of establishing a platform. Thus, future research may take this shortage to investigate the different levels of enforcement affecting the behavior of entrepreneurs.

Second, although this research has illustrated how entrepreneurs in digital platforms encountered regulation uncertainty and its dynamics with authorities, the result could not expose the changes in the regulation itself. There should have been attempts to identify the nature of the regulations system in Indonesia in depth so that the study could take comprehensive pictures of the startup ecosystem in Indonesia. Moreover, the regime, according to the interviewees, is welcomed to any innovation on the digital platforms. Future research is suggested to explore more in-depth on governments' perspectives about the rising of digital startups.

Finally, since the term social impact is often brought up during the interviews, studying how startups would legitimize its business by offering social impact is an exciting part of further study. Social impact, however, remains abstract; hence, its measurability is a question. The next study could also focus on this issue to cover why becoming a business with social impact as a core goal is salient in an emerging market. By figuring out the issue, more comprehensive literature on entrepreneurship and institutions would rigor the existing literature.

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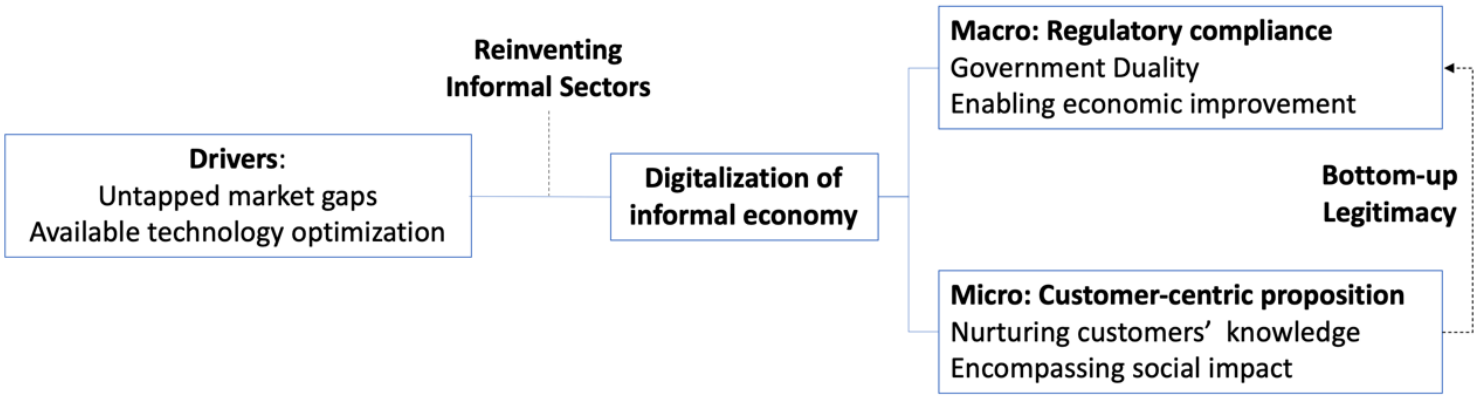
Table 1 List of Respondents

Respondents	Business sectors	Year of Establishment	Position	Interview Duration
Interview-1	Microlending	2014	Founder	65 min
Interview-2	Transportation	2010	Data scientist	35 min
Interview-3	E-commerce	2010	Head of product	65 min
Interview-4	Crowdfunding	2018	Founder	65 min
Interview-5	Technology	2014	Founder	75 min
Interview-6	Incubator	2014	Founder	15 min
Interview-7	Financial service	2017	Founder	60 min
Interview-8	Online procurement	2017	product manager	60 min
Interview-9	Education	2017	CBO	60 min
Interview-10	Health	2017	CTO	70 min
Interview-11	Transportation	2010	Founder	35 min
Interview-12	Transportation	2010	VP	60 min
Interview-13	Agriculture	2016	Founder	60 min
Interview-14	Transportation	2018	CEO	75 min
Interview-15	Incubator	2013	Coordinator	60 min

Graph 1 Conceptual Framework



Expanding the Dynamic Capabilities Framework: A Case Study of Chengdu Ito-Yokado

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Expanding the Dynamic Capabilities Framework: A Case Study of Chengdu Ito-Yokado

ABSTRACT

We proposed an analytical framework from the perspective of dynamic capabilities (DC) to examine how a Japanese retail company had obtained and sustained competitive advantages in an overseas market. We expanded the DC framework of Teece (2007, 2014a) to analyze the case of Chengdu Ito-Yokado (CIY), particularly on how DC factors had influenced CIY's business model (BM) from the introduction to growth stages, and to explore the relationship among those factors. We confirmed that the differentiated BM was due to DC which (re)generated BM's transformation in sustaining the competitive advantage. Therefore, we have validated the preliminary analytical framework through the case study.

INTRODUCTION

The business environment of Japanese firms has been changing drastically in recent years as a result of technological innovations and market globalization. As the Chinese and other Asian markets have been enjoying economic growth, Japanese companies pivoted from manufacturing to the consumption market to remain sustainable, thus creating the need to expand sales and generate profits from these emerging markets in the region.

In this paper, we argue that utilizing the perspective of dynamic capabilities (hereafter DC) may prove to be a helpful framework for case study analysis. Teece, Pisano and Shuen (1997) have suggested that "building a dynamic view of the business enterprise enhances the probability of establishing an acceptable descriptive theory of strategy that can assist practitioners in the building of long-run advantage and competitive flexibility" (1997: 513), and that "strategic theory" endeavors to explain "firm-level success and failure" (1997: 509). Teece proposed "dynamic capabilities framework" (2007, 2014a) in his discussions of survival and growth of multi-national enterprises. The framework, however, has a high level of abstraction to be used practically for analyzing real-world businesses. It is essential to develop a DC framework that requires deductive and inductive reasoning based on introspection and observation and possibly a theory of value creation and appropriation by firms (Teece, 2014b: 335). Furthermore, research studies on the global strategies of Japanese companies from the DC perspective are scarce.

As a contribution of this paper, we have expanded Teece's DC framework (2007, 2014a) to develop an analytical framework. We aimed to demonstrate the validity of the framework by analyzing the case of a Japanese retail company that obtained and sustained competitive advantages in an overseas market.

REVIEW OF PREVIOUS STUDIES

After Teece et al. (1997) defined their concept of DC, other versions have been offered (e.g., Eisenhardt & Martin, 2000; Helfat et al., 2007; Wang & Ahmed, 2007; Winter, 2003; Zahra, Sapienza, & Davidson, 2006). One influential definition of DC is, for example, intentional resource-based conversions of corporations, as provided by Helfat et al. (2007) and Ambrosini & Bowman (2009). However, Teece (2007) was the first to propose a DC framework which recognizes three classes of capabilities (sensing, seizing, and transforming) to explain the sources of enterprise-level competitive advantage over time. According to this concept, once a new opportunity, whether a technological or market opportunity, is sensed, this must be promptly addressed through new products, processes, or services. Thus, a key to sustained profitable growth is the ability to recombine and to reconfigure assets and organizational structures. A business model, then, is a plan for the organizational and financial 'architecture' of a business (Teece, 2007: 1329), and the capacity of an enterprise to create, adjust, hone, and, if necessary, replace business models is fundamental to DC (Teece, 2007: 1330).

The concept of a business model (hereafter BM) has been defined by many researchers (e.g., Amit & Zott, 2001; Chesbrough & Rosenbloom, 2002; Johnson, Christensen & Kagermann, 2008; Magretta, 2002; Morris, Schindehutte & Allen, 2005; Teece, 2010; Timmers, 1998). Most of their works addressed BM components, a shared commonality among them. Schön (2012) suggested three components: value proposition, revenue model, and cost model. Companies

need to assess carefully how important a specific module is for differentiation before they endeavor to make it available internally or especially externally. Furthermore, partner networks need to be managed more carefully to ensure protection of competitive advantage (Schön, 2012: 77).

Teece (2014a: 29) suggested that the growth and survival of a multi-national enterprise (hereafter MNE) is not just about adapting to market failures; it is also about creating and deploying VRIN resources[1] as well as signature processes and distinct business models to enable excellence in meeting (or possibly even modifying) market demand in ways that are hard for competitors to imitate. This, in turn, may lead the MNE to engage in technology and capability transfer, and possibly even to the strengthening of complementors and suppliers. Developing distinct business models, therefore, is the key to entering and penetrating a new market. Teece (2014a: 334) suggested that the DC framework must be coupled with effective strategizing to bring about competitive advantage as dynamic capabilities do not operate alone. Furthermore, strategy, capabilities, and the business environment are co-evolving (Teece, 2014b: 341). Teece, however, failed to specify the components of strategy, the definition of which he simply quoted from Rumelt (2011: 6); therefore, there is a need for supplementation.

Teece (2014a) made efforts to incorporate to the theory of the MNE some of the recent developments in the field of strategic management, particularly those relating to enterprise capabilities. However, more studies are still needed to supplement current literature in

international business and the theory of the MNE. Hymaer (1976) focused on the process of companies' foreign market entries but did not discuss those firms' strategies after entry. Likewise, even while Prahalad and Doz (1987) have categorized global businesses on two directional axes in a graph (global integration and local adaptation), they did not explore the strategies of firms and the resource base that enables actualization. We, therefore, believe that a case analysis utilizing DC perspectives has the potential to complement multinational business theories.

In our view, the DC framework proposed by Teece (2007, 2014a) must be supplemented in the strategy component. However, we found that empirical studies to support the framework are currently limited, especially with the few number of case studies of Japanese companies entering the overseas market. Our study attempts to expand the DC framework by supplementing the strategy component and to demonstrate the validity of the analytical framework we developed through a case study of a Japanese retail company entering a new overseas market.

RESEARCH METHOD

We conducted a hypothesis-generating type of case study by analyzing the case of Chengdu Ito-Yokado Co. Ltd. (hereafter CIY) based on Eisenhardt (1989). First, we developed the preliminary framework based on previous studies. Next, using the preliminary framework, we analyzed how CIY had obtained and sustained over time its competitive advantage in the

overseas market. Eisenhardt (1989; 536) stated that *a priori* specification of constructs can help shape the initial design of theory-building research, thus a research problem should be formulated first and possibly some potentially important variables with some reference to extant literature specified next. Although Eisenhardt (1989: 536) suggested to avoid thinking about specific relationships between variables and theories as much as possible, especially at the outset of the process, we attempted to apply this advice to developing our analytical framework consisting of several inter-related concepts. A framework, similar to a model, is usually an abstract representation of reality, and it endeavors to identify classes of relevant variables and their interrelationships. Teece (2007: 1320) explained, though, that a framework is less rigorous than a model as it is sometimes agnostic about the particular form of the theoretical relationships that may exist.

Preliminary Framework

Figure 1 shows the relationship among the constructs, where companies take advantage of opportunities and start new businesses by developing new BMs utilizing the resources and capabilities of existing businesses. After market entry, conditions such as competitions and market demand change; accordingly, companies should review and revise (adjust, hone, and replace) the BM in order to adapt to the new business environment. We described DC as the firms' capability to revise (i.e., adjust, hone, and replace) as well as to create a BM.

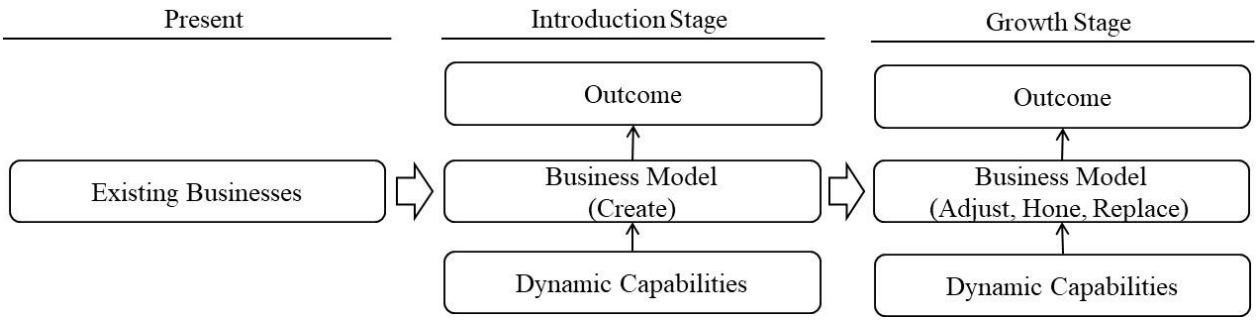

Figure 1. Passage of Time and the Relationship between BM and DC

Figure 2 shows a preliminary framework for the case analysis. As depicted in the framework, "Business Model" is a direct factor affecting the "Outcomes"; "Dynamic Capabilities" are the abilities to create and re-create the "Business Model"; and "External Environment" influences both the "Business Model" and "Outcomes" as a moderating variable. "Outcomes" are either one of the following: Sustained Competitive Advantage, Temporary Competitive Advantage, Competitive Parity, or Failure (Ambrosini and Bowman, 2009: 43). "Business Model" has three components: Value Proposition, Revenue Model, and Cost Model (Schön, 2012: 75), while "Dynamic Capabilities" is divided into three sub-capabilities: Sense, Seize, and Transform (Teece, 2007: 1342). Schön (2012: 75) further specified components of 'Value Proposition' as: Product & Service, Customer Needs, and Geography; those of 'Revenue Model' as: Pricing Logic, Channels, and Customer Interaction; and those of 'Cost Model' as: Core Assets & Capabilities, Core Activities, and Partner Network.

In addition, the framework also takes account of chronological changes, specifically referring to changes occurring from the "Introduction Stage" to the "Growth Stage." Companies must modify or reconstruct their "Business Model" based on the "Outcomes" to survive in the market (as expressed by the solid line from "Outcomes" to "Dynamic Capabilities" in Figure 2 implying that "Outcomes" influence "Dynamic Capabilities"). The company's "Business Model" is modified or reconstructed by its "Dynamic Capabilities". On the other hand, a company's "Outcomes" sometimes influence its "External Environment," the relationship of which is expressed by the dashed line from "Outcomes" to "External Environment." The dashed line shows that while there are cases that a company's "Outcomes" influence its "External Environment," it is not always so. These two feedback lines allow chronological analysis of the case.

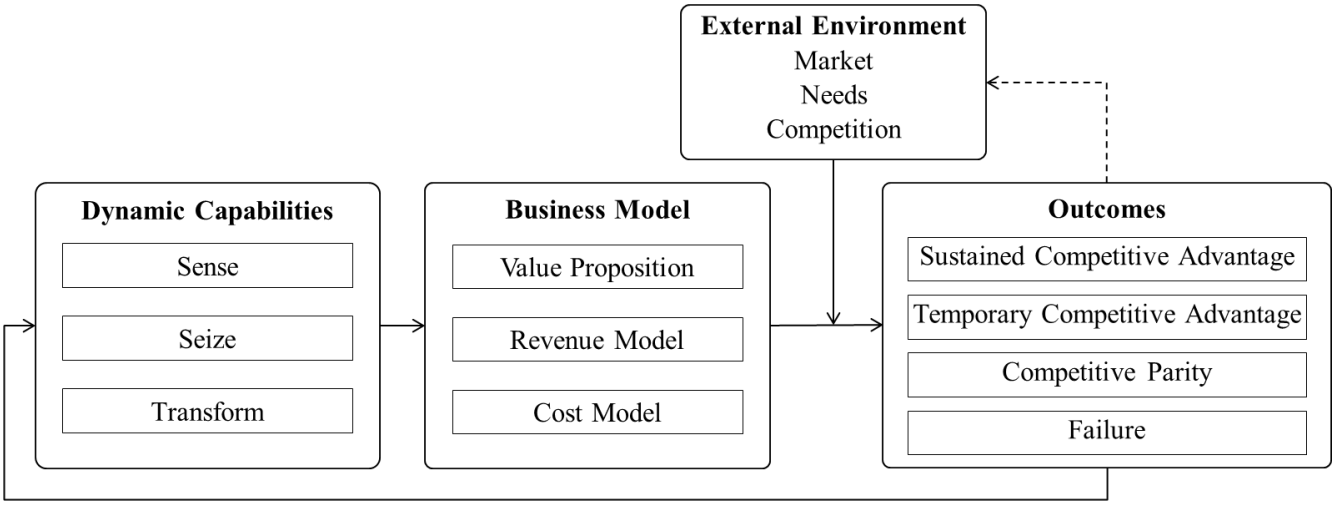

Figure 2. Preliminary Framework

Case Description and Analytical Method

In this paper, we selected Japanese international retailer (Ito-Yokado Co., Ltd.), which was established in Chengdu (hence, Chengdu Ito-Yokado; hereafter CIY) in 1997, for our case study analysis because the company has experienced high growth. In analyzing the case of CIY, we first defined the scope of the "Introduction Stage" as the period from 1997 to 1999 (3 years), and the "Growth Stage" from 2000 to 2006 (7 years). Second, BM and its change were evaluated based on the components identified by Schön (2012: 75) for 'Value Proposition' which are: Product & Service, Customer Needs, and Geography. Third, in assessing DC, we used the concepts of "technical fitness" and "evolutionary fitness," as proposed by Helfat et al. (2007). The latter refers to how well a dynamic capability enables an organization to make a living by creating, extending, or modifying its resource base. In this paper, we evaluated the outcomes of the business as one of the following: sustained competitive advantage, temporary competitive advantage, competitive parity, and failure, based on its performance (sales growth and profit). On the other hand, the former measures how well the new product performs its intended function. We assessed the relationship and importance among the factors in each stage of the case analysis.

We used interview data as the primary data for the analysis and secondary data as well, including investor relations (IR) information, annual reports, and news releases. First, we analyzed the important factors and their relationships in the introduction and growth stages

based on the framework. Second, we interviewed and requested relevant people from the company to evaluate the results independently.[2] Lastly, all the data were compiled and summarized, maintaining objectivity as much as possible.

CASE ANALYSIS

Based on the components of each of the variables, namely: "Outcomes," "Business Model," "Dynamic Capabilities," and "External Environment" in the preliminary framework, important factors and their changes from the introductory to growth stages have been analyzed.

Outcomes

We used two criteria based on the concept of "evolutionary fitness" (Helfat et al., 2007) to evaluate the "Outcomes" in each of the stages: survival (if it earned positive profits) and growth (if it earned positive CAGR[3]). The "Introduction Stage" resulted in 'competitive parity' because it earned negative profit while enjoying positive CAGR. CIY's sales revenue in the first operating year, in 1997, was 18 Million RMB, and it recorded a net loss of 8 Million RMB. Its CAGR till 1999 was 354%; however, its accumulated loss was 117 Million RMB for the same period.

The "Growth Stage" resulted in 'sustainable competitive advantage' because it earned positive profit and positive CAGR. CIY's sales revenue in 2000 was 513 Million RMB, and it

recorded a net profit of 5 Million RMB. It was the first profit for the company and it has continued making net profit since then (e.g., net profit rate in 2006 was 7%).

Business Model

BM analysis of CIY based on the preliminary framework (Figure 2) is summarized in Table 1. CIY's outlet was characterized as a combination of a general merchandise store (GMS) and department store to fit to the Chinese market, with categorized products displayed on each floor and some floors had shop-in-shops (SISs). CIY's BM was transformed from the "Introduction Stage" to the "Growth Stage" based on their learning experiences.

Considering "Value Proposition" under "Business Model", CIY introduced a high level of customer service to differentiate the company from others. CIY initially introduced Japanese-style products such as packed perishables; slow-moving items were replaced in the food section resulting in a total revamp of merchandise in half a year. CIY eventually started offering more attractive products in the "Growth Stage" because local business partners (suppliers) came to trust CIY as it strictly followed contract terms such as payments. When CIY opened its second outlet in 2003, it successfully transferred operational knowhow developed in the first outlet and hence, overachieved its first-year's sales targets. With regards to the "Revenue Model," it was a trial-and-error process for CIY to be accepted by the local market. In the "Introduction Stage," CIY also decided to add Western-themed events such as Christmas and Valentine's Day to attract

sales. Although there was no direct connection to financial results initially, local customers enjoyed the new experiences. CIY transferred operational knowhow developed in Japan such as open displays and newspaper inserts. In the "Growth Stage," CIY continued holding sales events which gradually correlated with sales results. One of the most successful promotional campaign items was a *futon* set which was a good learning experience for CIY. They discovered that attractive items can be sold well. CIY started providing products with better quality such as organic vegetables. It also introduced private apparel brands and enhanced Japanese makers' products utilizing its group resources as well as locally developed supply networks.

As for "Cost Model," CIY initially transferred operational knowhow developed in Japan such as unit control system and employee training among others, which were improved through the daily operations. In the "Growth Stage," news of the excellent CIY's employee training spread and SISs started sending their employees to CIY to be trained. CIY's negotiation power had become strong enough to charge SISs for training fees, and their advice to not transfer store staff for at least half a year after training was being heeded.

Table 1. Business Model Analysis

	Introduction Stage (1997～1999)	Growth Stage (2000～2006)
Value Proposition		
Product & Service	GMS + Department Store style (introduction of SIS) Abundant product range Packed perishables (J-style) Replace slow-moving products	Further developed: more attractive product range due to local buyers and relationships developed with suppliers Propose products with better quality, e.g. Organic vegetables Propose more Japanese cuisine, e.g. onigiri, natto
Customer Needs	Affordable items & something new	Value for money (based on improved living standards)
Geography	One outlet in Chengdu City	Additional outlet in the area in 2003 - transfer operational knowhow - dominant strategy (J-style)
Revenue Model		
Pricing Logic	Equivalent with other shops in the same area	Pursue "value-for-money," proposing better quality of products
Channels	Open display (J-style) Leaflet ads (J-style) Self-service at food section and consultative sales at SISs Clean and organized retail environment (J-style)	Further improved: higher quality through employee trainings Introduction of apparel Private Brand (PB) Introduction of demonstration sales Enhance Japanese makers' products
Customer Interaction	High-level customer service (J-style) No discount offers on haggling (J-style) Frequent sales events Conversation meetings with customers (J-style) Opinion box (J-style)	Further improved: higher quality through employee trainings
Cost Model		
Core Assets & Capabilities	Retail operation developed in Japan, e.g. unit control system	Further improved: higher quality through employee trainings Transfer operational knowhow to the second outlet/branch
Core Activities	Introduction of foreign culture through sales events Japanese-level of customer service and employee trainings to accomplish it	Further improved: higher quality through employee trainings and empowerment
Partner Network	Through Ito-Yokado Company's network Non-consignment deal (J-style)	Further improved: expand partner network based on the reputation in the market Develop local buyers Charge SISs education fees

Dynamic Capabilities

DC analysis of CIY based on the preliminary framework (Figure 2) is summarized in Table 2. CIY created a BM designed to transfer operational capabilities developed in the Japanese market to the Chinese market in the "Introduction Stage" to meet government expectations of modernizing the domestic distribution system in China. The processes undertaken by CIY consisted of gathering information from customers through home visits and opinion boxes as well as from employees through informal meetings. "Sense" was initially the key for CIY, however this had limitations as market conditions were totally different and there were so many uncertainties. The socialist distribution mentality still pervaded in the local Chinese people, and it was not customary for staff manning the shops to thank customers (Yutani, 2011). CIY, therefore, had to start from training local staff members to bow (a sign of greeting and respect) and to verbally greet customers properly. In the "Growth Stage", the company not only enriched its product range by expanding and reinforcing local supplier networks but also introduced private-brand items and Japanese products by fully utilizing Ito-Yokado Company's group resources ("Seize"). CIY's management team spent considerable time and efforts at educating local employees and gradually empowered them. Operations continued to improve by scaffolding day-to-day knowhow through the Plan-Do-Check-Action (PDCA) cycle which facilitated organizational learning ("Transform").

Table 2. DC Analysis

	Introduction Stage (1997～1999)	Growth Stage (2000～2006)
Sense	Capability to utilize suppliers - Develop relationship with suppliers - Reconciling product-range with SISs	
	Feedback from customers (e.g. visit local houses) and from employees (e.g. conversation meetings, opinion boxes).	Feedback from customers and from employees
Seize	Capability to propose products - Develop supply chain and promote products	
	Leadership by the Japanese management team and continuous training to local employees.	Leadership by the Japanese management team and continuous training to local employees.
		Expand and enhance business networks to enrich product range Utilize Ito-Yokado's group resources and introduce Private Brands (PB)
Transform		Decentralized decision making - Develop local employees and empower them
		Capability to integrate the collective knowledge and learning - Accumulate the operating knowhow with the daily P-D-C-A cycle.

External Environment

In CIY's case, the "Outcomes" had influenced the "External Environment" with positive effects to the company's business operations. In the "Growth Stage," CIY showed strong performance in Chengdu despite competitors' new entry in the area. The increase in consumer traffic only reinforced the fact that CIY's merchandise and services stood out as shown by CIY's persistent success in terms of customer patronage. As a result, CIY continued to be in the number one spot when it comes to sales per square meter even while the area had become very

competitive.

DISCUSSION

In evaluating the preliminary framework through the results of the case analysis, we have found how CIY obtained and sustained the competitive advantage. By summarizing the relationship between the DC and BM factors in the introduction and growth stages, we intended to explain the validity of the framework we developed.

On the first point, Ito-Yokado entered the Chinese market by creating a new BM which mainly involves transferring the capabilities developed in the Japanese market. The company, however, initially struggled because market conditions were totally different from that of Japan and there were inadequate procurement networks. But then, CIY successfully gained competitive advantage and was able to sustain it by adjusting its BM based on its outcomes (experiences of failures as well as successes). On the second point, important factors of DC and BM as well as their relationship were discussed in each stage. In the Introductory Stage, the company's capability to utilize suppliers and to understand customer needs ("Sense" sub-capability of DC) increased the "Value Proposition" of BM through products and services. Its capability to propose products ("Seize" sub-capability of DC) enhanced the "Revenue Model" of BM through establishing appropriate distribution channels and promoting public relations. Leadership ("Transform" sub-capability of DC) reinforced the "Cost Model" of BM through customer

service that was comparable to good service as in Japan, and employee trainings (in Core Activities). In the Growth Stage, the company's capability to understand customer needs ("Sense") increased the "Value Proposition" of BM through products and services. Leadership ("Seize") reinforced the "Cost Model" of BM through high-level customer service and employee trainings (in Core Activities). Its capability to develop the business ecological system enhanced the "Cost Model" through the partner networks by expanding business partners and strengthening relations with them. Its capability to adapt to the environment ("Transform") reinforced the "Cost Model" of BM through empowering local employees (in Core Activities). Their capability to integrate the collective knowledge and learning reinforced the "Cost Model" of BM through transferring operational knowhow to the second outlet or branch (in Core Assets and Capabilities).

From the summary, we can deduce that DC factors have impacted BM factors. Our preliminary framework allowed systematic analysis for it defined the relationship among factors in "DC - BM - (External Environment) - Outcomes." We can confidently claim that the analysis was conducted systematically due to the following reasons: (1) the analysis was sequential from entry into the new market to growth of the business, and (2) it identified the relationship of key success factors among components: Outcomes, External Environment, BM, and DC. While Teece (2014b: 341) stated that strategy, capabilities, and the business environment co-evolve, he failed to specify contents of strategy. Our preliminary framework supplemented Teece's DC

framework by (1) introducing BM, which includes strategy, (2) introducing the influence of the external environment, and (3) considering the relationship among factors of DC and those of BM.[4] As a result, we have confirmed that our preliminary framework, which was expanded from Teece's DC framework, is valid for case analysis.

In this paper, we have identified our three main contributions in developing the DC theory. Although Teece (2014) did not specify the contents of strategy in its DC framework, we added BM and considered the relationship among the factors. Second, we introduced measurement scales such as evolutionary fitness and technical fitness (Helfat et al., 2007) to assess company performance. Third, even though we consider this study an empirical one to support the DC framework, we believe it has practical contributions as well. An analytical framework to examine how a company obtained and sustained a competitive advantage in a foreign market has been proposed. When a company tries to enter a new market or start a new business, it needs to consider many factors. While the existing theories are narrow in scope, the framework we proposed allows systematic analysis by extracting important factors.

CONCLUSION

In this paper, we attempted to challenge ourselves by analyzing the capability development of a Japanese company in an overseas market. Current experimental studies on DC emphasized that there is a need to investigate processes of creation and evolution over long periods of time

and to conduct more focused studies of dynamic capabilities (Easterby-Smith, Lyles, & Peteraf, 2009). We hope that this study has partly contributed to solve such issues. We have proposed a DC framework leading towards theory development by identifying a moderate frame of factors that have causal relationship. We have used such an analytical framework to apply to the case of CIY enabling us to identify the BM and DC sequentially.

On the limitations of this study and suggestions for future research, first of all, we only considered the factors included in the analytical framework and excluded other factors such as regional and industrial characteristics (e.g., retail marketing). Second, while we tried to collect as much information as possible, primary as well as secondary, there was a limit to collecting internal information. Third, since it is a single case study, we would need more cases to analyze to be able to firmly generalize the hypotheses. We intend to do more case studies on the entry of other Japanese companies in the international market to clearly establish methods and perspectives for analyzing the relationship between DC and BM and to contribute to the development of DC theories in the future.

NOTES

[1] VRIN is the key criteria defined by Barney (1991) for resources that can support durable competitive advantage: Valuable, Rare, Imperfectly imitable, and Non-substitutable.

[2] Interviews with one Japanese and two Chinese managers at CIY were conducted during the

period from April 2018 to March 2019. After introducing the purpose of the research, semi-structured interview was conducted based on an evaluation sheet, which includes BM and DC factors.

[3] Compound Average Growth Rate

[4] While the dynamic capabilities framework of Teece (2014a) included (generic) resources and (ordinary) capability, our preliminary framework included (generic) resources and (ordinary) capability as factors of the business model.

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Market Valuation of Corporate Technological Assets: The Case of Japan's Institutional Adaptability

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Abstract

This paper examines the market valuation of corporate technological assets in Japan. It contributes to the debate about the perceived legacy of institutions as profit-related pressures accumulate. Having analyzed the panel data-set consisting of 684 companies, each spanning over 19 years (from 1998 till 2016), this paper has found out that Japan's "routinized" model is compatible with the marketability of its corporate innovations. Against the dominant role of research and development (R&D), especially for the drugs and chemicals, Tokyo Stock Exchange consistently rewards highly-cited patents filed by machinery and electric equipment companies. At the same time, with the exception of chemicals, higher R&D productivity measured as "patents per one yen spent on R&D" is not appreciated by investors. This suggests that higher patenting propensity alone is not a credible enough signal of corporate innovativeness. Another noteworthy finding is the U-shape relationship existing between firm's age and Tobin's q. This and other significant nonlinear patterns existing between explanatory and response variables are identified via the application of the Generalized Additive Models (GAMs) that helped to fine-tune the initial linear predictions.

***Keywords**: Patents; R&D; Innovations; Tobin's q; Generalized additive models.*

Declarations

- **Conflicts of interest/Competing interests**. None.
- **Code availability**. The R code is available upon request.

1 Introduction

1.1 Background

The resource-based view (RBV) perceives a firm as a bundle of assets, where management is entitled with the task of maximizing their potential (Grant, 1996). While this definition is subject to multiple interpretations, current article is not limited to the transaction-cost view, according to which firm's existence is mainly justified by optimization of exchange between actors operating in the open market (Williamson, 1979). Rather than solely defining firm's rationale as being a market facilitator, it adopts a broader teleological view of Kogut & Zander (1992) (also see Conner & Prahalad (1996)) who suggest that "organizations are social communities in which individual and social expertise is transformed into economically useful products and services" (p. 384). This view reciprocates the stakeholder model of corporate governance prevalent, among others, in Japan. For this model, maximization of stock-value is only one among the multiple priorities of a listed company. Rather than opportunistically competing with each other, corporate stakeholders are embedded into a system of long-term commitments, relational finance, and governmental oversight resulting in a specific mix of competition and cooperation (Dore, 2000). When managerial well-being is inseparable from sustainable corporate growth, CEOs see more reasons to strategically invest in research and development (R&D) rather than solely concentrate on annual returns.

Ideally, firm's assets should, firstly, enhance productivity, leading to greater marginal profits, and, secondly, be idiosyncratic, meaning that rivals would find it difficult to recreate them (Bates & Flynn, 1995). The first criteria is mostly related to the *explicit* knowledge that can be transferred between companies ("knowing-what" type). On the other hand, it would be impossible to fulfill the second criteria without the *tacit* organization-specific structures ("knowing-how" type).

Regardless of the type of competitive advantage, the attribute that enables corporate assets to stand out is knowledge. That is why a substantial stream of managerial scholarship presents it as the most important strategic resource and comes up with the "knowledge-based view" of a company (Grant, 1996). While innovations can take a shape of a single technological breakthrough, this does not automatically guarantee the translation of knowledge assets into economic value. Profit-yielding innovative capacity that allows companies to achieve sustainable competitive advantage is the product of strategic utilization of tangible and intangible resources.

The transformative process that is key to producing innovations can take two paths: revolutionary and evolutionary. While the former one is mostly inherent to the so-called "liberal market economies" (LMEs) that include the U.S. and the U.K., the latter one characterizes such "coordinated market economies" (CMEs) as Japan and the number of countries located in the continental Europe (Hall & Soskice, 2001). Lechevalier, Nishimura, & Storz (2014) argue that while LMEs provide favorable conditions for an *entrepreneurial* innovation regime, CMEs favor *intrapreneurial* features. As opposed to the turbulent nature of entrepreneurship, intrapreneurial type of innovation can be described as stable and cumulative. Japanese economy that possess a high degree of industrial coordination sustained by large companies has clearly defined intrapreneurial traits (Flynn, 1985). Its "routinized" innovation model is characterized by well-established R&D departments, low employment turnover rates and incrementally accumulated firm-specific knowledge (Kleinknecht, van Schaik, & Zhou, 2014). These features have been further reinforced by protectionist measures, vast internal markets and oligopolistic industrial structures, whereby key players do not face immediate competitive threats. According to the *institution-based view* of business strategy, in such an environment, where industrial coordination is at least as important as market competition, institutions should be put to an academic forefront, rather than just be referred to as a "background" factor (Peng, Sun, Pinkham, & Chen, 2009).

Institutions, however, are prone to change, largely due to burgeoning market pressures. During the last three decades Japan's pronounced institutional traits have undergone piecemeal yet noticeable transformations. On a general level, the legislation promoting market competition has been toughened thanks to the 2005 amendment of Japan's Anti-Monopoly Act (Goto, 2009). Entry barriers were substantially lowered for industries such as pharmaceuticals during the late-1990s, which paved a path to a more intensive industrial competition (Mahlich, 2010). Similar processes have been observed in Japan's electric sector since mid-1990s, leading to a higher R&D efficiency as well as more intensive patenting (Sturgeon, 2006; Wang & Mogi, 2017).

These developments invited further attention to changing market perceptions of corporate innovations amid the ongoing balance shift from the institutional towards a more market-based industrial model.

1.2 Marginal contribution

The research on the market valuation of patents dates back to 1960-70s (Scherer, 1965; Schmookler, 2013), while the first studies using the firm-level data appeared in 1980s (Griliches, 1984). However, as most of the hitherto research on the market perception of corporate innovations has concentrated on the U.S. and Western Europe, not much attention has been paid to Japan. It matters for the following reasons. Firstly, Japan has a third-largest market capitalization for listed companies. Secondly, from a comparative perspective, Japanese companies stand out for placing comparatively high value into patenting their inventions. In fact, Cohen, Goto, Nagata, Nelson, & Walsh (2002) argue that the capacity to patent innovations is akin the transmission of a message about the efficient usage of R&D funds among companies occupying a similar niche. Finally, alongside with the growing market for corporate control, Japan has distinct institutional arrangements encapsulated by the pertaining legacy of relational corporate finance and governance. Hence, it presents a rich material for scholars focusing on interaction between markets and institutions.[1]

The pioneering research on market perception of corporate technological assets in Japan was performed by Haneda & Odagiri (1998). Their analysis relies on the sample of pharmaceutical, chemical, and electric equipment firms. There exist three major limitations pertaining to this study. Firstly (1), it operates with the small sample size of only 90 companies. Since the authors include three industries ("Drugs," "Chemicals" and "Electrical") into their analysis, this arouses doubts about the validity of industrial representation. The second (2) issue follows from the one above. Although the most influential relevant articles (Hall, Jaffe, & Trajtenberg, 2005: 26) use random-effects models with an optional addition of industry-level fixed effects, Haneda & Odagiri prefer the firm-wise fixed effects. The last (3) problem is that the authors do not control for the quality of patents' stock.[2]

The third aspect was taken care of by Nakanishi & Yamada (2007). Another advantage of their article is that it focuses on successful patent applications. At the same time, the size of the data-set hardly increased (only 101 companies distributed across drugs, chemicals, electrical machinery, precision instruments and transportation equipment industries), which again raises the concerns about representativeness. Touching upon details, authors do not explicitly discuss the values of obsolescence rates, which is key to computing knowledge stocks.

The latter problem was addressed in the article of Ishii (2010). He explicitly mentions the adoption of the depreciation rate of 15% per year for the patents' and citations' stocks. The main confusion that the article causes is related to the choice of the "value added" instead of Tobin's q as a dependent variable. Despite choosing the accounting explanatory metric, the author does not implement lags for independent variables.

The latest currently available study on this topic with the focus on Japan belongs to Mahlich (2010). He concentrates on the impact of technological innovations on corporate performance within the Japanese pharmaceutical industry. His approach seems problematic for the same reasons discussed in regard to the article of Ishii (2010). I.e., his choice of the "profit on total assets" as a dependent variable appears arbitrary. In addition to this, the analyzed sample consists of 34 Japanese pharmaceutical companies, which is not enough to come up with industry-specific generalizations. Lastly, the author justifies the choice of the depreciation rate for patents' stock in a following way: "We assume δ [obsolescence rate] to be 20% which is between the 13.5% used by Haneda and Odagiri (1998) and the 25% estimated by Pakes and Shankerman (1984)." Such an approach based on averaging the rates from the two studies separated by 14 years and concerned with different countries appears to be problematic.

As we can see from the summary of literature pertaining to the case of Japan, there has not been a single comprehensive study answering the question of market valuation of corporate technological assets. Further-

[1] Back in the day, when most of the research on the market valuation of intangible assets was based on the U.S. data, Hall & Oriani (2006) made a claim of conducting the first study on the continental countries of the European Union.

[2] On p. 314 the authors admit that "the *quality* of patents more than the *number* of patents may well be a better measure of the firm's technological assets." However, they do not mention the obvious possible solution, which is to incorporate patent citations.

more, due to the previously existing data limitations, the number of observations was much lower compared to the studies centered on the U.S. or the European cases.

2 Variables and Hypotheses

There exist various ways to measure the perceived impact of innovative activities. Although it may seem justified to relate the innovative output to corporate financial profitability, in practice, it takes an indefinite number of years till a patenting activity can yield profits (Czarnitzki, Hall, & Oriani, 2006). My focus reverberates with the problem formulated by Hall, Jaffe, & Trajtenberg (2005): "how does innovative activity translate into market value, and what aspects of the underlying process are captured by the empirical measures available?" Following the established line of research originated in Griliches (1981), the current paper concentrates on the issue of market valuation operationalized via the *Tobin's q* (market-to-book ratio) metric.

"Tobin's q [...] is the ratio of the firm's market value to tangible assets. Firm's market value is defined as the sum of market capitalization (price multiplied by the number of outstanding shares at the end of the year) and non current liabilities plus net current liabilities less inventories" (Hall, Thoma, & Torrisi, 2007: 12). On one hand, the main limitation of using Tobin's q relates to market volatility, whereby investors' concerns are not necessarily related to firm's physical assets. The main advantage of using this parameter, on the other hand, is the fact that market does not take a long time to evaluate technological capabilities of companies. Hence, this strategy helps a researcher to circumvent the data loss due to the otherwise lagged dependent variable. Furthermore, Tobin's q is a forward-looking metric that incorporates market expectations about strategic R&D spending as well as the projections about the quality of other knowledge assets (He & Wang, 2009).

The routinized technological model has traditionally constituted the competitive advantage of Japanese companies. It has epitomized the firm-specific knowledge that represents the *input* aspect of innovative activity. In terms of a possible proxy, institutional side of Japan's technological progress can be expressed as a piecemeal deployment of R&D assets. According to Goto (2009), large established companies that have benefited most from oligopolistic industrial structures are the ones that can afford substantial R&D expenditures thanks to the hoarded capital. As such, higher R&D spending indicates that a company makes strategic investments, which signals about its long-term credibility. Hence, my first hypothesis sounds as follows:

> ***Hypothesis 1***
>
> Tokyo Stock Exchange positively evaluates companies with higher R&D expenditures. This represents the "institutional" aspect of corporate innovations.

While R&D is a strategic driver of innovations, one also needs to account for its effectiveness. In other words, investors need to be sure that R&D, which represents the input-aspect of innovations, bears fruit. In order to operationalize the R&D efficiency, scholars suggest using the *patent-yield* variable obtained via dividing patents' stock by R&D stock (Hall, Jaffe, & Trajtenberg, 2005: 27). This variable can be described as *patents per one Japanese yen spent on R&D*. This is the most widely-used quantifiable *output* metrics of technological progress. Here, the incorporation of patents points at *corporate competitiveness* that can both be the result of firm-specific and transferable assets. Additionally, the mere scope of technological progress can be proxied via "Patents' stock weighted by Assets," which I use as an auxiliary index widely employed in the related literature.

It may seem that by knowing the "input" and the "output" estimations pertaining to technological innovations we can evaluate firm's intangible assets. However, there is much more to add to this story. For example, Griliches (1998) and Hall, Jaffe, & Trajtenberg (2005) present patents as merely quantitative metrics for inventions that do not play an explicit economic role *per se*.[3] Patents rather contribute to an unobservable

[3]While Griliches (1998) specifically refers to the limits of patent *applications* data, current research takes into account only *granted patents* to partially mitigate this issue.

stock of knowledge which, in turn, might be subject to specific institutional environments – both at the national and at the industrial levels.

Patents' count mainly helps us to comprehend the *quantitative* dimension of corporate innovations. In order to normalize it, one must impose measurement restrictions such as size and industrial profiles of the companies analyzed. Based on this, I weight knowledge stocks by tangible assets that include "plant, equipment, inventories, and financial assets" (Griliches, 1981: 183). Furthermore, I introduce industrial dummies.

> ***Hypothesis 2***
>
> Tokyo Stock Exchange positively evaluates companies whose R&D expenditures yield higher patent stocks. While resulting from the institutional features, this proxy also represents the *quantitative-market* aspect of corporate innovative policies.

Early empirical works on market perception of knowledge assets solely relied on patent counts (Griliches, 1984; see Scherer, 1965; Schmookler, 2013), which, as mentioned above, represent the quality of innovations only fragmentarily. Therefore, in order to estimate the *quality* of patented inventions, I account for citations accruing to them. *Citations per patent* is considered to be the best available indicator of technological significance (Acharya, Baghai, & Subramanian, 2013; Lechevalier, Nishimura, & Storz, 2014). This parameter introduces the qualitative dimension to otherwise quantitative metrics of "Patents' stock weighted by Assets." It also demonstrates firm's capacity to wage industrial competition on different institutional grounds. Technically, however, citations' count entails some important issues. Firstly, the distribution of citations per patent is very uneven, meaning that there are relatively few highly influential (i.e. highly cited) patents, whereas the rest have mediocre to minor impact (Kleinknecht, van Montfort, & Brouwer, 2002; Trajtenberg, 1990). Secondly, according to Hall, Jaffe, & Trajtenberg (2005) (p. 17) "citations to a given patent typically keep coming over long periods of time, but we only observe them until the last date of the available data." In order to mitigate this issue known as a *truncation problem*, I adopt the established methodology of using citation *stocks*, also accounting for their depreciation rate over time.

> ***Hypothesis 3***
>
> Tokyo Stock Exchange positively evaluates influential patents judged by the number of citations accruing to them. This represents the *qualitative-market* aspect of innovative policies.

Patents are the result of the transformative increase in "knowledge stock" or "intangible assets." This is the relationship between "ΔK" (unobservable gain in knowledge) and "Pats" shown in the Figure 1. While "Pats" is an observable *output* variable, "R&D" represents observable *inputs* to the knowledge stock. Since "Pats" are not solely determined by intangible assets' increase, this is reflected in the presence of unobservable impacts ν. Likewise, intangible assets depend not only on the R&D expenditures but also on other input factors marked as ω. "Z's," on the other hand, denote economic benefits stemming from "ΔK." Among others, "Z's" embody market perception of corporate tangible and intangible assets. I operationalize the value of innovation (the "Z's") via the *Tobin's q*. "Z's" are additionally influenced by observable inputs "X's" "such as investments and labor input" (Czarnitzki, Hall, & Oriani, 2006: 116), as well as unobservable effects "ε's."

To capture the impact of "X's," I include the following control variables:

- *Capital Intensity.* Calculated as fixed assets divided by the number of employees, it reflects the capital requirements needed to successfully wage industrial competition (Czarnitzki & Kraft, 2010).
- *R&D Intensity.* Calculated as R&D spending divided by Sales. Differently from the R&D stocks weighted by Tangible Assets, this variable controls for the corporate strategy on whether to prioritize long-term R&D investment over short-term profits resulting from sales. Furthermore, Fukao, Ikeuchi, Kim, & Kwon (2017) use it as a proxy for product innovations.
- *Process Innovation.* Calculated as Investment divided by Capital Stock (Fukao, Ikeuchi, Kim, & Kwon, 2017).

- *Leverage*. Calculated as Total Liabilities divided by Total Assets (and also known as *Debt Ratio*), it is used as a control variable by Czarnitzki & Kraft (2009) and He & Wang (2009). According to the agency theory, higher leverage goes hand-in-hand with more scrutiny from corporate creditors, hence imposing financial discipline upon incumbent management. Thereby, CEOs' interests become closer aligned with those of shareholders, which helps decreasing agency costs (Berger & Bonaccorsi di Patti, 2006).
- *ROA* (Return on Assets). Calculated as Net Income divided by Total Assets. Demonstrating the capacity to generate revenues with the available assets, it exemplifies corporate profitability for investors.
- *Age*. Variable commonly used to control for the possible differences between younger and older companies.

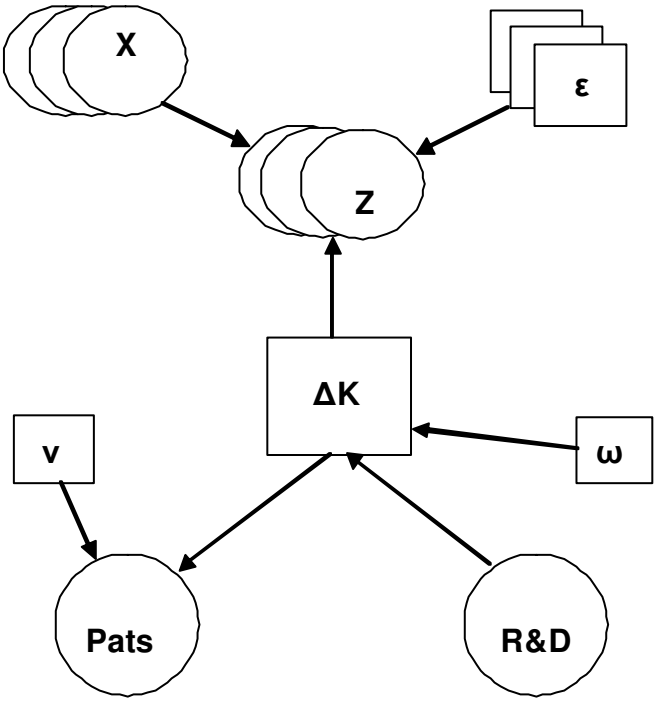


Fig. 1 The measurement of knowledge capital (Pakes & Griliches, 1984)

3 Methodology

3.1 Industrial patenting trends

The total count of companies analyzed in this article is 684, with each unit extending over 19 years (from 1998 till 2016), making the obtained time-series comparable to international standards and considerably larger than any of those used in existing studies on Japan. The resulting data-set analyzed in this article contains 12,996 observations. After eliminating the outliers, the "clean" data has 8,038 observations. For the comparison, the data-set employed by Sandner (2010) encompasses 6,757 observations. My data includes fewer companies but stretches across a longer time-frame, which, at the end, brings the number of total cases to the common benchmark.

The data-set used here is the result of merging two files: one, obtained from the Nikkei NEEDS Financial Quest, includes corporate financial information, another, extracted from the Institute of Intellectual Property

Patent Database (IIP-DB), captures companies' patenting activities registered with the Japan Patent Office (JPO). The latter source was originally compiled by Goto & Motohashi (2007). Following the example of Hall, Jaffe, & Trajtenberg (2005), I included the companies from Pharmaceutical, Chemical, Machinery and Electrical Equipment industries as specified in the NEEDS Database.

The problem of classifying patents was addressed by Griliches (1998). On one hand, there is a "target" approach based on the classification of the World Intellectual Property Organization (WIPO) or the National Bureau of Economic Research (NBER). The IIP-DB, which the current study relies on, uses this classification as well (Goto & Motohashi, 2007: 1433). It answers the question which field can the respective patent be most fitting at. This, however, entails serious problems for the firm-level study, as the same company can file patents belonging to multiple classes.

> "The Patent Office classifies patents into many classes (300+ in the mid-1950s) and even many more subclasses (over 50,000), based on its need to ease the search for prior art. The resulting classification system is based primarily on technological and functional principles and is only rarely related to economists' notions of products or well-defined industries (which may be a mirage anyway). A subclass dealing with the dispensing of liquids contains both a patent for a water pistol and one for a holy water dispenser."
>
> — (Griliches, 1998: 292)

Hence, the alternative "origin" approach adopted in this article "starts from patent totals for particular firms and then groups them into industries according to the firm's primary activity" (Griliches, 1998: 294). Following the methodological suggestion by Haneda & Odagiri (1998) that was implemented in all the subsequent works related to Japan, I used the industrial classification present in the NEEDS Database.

The chronological frames are motivated by the following considerations. On one hand, the lower limit is dictated by the earliest availability of the market-related corporate information. On the other hand, since it takes on average several years for an application to be either rejected or granted, the years 2015-2019 so far contain very few patent-related records, which will however become more substantial as time passes. The length of the patent-registration process is one of the reasons why the curves on the Figure 2 are downward-sloping from the mid-2000s onward.

Another possible reason for the drastic decrease in the application periods is the series of amendments introduced into the Japanese patent law during 1990s. First, in 1994, the pre-grant opposition system was replaced for the post-grant one, thereby eliminating potential procedural delays. Second, in 1998, the punishments for the copy-rights infringements were severed by including the "opportunity cost" component into the compensation entitled for the license-holder. Due to this, patentees had more solid reasons to seek for the legal protection of their inventions. Third, in 1999, the period for the compulsory request for patent examination (a prerequisite for its registration) was decreased from 7 to 3 years from the date of application. Thereby, many applicants were prompted to speed up the registration of their inventions (Nagaoka, 2009).

Table 1 Average Timing (in Years) of Patent Grants per Industry

	1971-1980	**1981-1990**	**1991-2000**	**2001-2014**	**Combined**
Chemical	6.87	8.09	7.64	4.81	6.66
Electronics	7.28	8.66	7.29	4.38	6.67
Machinery	6.64	7.83	6.73	4.51	6.25
Motor	6.56	8.29	7.17	4.37	6.39
Pharm	7.59	8.34	8.24	5.04	7.10
Precision	7.62	8.94	7.93	4.65	7.05
Cumulative	6.90	8.14	6.95	4.55	6.45

Apart from this, the industry-specific timings for patent applications have been relatively stable throughout decades. Application-filing process is especially time-consuming for the Pharmaceutical industry, where the

average period for granting a patent is 7.1 years – well above the cumulative mean of 6.45 years (see also the Table 1). Although an average time for receiving a patent within the Chemical industry throughout 1971-2014 was roughly the same as within the Electronics, the Table 1 shows that starting from 1990s Chemical-related applications have required more approval time than the Electric-related ones. Hence, especially for the period analyzed in this article, most challenging conditions for licensing appear to be in the Chemical and the related Pharmaceutical industries. This goes hand in hand with the importance of patenting activities for these sectors both in Japan and internationally (Cohen, Goto, Nagata, Nelson, & Walsh, 2002; Hall, Jaffe, & Trajtenberg, 2005). In general, it is certainly too early to provide the full information on the number of granted patents filed during the last decade. However, this problem is mitigated by accounting for patents' *stock* rather than flow, which I discuss in the Section 3.3.

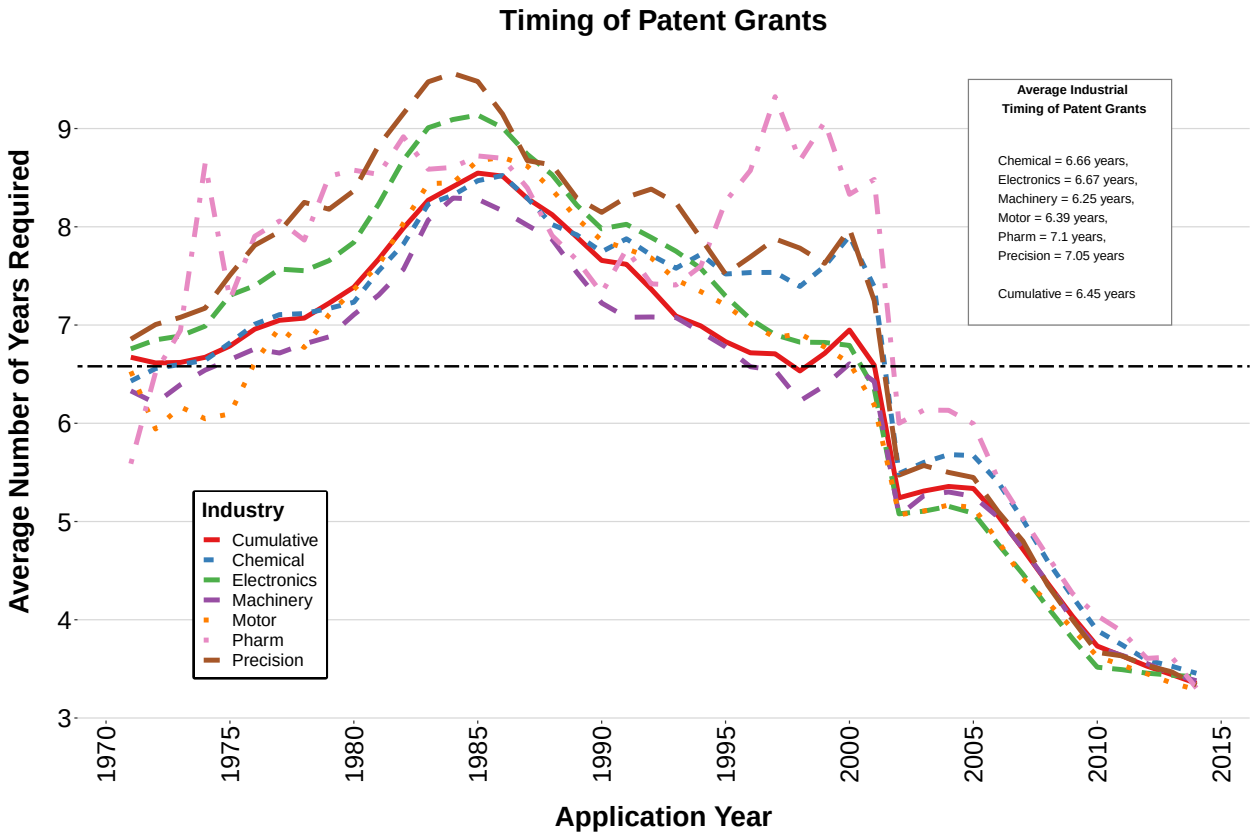


Fig. 2 Timing for turning patent applications into grants

While corporate financial data (except the R&D spending that also stems from knowledge assets) does not entail any particular technical issues, patent-related information needs to meet some criteria before running a regression. Following the methodology adopted in the existing literature, I have used the entries based on the *date of filing the patent application*, which is a point in time, from which a corresponding invention would be legally protected. However, the copyright mechanism can only be enforced if a patent is subsequently granted. In this case, a corresponding company can receive benefits associated with license possession, apart from the technological improvements an invention may generate (Czarnitzki, Hall, & Oriani, 2006: 123). This is the main reason behind choosing only the successful patent applications for this study.

In fact, as seen from the Figure 3, the median granting success rate of patents filed with the Japan Patent Office (JPO) from 1971 to 2014 was 37 percent. This number is very similar to the 35 percent in Germany and is considerably lower compared to countries such as France (90 percent) and the U.K. (80 percent) (Griliches, 1998: 289). Although the granting rate has been on a sharp rise in Japan since early 2000s, it is still indicative of a stringent control mechanism that the local application process entails. Schankerman (1998) notes the following: "Patents originating in Japan are substantially more valuable than in other countries, and the

difference is most striking for electronics patents" (p. 80). This trend is depicted, among others, on the Figure 3, where Electronics have the lowest granting rate of 30 percent.

At the same time, the comparatively high industrial success rates for Pharmaceuticals (50 percent) and Chemicals (48 percent) do not automatically imply the low quality of the respective patents. It is rather a cause of patents being particularly important for realizing the gains from intangible assets. Differently from Electronics, "in the pharmaceutical industry, patents are perceived as a relatively effective tool of appropriating rents from technological innovations as compared to other types of mechanism such as trade secret, increasing complexity of product design and faster market introduction" (Motohashi, 2008: 1548). This has been a common finding across numerous studies concluding that the knowledge assets have the most pronounced role for the market valuation of companies within the Pharmaceutical sector (Czarnitzki, Hall, & Oriani, 2006: 15). Finally, if we look at the yearly cohorts displayed in the Table 2, the figures for Pharmaceuticals and Chemicals within the period of 1991-2000 (part of which is included in this article's econometric analysis) hardly surpass the cumulative median.

Table 2 Median Ratio of Grants to Patent Applications per Industry

	1971-1980	**1981-1990**	**1991-2000**	**2001-2014**	**Combined**
Chemical	0.52	0.45	0.34	0.55	0.48
Electronics	0.31	0.24	0.28	0.46	0.30
Machinery	0.45	0.38	0.38	0.52	0.41
Motor	0.44	0.38	0.43	0.50	0.44
Pharm	0.58	0.51	0.36	0.50	0.50
Precision	0.35	0.38	0.28	0.42	0.36
Cumulative	0.38	0.33	0.34	0.49	0.37

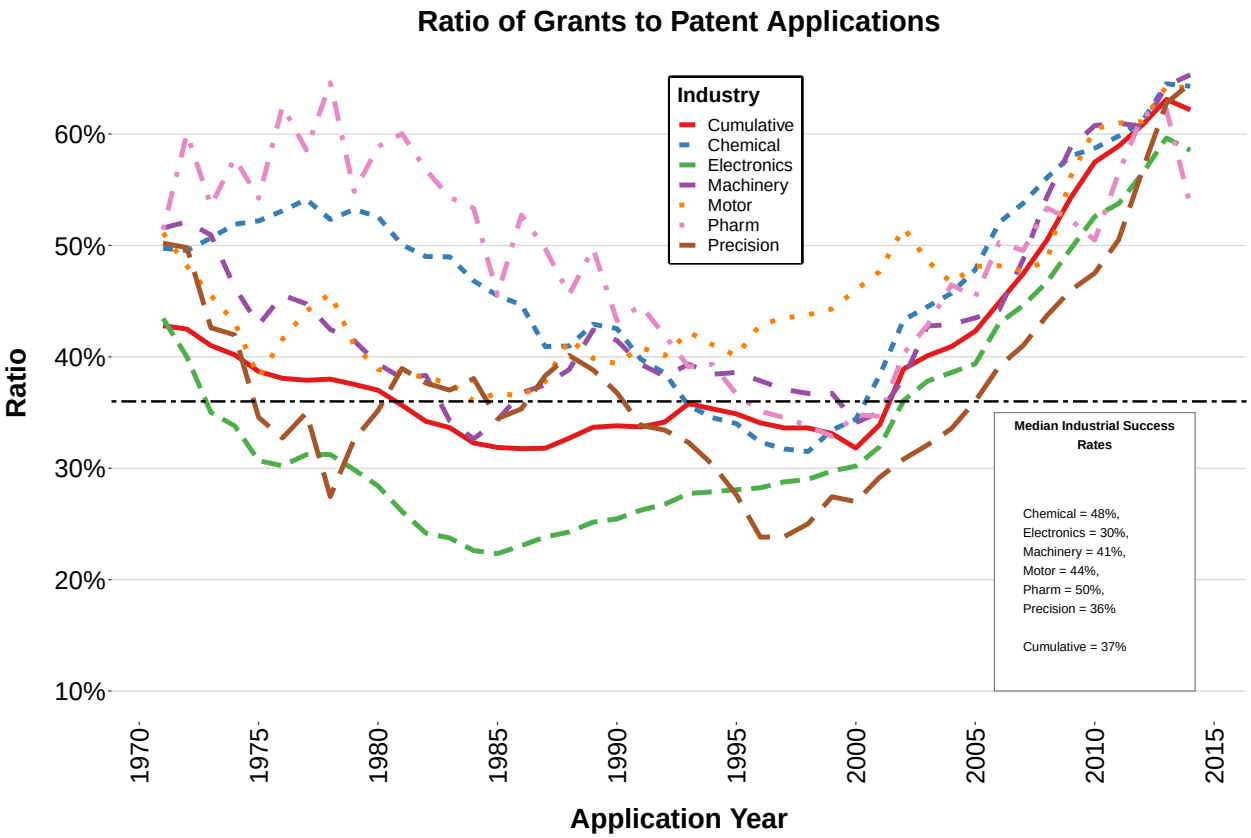


Fig. 3 Granting success rate of patents filed with the JPO

3.2 Depreciation rates and licences' length

Since the current study is preoccupied with Japan, I have adopted the yearly depreciation rates of patent stock from Nakanishi & Yamada (2008). According to them (p. 8), the rate of obsolescence for Electrical industry is 24.2 percent, for Chemicals – 32.3 percent, for Pharmaceuticals – 27.4 percent, for Precision Machinery – 24.5 percent and for Transportation Machinery – 26.1 percent. The previous obsolescence rates used in the Japan-related studies were based on Haneda & Odagiri (1998), who in turn, relied on the 1985 data provided by the Science and Technology Agency (p. 319). Indeed, those rates may no longer be accurate today.

On the international level, most of the articles adopted the approach by Hall, Jaffe, & Trajtenberg (2005) who used the conventional depreciation rate of 15 percent for all industries. Although I follow Hall, Jaffe, & Trajtenberg (2005) in using the same rates of obsolescence for citations, R&D stock and patents, I rely on Nakanishi & Yamada (2008) in adopting industrially-specific figures. Hall, Jaffe, & Trajtenberg (2005) admit that "this is an issue that deserves some serious revisiting, in light of the much more detailed data that we now have at our disposal" (p. 24).

Depreciation rates are calculated based on "the rate of decay of the private revenues accruing to industrially produced knowledge" (Nadiri & Prucha, 1996: 51). As Pakes & Schankerman (1984) (p. 75) stress, the depreciation of knowledge stock depends on the *market valuation* rather than on a physical decline in technological assets. Market opinion is based on the fact that fresh innovations outshine the previous ones, making it difficult to appropriate rents from inventions over long periods of time. One of the components of the knowledge stock decay is the length of patents' licenses (Pakes, Simpson, Judd, & Mansfield, 1989). The fact that a firm chooses not to pay an extension fee for its patent is the sign that the accompanying "maintenance costs" outstrip the profits accruing to a license holder. Shorter lifespans of patents therefore

reflect an intensive industrial competition that prompts companies to develop new technologies rather than to hold onto diminishing rents from older knowledge assets.

Figure 4 shows the general correspondence of the obsolescence rates to the industrial patterns of Japanese companies. Looking at the "2001-2014" cohort from the Table 3, with Pharmaceuticals and Chemicals having the shortest licenses' lengths, we can confirm the previous claim about the most challenging conditions for patenting in these industries that are additionally reinforced by the more rapid technological progress.

Similarly to the time required to register a patent, the average patent lifespan has decreased drastically from the late-1990s onward. The following reasons can be responsible for this trend. First, the intensified international competition has accelerated the amortization of intangible assets especially across the developed states. Second, increasing productivity rates through continuous technological upgrading has been crucial for Japan's efforts to mitigate the effects of 1990s' "lost decade." Third, patent examination and renewal fees were raised almost two-fold during early 2000s in Japan. Fourth, significant Japanese inventions registered with major foreign patent offices have been granted a faster examination track (Nagaoka, 2009). In a nutshell, during the last two decades, patenting has become more competitive and dynamic than before, thereby decreasing a lifespan of an average patent.

Table 3 Average Lenght of Patent Licences (Years)

	1971-1980	**1981-1990**	**1991-2000**	**2001-2014**	**Combined**
Chemical	9.41	8.18	8.70	4.49	7.40
Electronics	9.54	8.13	8.50	4.77	7.47
Machinery	8.42	7.76	8.52	4.61	7.08
Motor	8.75	7.58	7.92	4.55	6.96
Pharm	8.49	7.22	7.77	4.24	6.69
Precision	8.98	7.91	8.33	4.86	7.28
Cumulative	8.92	7.94	8.34	4.61	7.20

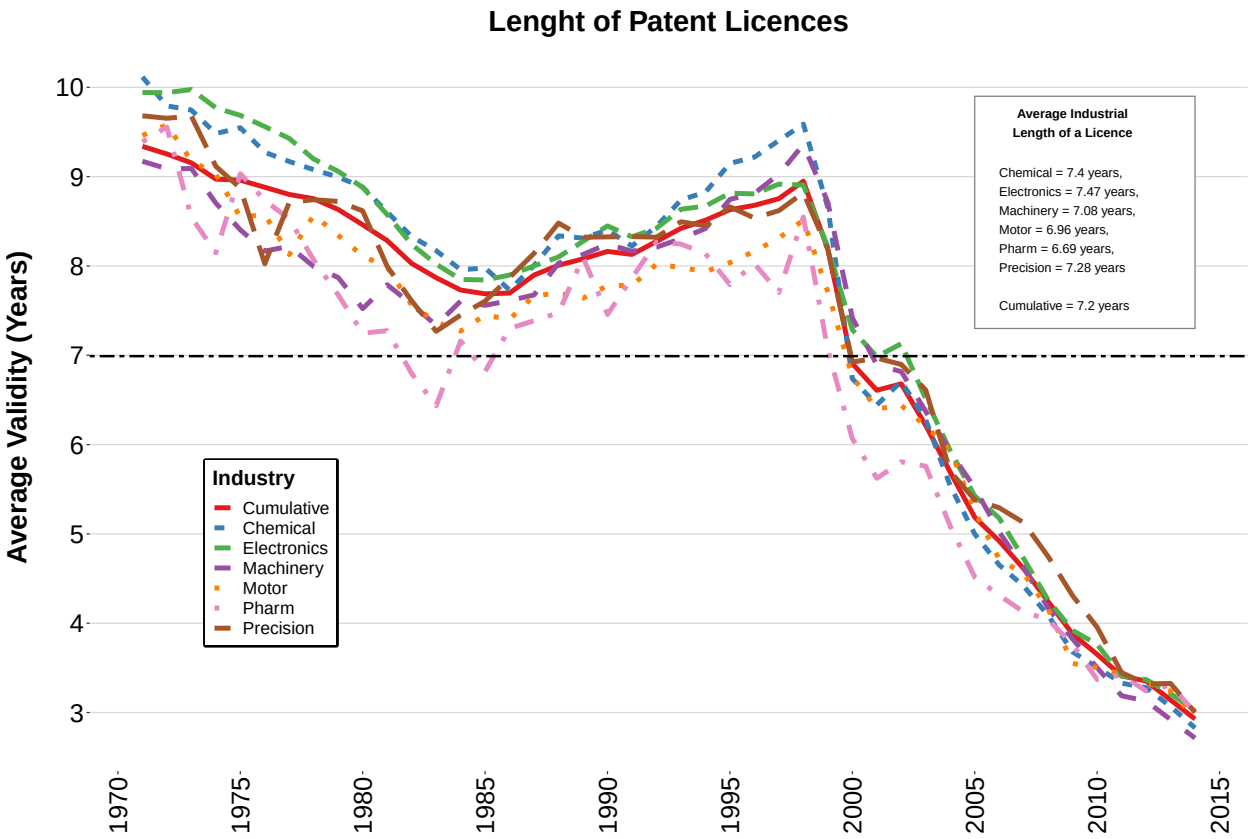


Fig. 4 Lifespan of patents' licenses by industry

3.3 Model

To sum up the three main indicators of innovation: "R&D reveals the commitment of a firm's resources to innovation, patents catalog the success in generating codifiable new knowledge that the firm can in principle appropriate, and citations indicate the extent to which those innovations turn out to be 'important' and hence presumably more valuable to the firm" (Hall, Jaffe, & Trajtenberg, 2005: 24).

Differently from most of the financial variables that represent a *flow*, i.e. a value at a certain time-point exclusively, knowledge-related assets accumulate their value over time, thus corresponding to a type of a *stock*. Since all the relevant time-series data is originally available as a flow, one needs to justify the technique of converting it to a stock. Below is the example of distinguishing two measurements:

> "Income is a flow. It corresponds to the quantity of goods produced and distributed in a given period (which we generally take to be a year). Capital is a stock. It corresponds to the total wealth owned at a given point in time. This stock comes from the wealth appropriated or accumulated in all prior years combined."
>
> — (Piketty, 2017: 63)

R&D stock RS_t is calculated based on Cockburn & Griliches (1988) using the following formula:

$$RS_t = RD_t + (1 - \delta)RS_{t-1} \tag{1}$$

where RD_t is R&D expenditures during the time t (year of the observation), δ is the R&D yearly depreciation rate, and RS_{t-1} is the R&D stock accumulated during years preceding the time t. The patent stock PS_t and citations stock CS_t are calculated using the same method.

Most of the studies on this topic have followed the model developed in the seminal work by Griliches (1981) that was further elaborated in Cockburn & Griliches (1988). According to them, the market value of the firm, V, can be expressed as follows:

$$V_{it} = \alpha(A_{it} + \beta K_{it}) \tag{2}$$

where A stands for the firm's tangible assets, K represents the knowledge stock, and α – "current market valuation [...] of the firm's assets, reflecting its differential risk and monopoly position" (Griliches, 1981: 183).

As the definition of *Tobin's q* is the ratio of the market value V of a firm to its book value A, we can rewrite the formula as:

$$q_t = \frac{V_{it}}{A_{it}} = \alpha\left(1 + \beta\frac{K_{it}}{A_{it}}\right) \tag{3}$$

Taking the logarithms, we get

$$\log q_{it} = \log \alpha_t + \log\left(1 + \beta\frac{K_{it}}{A_{it}}\right) + \varepsilon_{it} \tag{4}$$

where ε_{it} is the error term or the noise of the model.

Here, the knowledge stock K consists of three components, such as: *R&D weighted by Tangible Assets*, *Patents per Japanese yen spent on R&D*, and *Citations per Patent*. Incorporating these measurements, we can rewrite the last equation as follows, according to the suggestion of Hall, Jaffe, & Trajtenberg (2005) (p. 24):

$$\log q_{it} = \log \alpha_t + \log\left(1 + \beta_1\frac{R\&D_{it}}{A_{it}} + \beta_2\frac{Pat_{it}}{R\&D_{it}} + \beta_3\frac{Cites_{it}}{Pat_{it}}\right) + \varepsilon_{it} \tag{5}$$

4 Data Analysis

4.1 Overview

Table 4 General Descriptive Statistics

Statistic	N	Mean	Median	Min	Max	St. Dev.
R&D/Assets	11,067	0.145	0.085	0.000	1.242	0.190
Patents/Assets	10,499	0.003	0.002	0.000	0.020	0.004
Citations/Assets	10,837	0.065	0.007	0.000	0.698	0.121
Patents/R&D	10,339	0.016	0.009	0.000	0.150	0.022
Citations/Patents	11,777	2.298	2.002	0.0001	12.538	1.567
Tobin's q	8,489	1.192	0.832	0.0001	7.960	1.213
R&D Intensity	11,020	0.039	0.029	0.00004	0.250	0.037
Process Innovation	11,758	1.322	0.912	0.002	8.000	1.292
Leverage	11,973	0.468	0.472	0.014	0.997	0.206
Capital Intensity	11,876	18.169	14.681	0.308	99.887	12.840
ROA	11,895	0.042	0.041	−0.248	0.249	0.058
Age	12,654	58.785	59.000	1.000	127.000	21.865

Current analysis encompasses four industries: Electric, Machinery, Chemical and Pharmaceutical. Due to significant industrial patterns of technological innovations, authors such as Hall, Jaffe, & Trajtenberg (2005)

include industrial effects into their regression analysis. I follow this methodology and present below the summary of my findings.

The summary statistics are displayed in the Table 4. Compared to the data used by Hall, Jaffe, & Trajtenberg (2005), the values of "market-to-book value" or Tobin's q are almost identical. There are, however, notable differences among other variables. Having converted Japanese yen to U.S. dollars (the average monthly exchange rate from 1998 till 2016 was 107.625), we can see that the median value of "Patents per U.S. dollars spent on R&D" pertaining to the current data-set is considerably higher (0.009 * 107.625 = 0.97) than the one in the study mentioned above (0.51). This means that Japanese companies use their R&D funds more efficiently judged by the scope of the patented output. Japan and U.S. comparison by Sakakibara & Branstetter (2001) yielded similar results. On the other hand, the median ratio of "citations per patent" (the variable reflecting patents' quality) for the current Japanese data-set is more than three-times lower (1.97) than the "6.33" figure recorded by Hall, Jaffe, & Trajtenberg (2005). From this we can infer that despite being less numerous, the U.S.-originated patents are more influential judged by the number of acquired citations. The explanation of differences between Japan and the U.S. would be, however, incomplete without the reference to the institutional contexts of both countries. According to Cohen, Goto, Nagata, Nelson, & Walsh (2002), "Japanese firms tend to use patents more to assure their inclusion and freedom of operation even in discrete product markets where American firms tend to use patents more for exclusion. The use of patents in Japan for maintaining market access and freedom of operation rather than for exclusion is reinforced by the comparatively low payoffs to infringement suits in Japan" (p. 1365).

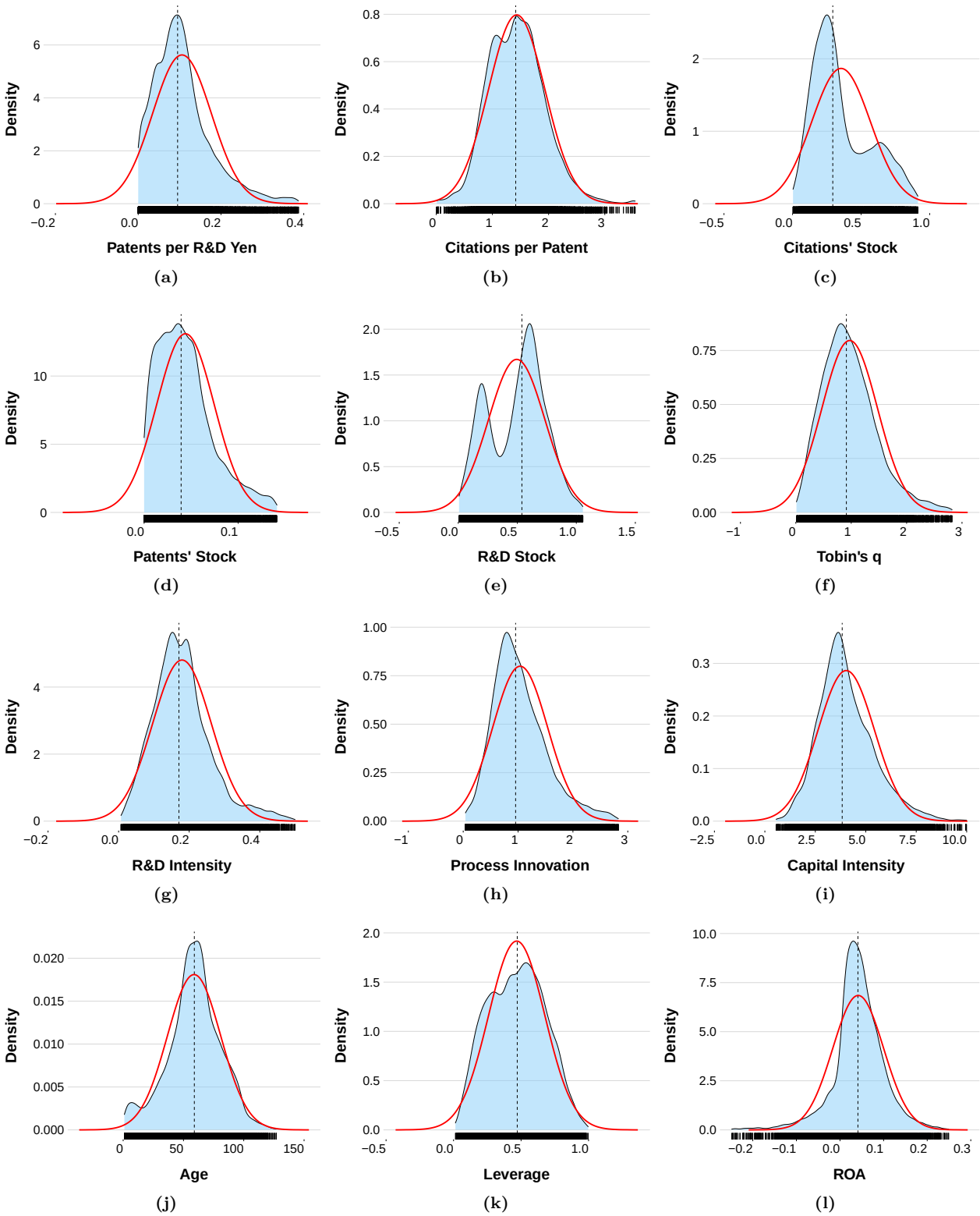


Fig. 5 Normalized density plots

The exploratory data analysis from the Table 4 demonstrates that the values of different knowledge stocks such as Patents, Citations and R&D are noticeably right-skewed. This can be inferred from the fact that the averages substantially exceed the respective median values. In other words, there is a tiny fraction of companies with numerous patents and resulting citations, as well as those having relatively high levels of R&D expenditure. Due to the high likelihood for unevenly distributed variables to distort the results of the linear regression, I apply the *fourth-root transformation* to heavily-skewed R&D and Citations' stocks to satisfy the criteria of normality.

Patent Stocks, *Citations per Patent* as well as the dependent variable *Tobin's q* are also distributed unevenly. However, since their positive skewness is moderate, following the suggestion of Wood (2017) I apply the *square-root transformation* for running a subsequent regression. The alternative log-transformation would have led to the negative skewness instead of normalizing the data. An analogous moderate skewness is the feature of the group of control variables that include *Capital Intensity*, *Process Innovation* and *R&D Intensity*. On the other hand, such control variables as *ROA*, *Age* and *Leverage* are normally distributed.

The normalized density plots of the variables included in the linear regression are presented in the Figure 5. While the manually-transformed density plots are colored in blue, the overlaid red curves represent hypothetically ideal normal distribution. As the plots demonstrate, each of the transformed variables appears close enough to the normal distribution, which allows us to run the linear regression model.

4.2 Robustness tests

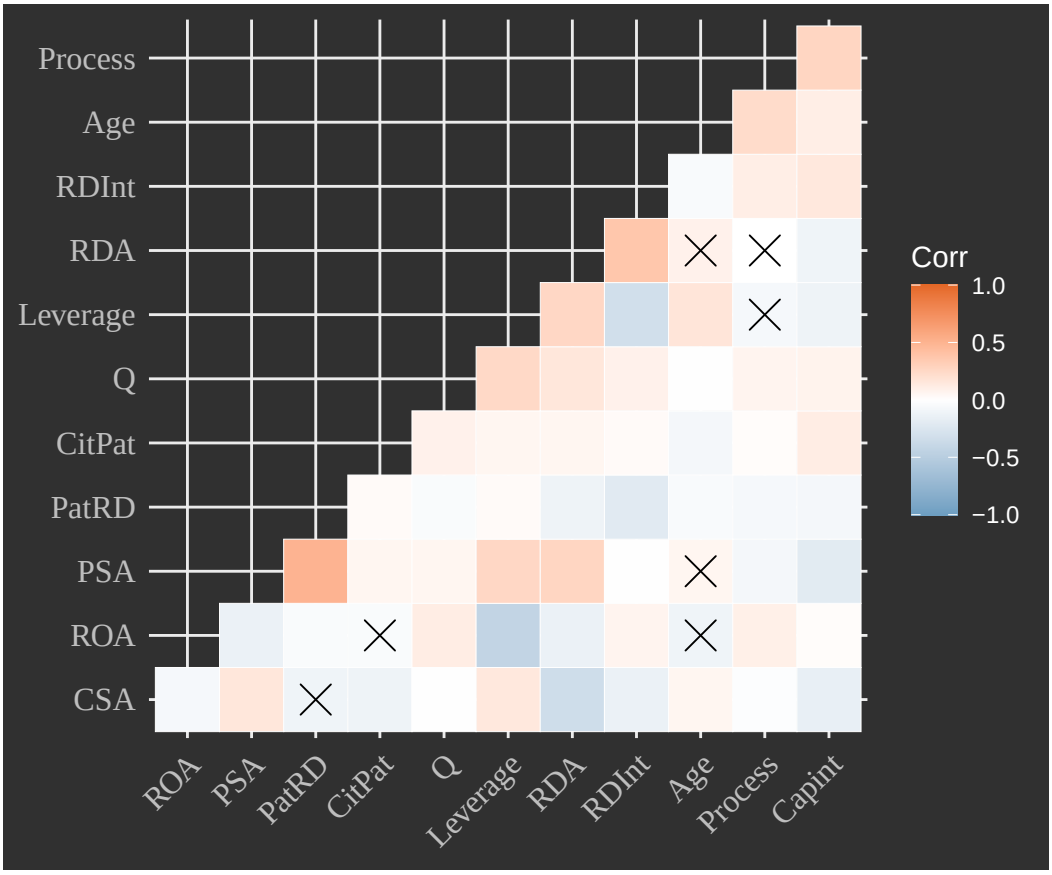


Fig. 6 Visualized correlation matrix

It is known that the presence of correlation among linear model predictors leads to the multicollinearity problem. The Figure 6 demonstrates the absence of such issue for the current research. The only potential

concern is the relatively high correlation ratio between Patent Stocks (PSA) and Patent per yen spent on R&D. However, since these two variables are not simultaneously present in the same regression, this does not impede the econometric analysis.

I have also computed the variance inflation factor (VIF) scores for the main regression model that follows the Equation (5). The results of the test are presented in the Table 5. Since none of the 1/VIF coefficients exceed 2, we can once again confirm the absence of multicollinearity issues.

Table 5 Variance Inflation Factors

	GVIF	1/VIF
Year	1.58	1.013
Industry	3.847	1.252
R&D Assets	3.143	1.773
Patents/R&D	1.125	1.061
Citations/Patents	1.352	1.163
R&D Intensity	1.922	1.387
Process Innovation	1.106	1.052
Leverage	1.554	1.247
ROA	1.188	1.09
Capital Intensity	1.291	1.136
Age	1.106	1.052

The following tests provide the basis for choosing the appropriate type of the linear model described in the Equation (5). Both the F-test and the Lagrange Multiplier test have rejected the null-hypothesis about the absence of the unobserved effects in favor of Fixed-Effects and Random-Effects models respectively. In addition to this, the significantly low p-value of the Hausman test yielded support to the application of the Fixed-Effects model. The economic theory pertaining to the analyzed area suggests that firms tend to *collectively* change their strategies for meeting market expectations (Hall, Jaffe, & Trajtenberg, 2005: 26), which yields support to the inclusion of industrial, rather than firm-level effects. In addition to controlling for industrial affiliation, I incorporated time-effects by including the yearly dummies into the regression model.

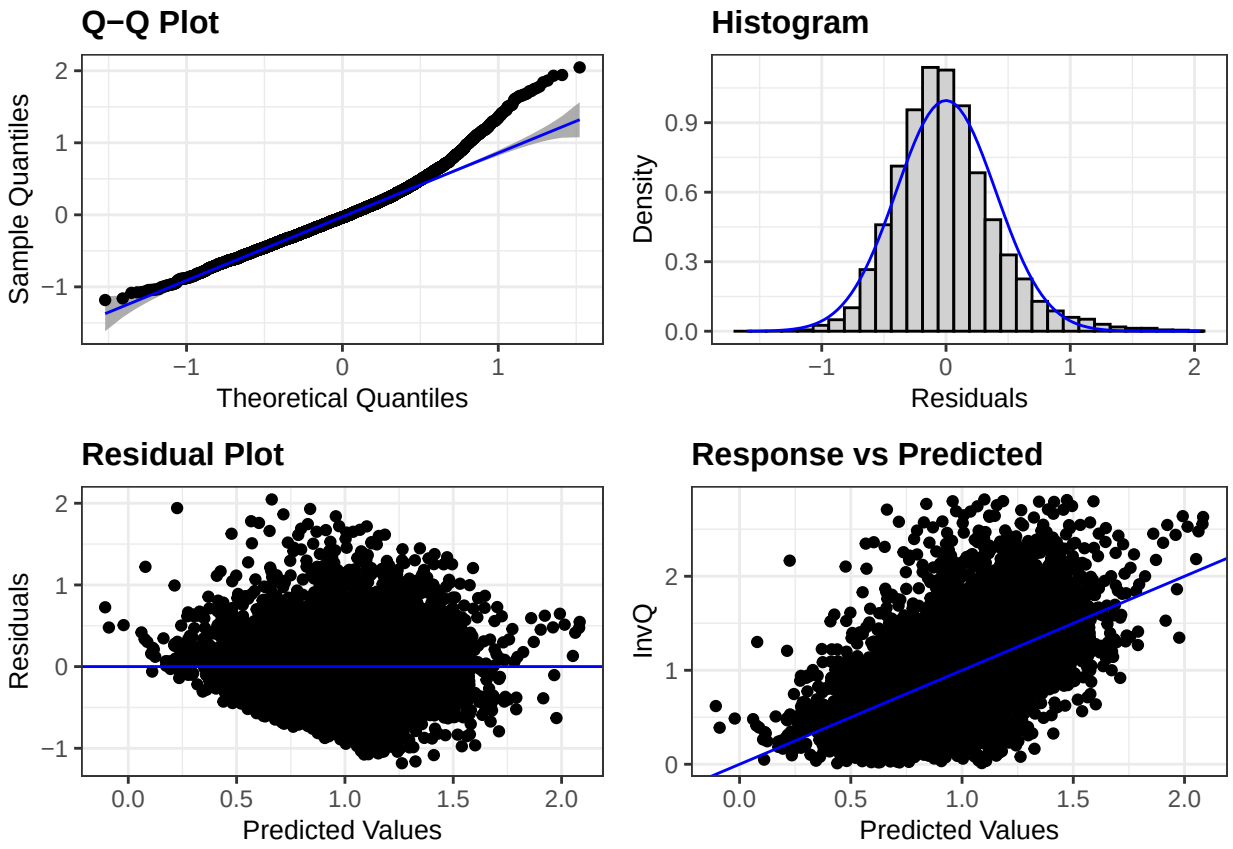


Fig. 7 Diagnostic Plots for the OLS Regression

Finally, the diagnostics present in the Figure 7 provide a conclusive evidence about the following.

1. *Normality of residuals.*
   The residuals from the Q-Q Plot largely follow the straight line, which satisfies the normality requirement. This claim is further reinforced by the histogram plot that confirms the normal distribution pattern for the residuals.

2. *Homoscedasticity.*
   The error terms from the Residual Plot are located fairly symmetrically to the horizontal line, not resembling any patterns. Hence, heteroscedasticity is not an issue.

3. *Linearity of the data.*
   The relationship between the predictors and the outcome (Tobin's q) follow a clear positive linear pattern, as seen from the "Response vs Predicted" plot. This corresponds to the initial assumptions of this paper.

4.3 Regressions

4.3.1 OLS models

My first estimations of the market valuation of knowledge assets are the so-called "horse race" regressions – the term coined by Hall, Jaffe, & Trajtenberg (2005). The name derives from the fact that every equation contains only one knowledge asset as an independent variable. Thereby it becomes possible to tentatively identify the innovation metric attracting most of the market's attention. As the Table 6 demonstrates, overall

premiums related to R&D stock are more significant than the ones associated with patents and citations. This finding corresponds both to Cohen, Goto, Nagata, Nelson, & Walsh (2002) who stressed the importance of R&D spillovers for the Japanese firms, and to Hall, Jaffe, & Trajtenberg (2005) as well other authors who found out that R&D investment attracts most of the market attention in the contexts of the U.S. and Western Europe.

More specifically, R&D expenditures are valued for the Chemical and Pharmaceutical industries. In other words, similarly to Cohen, Goto, Nagata, Nelson, & Walsh (2002), my results confirm that amid the general tendency of the Japanese stock market to regard R&D as the most important innovative proxy, it is also known for singling out Drugs industry in terms of its intangible output.

Table 6 Horse Race Regressions of Knowledge Assets

	Dependent variable:		
	Tobin's q		
	(1)	(2)	(3)
Intercept	0.380^{***} (0.051)	0.714^{***} (0.034)	0.673^{***} (0.040)
D (Electric)	0.121^{**} (0.060)	0.060^{**} (0.027)	-0.055 (0.037)
D (Machinery)	0.469^{***} (0.048)	0.104^{***} (0.026)	-0.176^{***} (0.053)
D (Pharm)	-0.061 (0.102)	0.517^{***} (0.037)	0.555^{***} (0.051)
R&D/Assets	0.961^{***} (0.072)		
Electric	-0.299^{***} (0.092)		
Machinery	-0.690^{***} (0.105)		
Pharm	0.776^{***} (0.170)		
Patents/Assets		4.854^{***} (0.445)	
Electric		-2.347^{***} (0.537)	
Machinery		-4.626^{***} (0.529)	
Pharm		-2.375^{*} (1.391)	
Citations/Assets			1.015^{***} (0.106)
Electric			0.157 (0.139)
Machinery			-0.488^{***} (0.129)
Pharm			-0.634^{**} (0.288)
Yearly dummies	Yes	Yes	Yes
Observations	8,038	7,571	7,852
R^2	0.144	0.121	0.133
Adjusted R^2	0.141	0.118	0.130
F Statistic	53.747^{***} (df = 25; 8012)	41.588^{***} (df = 25; 7545)	47.826^{***} (df = 25; 7826)
Note:			*p<0.1; **p<0.05; ***p<0.01

Table 7 Market Value as a Function of R&D, Patents, and Citations Stocks

	Dependent variable:	
	Tobin's q	
	(1)	(2)
Intercept	−0.316*** (0.055)	−0.407*** (0.068)
D (Electric)	0.069*** (0.015)	0.068 (0.076)
D (Machinery)	0.012 (0.029)	0.255*** (0.069)
D (Pharm)	0.356*** (0.025)	0.268** (0.132)
R&D/Assets	0.019 (0.066)	0.608*** (0.096)
Electric		−0.288*** (0.093)
Machinery		0.611*** (0.178)
Pharm		0.537*** (0.204)
Patents/R&D	0.024 (0.081)	1.018*** (0.156)
Electric		−0.916*** (0.207)
Machinery		−2.640*** (0.251)
Pharm		−0.729 (0.520)
Citations/Patents	0.058*** (0.013)	−0.014 (0.018)
Electric		0.187*** (0.026)
Machinery		0.103*** (0.026)
Pharm		−0.033 (0.037)
R&D Intensity	0.738*** (0.118)	0.044 (0.130)
Process Innovation	0.033*** (0.011)	0.032*** (0.011)
Leverage	1.287*** (0.038)	1.086*** (0.042)
ROA	2.716*** (0.106)	2.656*** (0.106)
Capital Intensity	0.038*** (0.005)	0.045*** (0.005)
Age	−0.001*** (0.0003)	−0.001*** (0.0003)
Yearly dummies	Yes	Yes
Observations	6,903	6,903
R^2	0.292	0.310
Adjusted R^2	0.289	0.306
F Statistic	94.537*** (df = 30; 6872)	79.129*** (df = 39; 6863)
Note:		*p<0.1; **p<0.05; ***p<0.01

Table 7 includes several variables that control for the quality of knowledge stocks. Similarly to Hall, Jaffe, & Trajtenberg (2005), it demonstrates that belonging to Pharmaceuticals implies a premium in terms of market valuation of corporate knowledge assets. Furthermore, Drugs are notable for the marketability of their R&D expenditures (R&D stock weighted by Assets). In other words, alone the larger share of the R&D spending is a credible enough signal for investors to allocate premium value to the respective Pharm companies. The same holds true about the positive assessment of R&D stocks for Chemicals and Machinery.

While being more R&D-intensive *per se*, Pharm industry does not strike as an efficient user of the R&D funds (the "Patents per R&D" variable). Only Chemicals stand out for its R&D spending that translates into more inventions valued by market. For it, one may say that the quantity of patented innovations is contingent upon the amount of the R&D-directed funds. The fact that market largely ignores the patented output of R&D is quite surprising, given the importance of this metrics among the rival Japanese firms, as Cohen, Goto, Nagata, Nelson, & Walsh (2002) stress. The possible explanation here is that the "amount of patents per yen spent on R&D" is often inflated and thus does not provide accurate insights on the quality of innovations.

Qualitative aspect, in turn, can be accessed by looking at citations accruing to patents. In this sense, Electric industry, along with the Machinery, are peculiar for receiving market premium for more influential patents. The market perception of influential Chemical patterns, however, is rather vague, but will become clearer

when applying the nonlinear model. The same holds true for the Pharmaceuticals, which suggests that R&D expenditures of Drugs companies is a valuable input per se, regardless of the patented output.

4.3.2 Generalized Additive Models

In most of the existing studies on the market perception of innovations authors use the "nonlinear least squares" (NLS) model. Notably, this technique requires an ex-ante knowledge of function(s) describing relationships between the chosen variables, which is often the case for natural sciences (Venables & Ripley, 2002, Chapter 8). On contrary, social and economic processes are less likely to follow blueprints. Due to this, most of the authors applying NLS for estimating market valuation of knowledge assets have probably relied on self-starting models provided by statistical software, resulting in the fact that neither their camouflaged choices, nor the obtained coefficients are well-interpretable.

An alternative technique geared towards exploring nonlinear relationships is called "generalized additive models" (GAMs). Its main advantage is the ability to find a trade-off between closely capturing the actual relationship present in the data (i.e. being predictive), and not overfitting the model (i.e. not replicating the noise) (Pedersen, Miller, Simpson, & Ross, 2019). In this respect, fitted smooth functions provided by GAMs present a clear insight into existing relationships between variables.

The GAM values are not interpretable in a linear fashion. Instead, all the coefficients except for the industrial and yearly dummies as well as the intercept, represent the so-called "effective degrees of freedom" (EDF). EDFs show the complexity of the smooth (expressed as the number of basis functions), with the value "1" being an equivalent of a straight line, "2" – of a quadratic curve and so on (Pedersen, Miller, Simpson, & Ross, 2019). As a result, while in the linear regression each predictor has only one coefficient, the GAM contains as many coefficients for every independent variable as there are basis functions (plus the intercept). For this reason, in addition to reporting the coefficients, I include the visual representations of GAMs, which, together with diagnostics plots, is a legitimate way to present the results (Wood, 2017, Chapter 7).

Table 8 contains the summary of the model. EDFs exceeding 2 combined with low p-values (beyond the 1% threshold) point at the fact that using GAM instead of a linear model is justified. This condition holds true for all the predictors. Additionally, as the Table 9 demonstrates, the proposed model explains 42.7 % of the variance in the Tobin's q, which represents a robust fit and a considerable improvement from the 31 % value of the respective linear model (see Table 7).

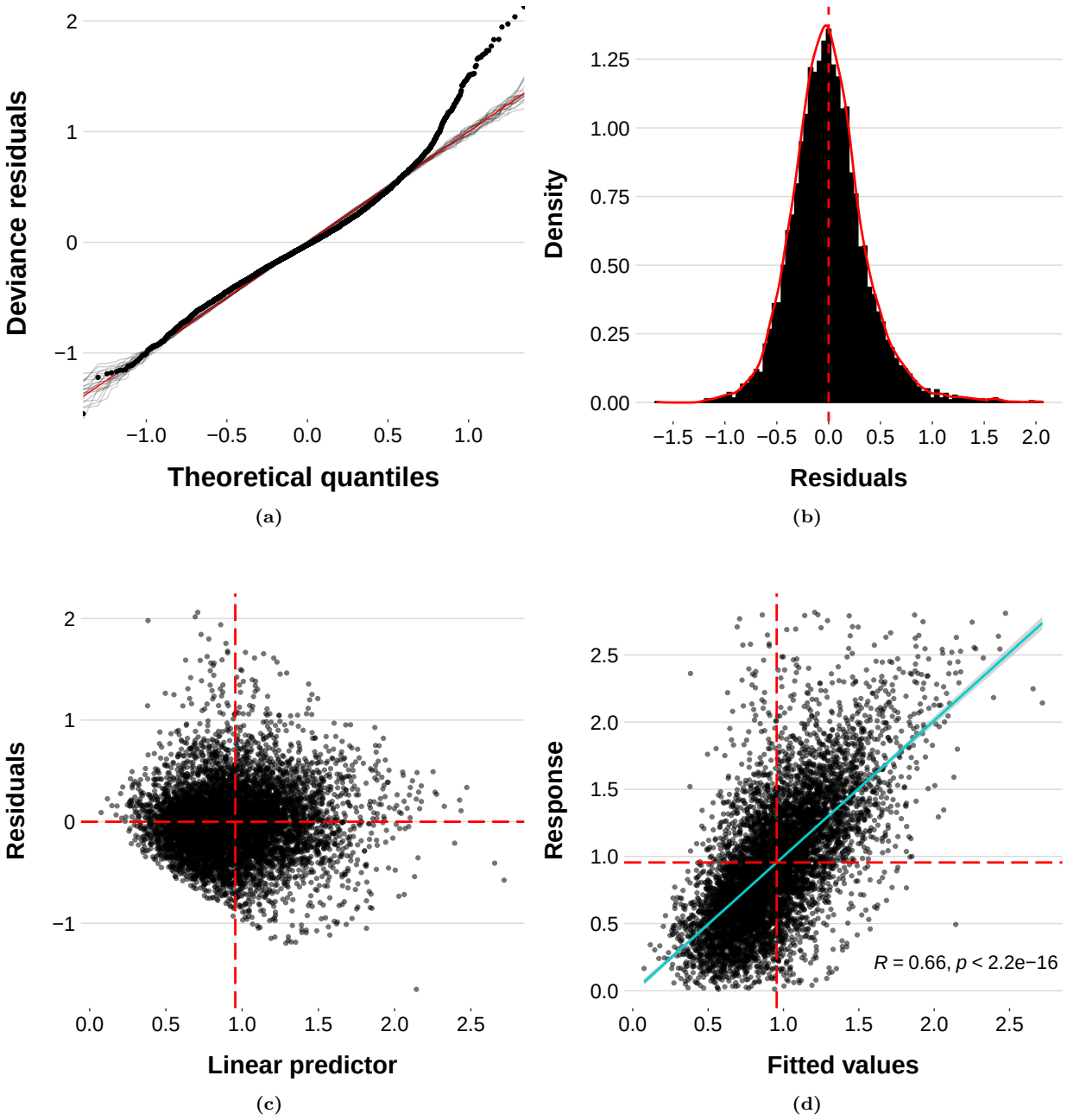
Table 8 GAM Summary

	edf	Ref.df	F	p-value
R&D/Assets	7.35	9.00	3.61	0.00
Patents/R&D	2.69	9.00	2.01	0.00
Citations per Patent	6.38	9.00	4.30	0.00
R&D Intensity	4.95	9.00	4.51	0.00
Process Innovation	6.51	9.00	7.17	0.00
Leverage	7.70	9.00	212.12	0.00
ROA	5.93	9.00	120.95	0.00
Capital Intensity	5.74	9.00	9.39	0.00
Age	7.53	9.00	12.67	0.00

Table 9 GAMs Diagnostics

	GAM	Industrial GAM
AIC	5949	5792
BIC	6481	6561
Log Likelihood	-2897	-2783
Deviance	935.5	905.3
Deviance explained	0.417	0.436
Dispersion	0.137	0.133
R^2	0.411	0.427
GCV score	0.139	0.135
Num. obs.	6903	6903
Num. smooth terms	9	18

Figure 8 displays several diagnostics of the GAM fit. The Figure 8a, also known as a "Q-Q plot," shows the distribution of residuals relative to a straight diagonal line that represents an ideal trajectory. With a few observations towards the higher end being outliers, the values mostly satisfy the normality demand. The Figure 8b provides the illustration of residuals following normal distribution. In the Figure 8c, the residuals generally appear to fall randomly around the zero x-axis value, thus not resembling any potentially overlooked function. Finally, the linear pattern present in the Figure 8d points at the close alignment of the predicted estimates of the dependent variable with its actual values.



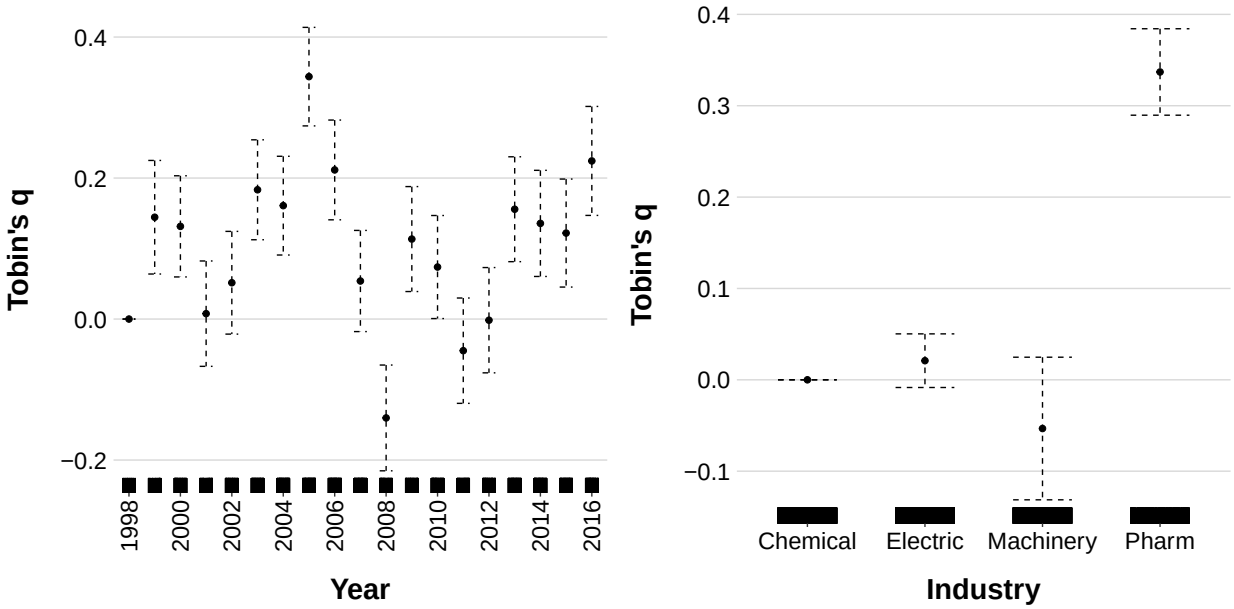
(a) (b) (c) (d)

Fig. 8 GAM Tests

In addition, since yearly and industrial effects are imputed in a regression as dummy variables, their characteristics within the GAM also reverberate those from the respective linear model. For example Figure 9b confirms that market allocates the largest premium to Pharmaceutical companies, while not rewarding other industries as consistently. Except for the Drugs companies, only the Electric firms reap the benefits (yet very minor) of market attention thanks to their industrial affiliation

Since the presented linear regressions did not explicitly mention chronological developments, it is time to bring them up here. According to the Figure 9a, the lowest Tobin's q values corresponding to 2008 echo the effects of the Global Financial Crisis that broke out a year before. On the other hand, a few years preceding

this event were marked by a pronounced growth trend reaching its peak in 2005. Finally, the recent years including 2016 also show a slow but steady recovery of the stock market.



(a) **(b)**

Fig. 9 GAMs visualizations of Yearly and Industrial effects

Next, I will move to the discussion of GAMs applied to the numeric predictors, both with and without industry-wise effects. When presenting the industrial breakdown, I do not include the Pharmaceuticals due to the relatively small size of the sample, which may not be enough to formulate nonlinear assumptions.

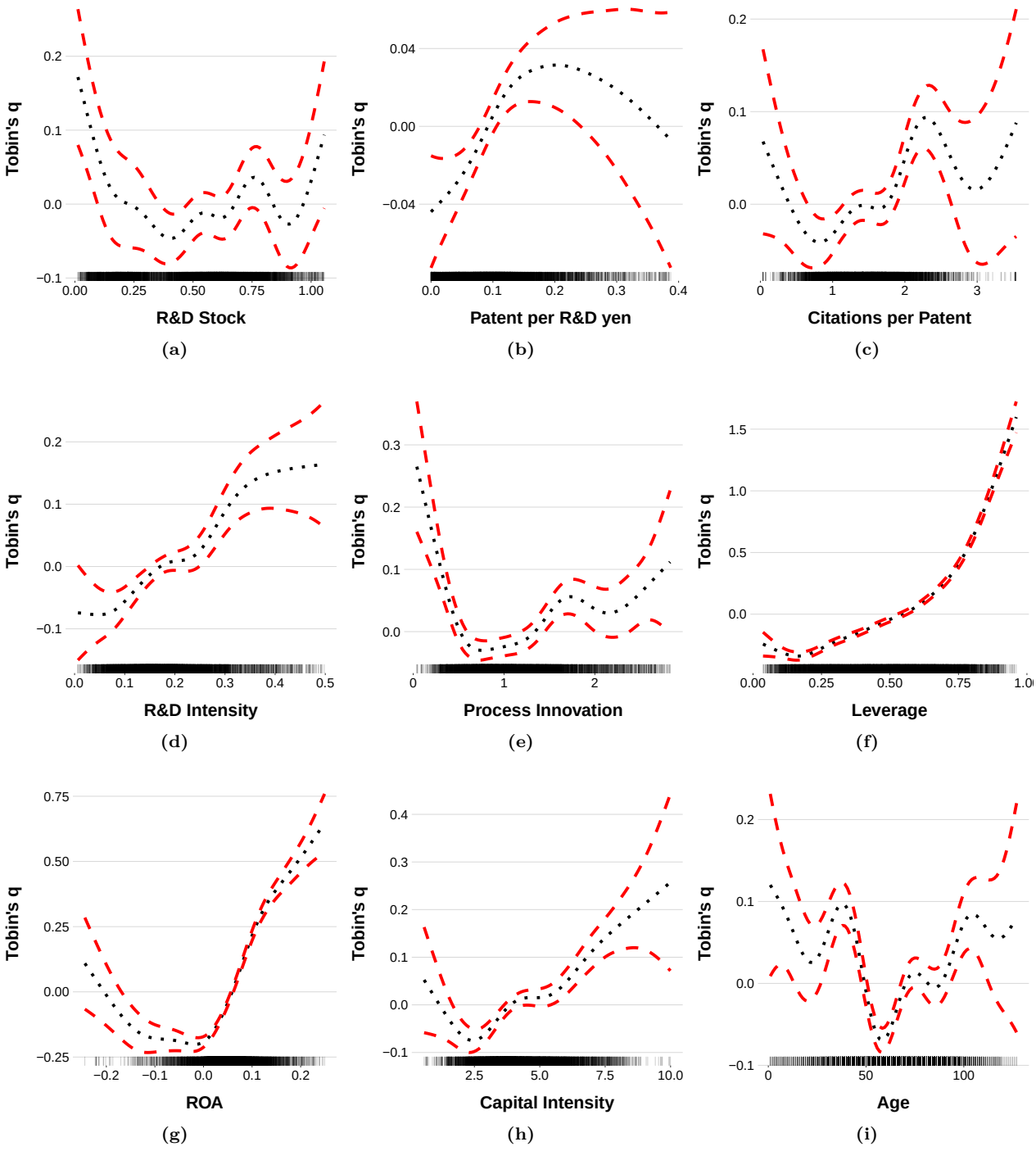


Fig. 10 Visualizations of GAMs relationships

Judged both by the overall shape of "Citations per Patent" relationship with Tobin's q (Figure 10) and by the industrial breakdown, one can distinguish peculiar nonlinear trends.[4] Firstly, despite the fact that OLS regression did not detect the association of higher Tobin's q with influential Chemical patterns (judged by their citability), Figure 11c provides such evidence. Namely, Tobin's q falls within the range of moderately-

[4]Since the variables discussed below were normalized by obtaining their square root, we need to raise them to the second power when interpreting results.

cited (0 to 3 citations) patents, but rises when citations' count is within the range between 3 and 6. Cases of nonlinearity within Electronics and Machinery also deserve our attention. For these industries, market positively evaluates the growth of citations per patent of up to 6 but becomes "indifferent" (or even occasionally pessimistic in case of Electronics) when patents are heavily cited (Figure 12c, Figure 13c). This most likely reflects reputational inertia, whereby patents are often cited due to hitherto accumulated credits rather than their present-day marketability (Duguet & MacGarvie, 2005). At any rate, with the median level of "Citations per Patent" being roughly two, and with overwhelming majority of cases falling within the range between 0 and 6, one can safely conclude (in agreement with the OLS model) that influential patents within the manufacturing sector contribute to the surge in Tobin's q.

Moreover, GAMs provide a valuable correction to the understanding of market perception of R&D assets. While the linear model identified the positive market reaction to the surge in R&D stock for all industries except Electronics, Figure 12a demonstrates that, in fact, market does appreciate R&D spending by the Electric Equipment companies when the R&D stock levels exceed 25th percentile of the observed range.

Among other notable nonlinear trajectories is the Tobin's q correlation with ROA. According to the Table 4, ROA's minimal value is -0.248, while the median is 0.041. This means that the significant portion of Tokyo Stock Exchange companies have negative ROA values. As the Figure 10 clearly demonstrates, the market perception of ROA growth within this negative range is marked by distrust. On contrary, within the positive range, the market has been, as expected, rewarding the surge in ROA. As seen from the Table 7, simple linear model does not capture this feature.

Finally, while the linear model has provided rather inconclusive evidence on the link between firms' Age and their market valuation, the GAM shows an interesting trend. Since the medium age of the companies analyzed is 59 years, it can be concluded from the Figure 10 that TSE expects companies with the age below this median value to be *less* innovative as they get older. The opposite also holds true: firms that passed the median-age threshold are seen to be more likely to generate knowledge as their age increases. In other words, new market entrants as well as the undoubtedly experienced players tend to be more attractive to investors. The former – due to their unconventional policies that can yield profits in the short-run, and the latter – owing to the accumulated reputation that comes with investment guarantees. This finding reverberates with the analysis of Lechevalier, Nishimura, & Storz (2014) who observe that for technologically advanced sectors such as robotics, where patents have high marginal value, market tends to trust older companies.

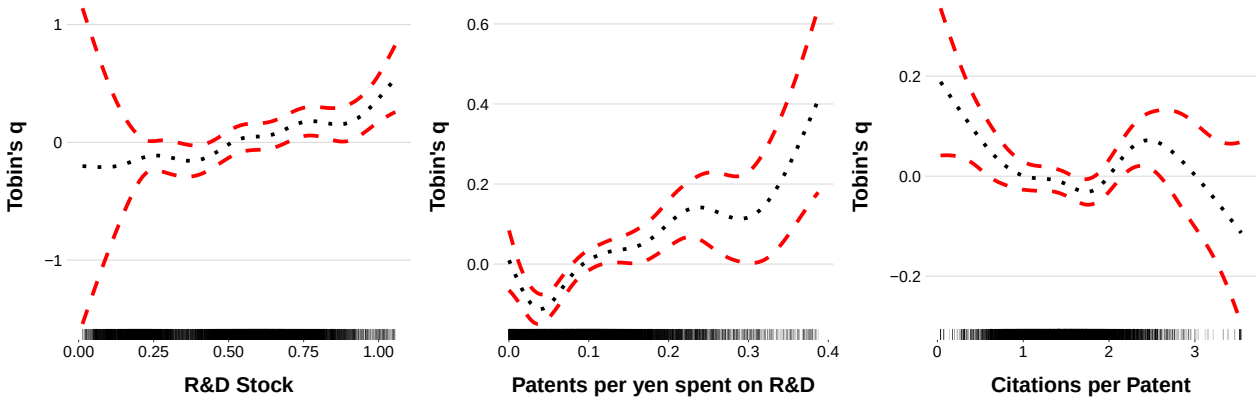
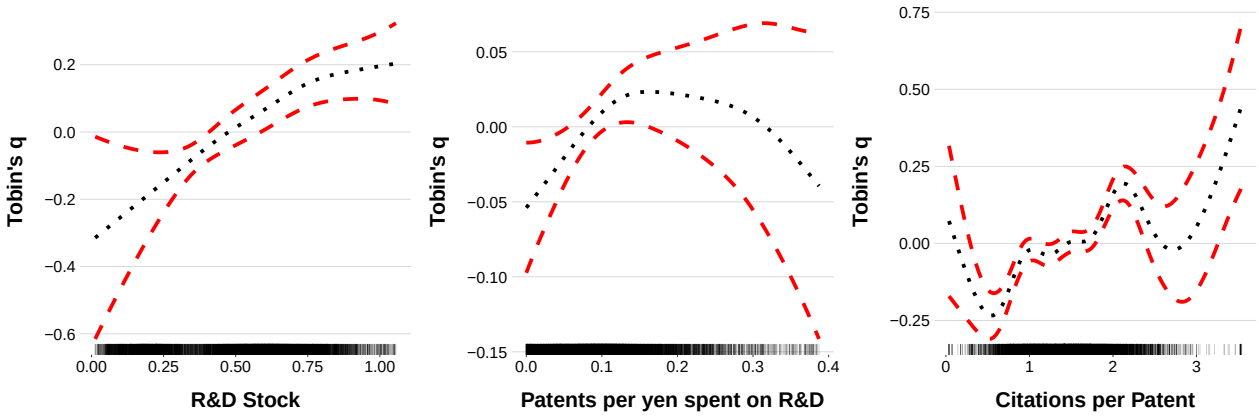
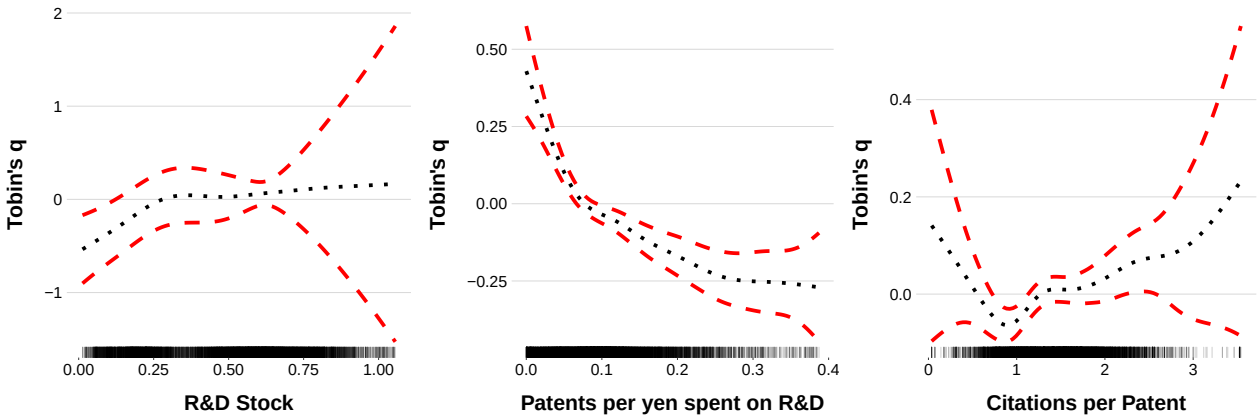


Fig. 11 Visualizations of GAMs relationships for the Chemicals



(a) (b) (c)

Fig. 12 Visualizations of GAMs relationships for the Electronics



(a) (b) (c)

Fig. 13 Visualizations of GAMs relationships for the Machinery

5 Conclusion

This paper concentrated on the issue of Tokyo Stock Exchange perception of corporate innovative activities among Japanese listed companies. While being volatile in the short-run, corporate stock provides valuable insights to present and potential investors, plus serves as an effective self-evaluating mechanism for corporate management. The choice of "Tobin's q" (calculated via dividing firm's market capitalization by its replacement value) as a dependent variable enabled me to additionally incorporate physical assets into the research design.

In spite of the long legacy of the related scholarship, my research stands out for at least three reasons. First, it fills the gap of consistently under-representing Tokyo Stock Exchange, the third-largest stock market in the world. Second, it highlights the issue of institutional change, whereby a coordinated industrial system becomes more susceptible to market influence. Third, it implements novel computational techniques for demonstrating nonlinear tendencies existing between the innovation-related predictors and the Tobin's q.

My first hypothesis deals with the *input-side* of technological innovations and their underlying institutional features. In this respect, alone the affiliation with the Pharmaceutical industry serves as a positive ex ante signal to the market. In addition, Drugs are the most R&D-intensive sector analyzed, which explains the

relative importance that market places on its R&D stocks. It also allocates a relatively high premium for the surge in the R&D spending among Chemicals that share similar characteristics with Pharmaceuticals. Thus, in case of these industries, input-based innovation variables largely stemming from institutional features play a significant role for investors even amid the intensified market competition. Institutional background also plays an important role for the manufacturing sector, which becomes apparent upon the inclusion of control variables.

My second and third hypotheses deal with the *output-side* of technological innovations. This aspect is related to the ability of successfully waging open-market competition. First, innovative productivity measured as the "Patents per yen spent on R&D" is only appreciated by the market in case of the Chemical industry. Second, this rather unexpected result becomes clearer when additionally controlling for patents' quality measured as "Citations per Patent." This variable plays a significant role for the market perception of Japan's manufacturing innovations overall, plus for investors' appreciation of relatively highly-cited Pharmaceutical and Chemical inventions. In this respect, one observes the dividing line between putting more emphasis on R&D spending for capital-intensive industries like Chemicals and Drugs on one hand, and rewarding the quality of the patented output for relatively more labor-intensive manufacturing sector on the other. When imposing additional restrictions, however, R&D spending appears to be an important innovation marker for Electronics and Machinery as well.

In a nutshell, while institutional features associated with R&D expenditures still provide valuable signals for investors across multiple industries, quality of a patented output mostly matters for the manufacturing sector. On a separate note, this paper identified a pronounced nonlinear trend in the market perception of corporate age, whereby only the more experienced companies receive market premium as they get older.

Regarding the future research on this topic, I concur with Czarnitzki, Hall, & Oriani (2006) on the need to further explore nonlinear methods for better grasping the market assessment of innovative activities. Furthermore, there exist other notable studies such as the ones by Hall & Oriani (2006), He & Wang (2009) and Peng & Jiang (2010) who include corporate ownership structures into the their predictive models. The innovation- and finance-related variables used in the current article do not fully capture the fluctuations in firms' market value, which provides a rich avenue for seeking further links between technological innovation and, among others, corporate governance.

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Regional Bank Consolidation in Japan Through the Lens of Loan Efficiency: The Case of the Kanto Region from 2008 to 2016

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Regional Bank Consolidation in Japan Through the Lens of Loan Efficiency: The Case of the Kanto Region from 2008 to 2016

Abstract

Slow lending growth and a zero-interest policy have made lending in Japan less profitable, resulting in regional bank consolidation. This study investigates the cause of this phenomenon. Using data from the Kanto region and the data envelopment analysis approach, the study determines efficiency frontiers and creates a set of benchmarks for banks' ability to convert deposits into loans (loan efficiency) and to profit from the loans (loan profitability). This helps measure the inefficiency of an individual bank relative to its benchmark, and to the industry as a whole. The model provides insights regarding opportunities to mitigate such inefficiencies.

Keywords: Data envelopment analysis, Loan efficiency model, Japan, Consolidation, Regional banks

JEL codes: G21, G28, G34

Regional Bank Consolidation in Japan Through the Lens of Loan Efficiency: The Case of the Kanto Region from 2008 to 2016

Between 1991 and 2000, Japan experienced a long period of economic stagnation—its so-called "lost decade" (Hayashi & C. Prescott, 2002; Westney, 2006). Takahashi (Takahashi, 2012) argued that Japan has been focusing on market orientation but also needs to develop a new set of institutional complementarities. Ogawa and Kitasaka (Ogawa & Kitasaka, 2000) described the determinants of bank lending and their macroeconomic implications, and concluded that the lending channel is indeed important for Japan to propagate shocks in its asset markets to the real economy. Fujii and Kawai (Kawai Masahiro & Mariko Fujii, 2010) emphasized the importance of the ability of authorities to address banking sector issues promptly, as economic stagnation can cause new nonperforming loans to emerge rapidly and deplete bank capital. However, the country's economic recovery remains substantially delayed. The Japanese banking industry has faced the primary challenges of slow lending growth and a zero-interest policy, among other issues. Hosono, Sakai, and Tsuru (Hosono, Sakai, & Tsuru, 2007) used the parametric approach and reported that the government's "too-big-to-fail" policy played an essential role in the functioning of the banking sector. Key performance indicators, including the loan-to-deposit ratio and the ratio of current income to current expenses introduced by the Japanese Bankers Association, have been deteriorating. In 2016, the Financial Service Agency (FSA) published a new report, *Progress and Assessment of the Strategic Directions and Priorities 2015–2016*, in which it stated that regional banks face difficulties in offsetting tight loan margins by increasing their

lending volume. The profitability of their simple lending business model is low and decreasing, while the ratio of nonperforming loans is low compared to both historical and other countries' levels. However, in 2017, the FSA noted that, while the ratio of nonperforming loans had improved, domestic net interest income continued to decline; this caused the interest margin to deteriorate while the interest rate risk of regional financial institutions increased. The FSA expressed concern regarding the sustainability of traditional business models and suggested the need for consolidation among regional banks.

The Japanese banking industry comprises four groups differentiated by their business function and historical background: city banks, regional banks, regional banks II (previously mutual savings banks), and trust banks (Japan Bankers Association, 2018). From 2008 to 2016 (Table 1), the overall profitability of the Japanese banking system was modest; city banks reported the lowest profitability, followed by regional banks at 72.1%. Fees and commissions accounted for most of this profit, and their contribution has increased over time; however, interest income is the primary profit driver for regional banks and regional banks II. Some studies (Deyoung & Rice, 2004) suggested the need to adopt non-interest income as a proxy for non-traditional bank activities to avoid underestimating the efficiency of banks. Focusing on traditional businesses may be inappropriate when addressing the efficiency of the banking industry as a whole. The exclusion of non-traditional businesses may deteriorate the efficiency scores and average productivity of the entire industry.

The Japanese banking industry has consolidated in response to the slow and persistent economic recovery (especially in non-metropolitan areas) and the impacts of an aging population. In 1990, there were 13 city banks, 64 regional banks, 68 regional banks II, 16 trust banks, and 3 long-term credit banks. In 2016, Japan had 5 city banks, 64 regional banks, 41 regional banks, 16 trust banks, and no long-term credit bank. Figure 1 shows the profit decomposition of Japanese banks by category. Table 1 shows that the loan-to-deposit ratio of Japanese banks declined from 75.1% in fiscal year 2008 to 67.8% in fiscal year 2016, and the ratio of current income to current expenses (profitability) decreased from 106.2% to 74.8% in the same period. Figure 1 shows that interest income accounts for 52.6% of the profits of city banks, 70.7% of the profits of regional banks, and 73.5% of the profits of regional banks II. Hence, regional banks rely on profit derived from the loan business. While the number of regional banks has not changed, several consolidation cases occurred among regional banks and regional banks II. As the business models of regional banks and regional banks II both rely on their local activities, this study combines these two groups in order to analyze the loan efficiency and productivity of regional banks. From 2004 to 2017, 19 regional bank consolidations occurred in Japan, five of which were in the Kanto region. In 2014 alone there were eight consolidations, of which four took place in the Kanto region (Table 2). Tokyo Tomin Bank and Yachiyo Bank merged in 2014 and the newly formed bank acquired Shin Gingko Tokyo in 2016. Ashikaga Bank and Joyo Bank also merged in 2014 and the Bank of Yokohama acquired Higashi Nippon Bank in 2016.

Harada and Ito (Harada & Ito, 2011) addressed several cases of industry consolidation among large banks. The authors employed the distance to default (a concept belonging to credit risk in corporate finance) of large Japanese banks after the 1990s and found that the primary objective of a merger is to take advantage of the perceived "too-big-to-fail" policy. Merger attempts caused by the intention to enhance efficiency resulted in failure to implement true operational efficiency. Harada (Harada, 2005) also found that consolidating healthy banks with unhealthy banks does not create healthy banks, just as consolidating weak banks does not strengthen them. However, only a few studies focused on Japanese bank consolidation using the data envelopment analysis (DEA) approach, and research on the cost and profitability of Japanese banks is also scarce (Altunbas, Liu, Molyneux, & Seth, 2000; Drake & Hall, 2003). While a limited number of studies have analyzed lending efficiency and profitability simultaneously, to the best of our knowledge, none have explored the relationship between loan efficiency and industry consolidation in the banking industry. Fukuyama and Webber (2015) applied a dynamic network DEA approach to measure the productivity of Japanese commercial banks from 2007 to 2010 and found that bank inefficiency decreased the size of asset portfolios. Furthermore, Loukoianova (2008) analyzed the efficiency and profitability of the Japanese banking system using DEA and concluded that the consolidation of regional banks is necessary to improve their profitability (Fukuyama & Webber, 2015).

While some researchers have analyzed lending efficiency and profitability separately, this study considers these aspects simultaneously. The results may not be reliable in cases of lending where there is little opportunity to improve the loan-to-deposit ratio, as issues regarding profitability may arise. A multidimensional approach for analyzing the loan efficiency of an individual bank would enable the bank's management to improve the bank's loan creation strategy. This study builds a loan efficiency map (Figure 2) that simultaneously measures the determinants of the relative loan efficiency of the regional banks under consideration. The loan efficiency of a bank is decomposed into two factors: lending efficiency (loan amount/deposits) and profitability (net interest income/loan amount). Using these parameters, a two-stage DEA model was applied to measure the relative distance of individual factors (the lending efficiency and profitability indices) from the industry benchmark.

The proposed model provides scores based on the interdependence of the two indices: lending and profitability. In contrast with the praxis of measuring lending efficiency and profitability separately, the proposed approach assumes that the optimized loan amount acts as an intermediary in the model and helps measure profitability if a bank lends the optimal loan amount. This study also uses two separate variable-rate scale DEA models (separate model, Figure 3) to illustrate the differences in the strategic implications when both models are employed to measure loan efficiency. The general ideas of the two models are similar except that the loan efficiency model simultaneously incorporates lending efficiency and profitability (Figure 4). Thus, this study explores the differences between the

two approaches and interprets their strategic implications for bank consolidation.

This study develops a methodology to measure the loan efficiency of Japanese banks as a proxy for the banks' performance. The aim of this research is to explore how the regional bank consolidations can be analyzed based on multidimensional bank lending efficiency using two features simultaneously: lending efficiency and profitability. Thus, our research question is whether the corporate action of merged banks can be rationalized through the lens of loan efficiency, or whether the merged banks compound their inefficiency with respect to lending and profitability relative to the regional benchmark bank in order to compete in the region. If this question is justified, such a measure may help the banks' management evaluate the strategic implications of their loan business and enable bank outsiders, including regulators and investors, understand the consequences of bank consolidation. The study applies two quantitative models to demonstrate the importance of measuring both lending efficiency and profitability simultaneously.

The subject of this study is regional banks, which specialize in more traditional banking activities compared to city banks. The analysis focuses on the Kanto region, as all merger and acquisition events among regional banks in Japan occurred in this region. The Kanto region is the geographical area of Honshu, Japan's largest island, which comprises seven prefectures: Gunma, Tochigi, Ibaraki, Saitama, Tokyo, Chiba, and Kanagawa. This area accounts

for 45% of the gross domestic product of Japan, which was the world's seventh largest economy in 2013, and 40.9% of the country's population (Kanto Bureau of Economy, Trade, and Industry, 2018). Luo and Yang (Luo & Yang, 2015) investigated the relationship between environmental factors and a bank's efficiency and concluded that some regional factors, such as personal income, have a significant influence on the productivity performance of banks in the United States.

Data and Methodology

The DEA approach is based on linear programming and is often used for evaluating relative performances and for benchmarking purposes. Originally developed by Charnes, Cooper, and Rhodes (Charnes, Cooper, & Rhodes, 1978), the DEA approach requires neither prior knowledge of the production function nor profit maximization. DEA is widely applied in studies on efficiency issues in the field of banking, such as Loukoianova (Loukoianova, 2008) and Garza-García (Garza-García, 2012). While these authors used a two-stage DEA approach, their models present the result as two sub-results. In this study, lending efficiency and profitability are measured separately (Figure 5) and a two-stage DEA model is then used, as in the study by Chen and Zhu (Chen & Zhu, 2004), which seamlessly incorporates both stages of the DEA (Figure 6). This approach is adopted to create a model that uniquely captures the individual bank's loan efficiency while incorporating the characteristics of the banking industry. The proposed approach utilizes efficient frontiers and a set of benchmarks for both the bank's ability to convert deposits into loans

(loan efficiency) and its capacity to profit from the loans (loan profitability). Hence, the model makes it possible to measure the relative inefficiency (expressed in terms of distance) of the individual bank compared to its benchmark. Lending efficiency conveys the efficiency with which a bank grants a loan given its deposits, and profitability expresses how effectively a bank profits from its loans given the total amount of loans granted. For each factor, a score relative to the industry benchmark is calculated. This makes it possible to measure the loan efficiency of each bank relative to that of the banking industry as a whole and to investigate corporate behavior in this domain.

After their DEA scores are mapped, banks can be classified into four groups (Figure 2). The first group represents the benchmark banks. Their location with respect to the origin of the map indicates optimal lending efficiency and profitability. Banks in the second group are located above and to the left of the origin, meaning that these banks may be unable to convert their deposits to loans. Banks located below the origin constitute the third group; despite having high lending efficiency, they are not effective in terms of profitability. Banks in this group may not focus on loan profitability at all. The fourth group comprises banks distant from the origin. This group is characterized by difficulties in lending and profitability relative to their benchmark, which undermine their corporate value.

The bank intermediation approach adopted for a selection of variables assumes that the bank uses deposits to produce loans (Sealey & Lindley, 1977). As mentioned above, the loan efficiency models require three variables:

outstanding deposit amounts, loan amounts, and interest income for the specified year. This analysis of the Japanese banking industry only considered 16 regional banks in the Kanto region up through 31 March 2013; after 2014, nine banks were involved in three subsequent consolidations. Shin Tokyo Bank has been discarded because it was not a listed bank. To measure changes in loan efficiency using the loan efficiency model, one input and two output variables were selected: the banks' deposits represent the sole input variable, and the total net loan amounts and net interest income are the two output variables. These data were collected from the 16 publicly traded banks' annual reports for fiscal year 2013. The total net loan amounts are also treated as inputs for the profitability measure after the optimized loan amount for an individual bank is calculated as the intermediary variable rather than the output variable. Under the two separate DEA models, the same variables are employed; however, this approach uses the loan amounts as the raw data. Table 3 shows the descriptive statistics of the variables used in the analysis.

Results and Discussion

Table 4 shows the banks' lending efficiency and profitability indices in 2014 under both models, while Figure 7 presents the loan efficiency map. Two banks (Bank of Yokohama and Kanagawa Bank) scored high with regard to both lending efficiency and profitability in the separate model (Region 1), while the remaining banks (except Musashino Bank and Tokyo Star Bank) were inefficient in both domains (Region 4). Musashino Bank was in Region 2, meaning that the bank's lending was efficient, but its profitability was low compared to other regional banks in

Kanto. Musashino Bank is roughly 21% less efficient than the benchmark. On the other hand, Tokyo Star Bank, which was in Region 2, managed its profitability well but should improve its lending strategy. Tokyo Star Bank's lending efficiency was 8% lower than the benchmark. The remaining banks had issues in both lending and profitability. For example, Yachiyo Bank, which later merged with Tokyo Tomin Bank, was 18% less efficient in lending and 29% less efficient in profitability than the benchmark. Tokyo Tomin Bank was also less efficient than its benchmark in both lending (by 7.4%) and profitability (by 36%). Based on the separate model, it is difficult to justify their merger as both banks were inefficient in both domains. A similar analogy is applied to the merger of Joyo Bank and Ashikaga Bank.

The loan efficiency model indicates that two banks (the Bank of Yokohama and Kanagawa Bank) were efficient in both domains and hence remained in Region 1. Five banks (Gunma Bank, Joyo Bank, Towa Bank, Higashi Nippon Bank, and Yachiyo Bank) were efficient in lending but inefficient in profitability (Region 2); and five banks (Musashino Bank, Tokyo Star Bank, Ashikaga Bank, Chiba Bank, and Keiyo Bank) were profitable but not efficient in lending (Region 3). Four banks (Tsukuba Bank, Chiba Kogyo, Tokyo Tomin, and Tochigi Bank) were inefficient in both domains and remained in Region 4. Under the loan efficiency model, Musashino Bank was 23% less efficient in lending compared with the benchmark, but its profitability was in line with that of the benchmark; this bank has focused on profitability at the cost of deposit utilization. Tokyo Tomin Bank remained less efficient than

the benchmark in both lending (19%) and profitability (26%). Similarly, Ashikaga Bank was efficient in terms of profitability but not in lending, and Joyo Bank was efficient in lending but 37% less efficient than the benchmark in terms of profitability.

Table 5 provides a list of banks, including banks that merged after 2014, along with their respective positioning in the models. Five banks (Gunma Bank, Joyo Bank, Towa Bank, Higashi Nippon Bank, and Yachiyo Bank) were marked as Region 4 under the separate model and shifted to Region 2 in the loan efficiency model. The separate model, which measures lending efficiency and profitability separately, suggests that these banks should review their entire loan strategy, whereas the loan efficiency model leads to the strategic implication that they should improve their profitability without reconsidering their lending strategy. This finding indicates that, given the fierce competition in the Kanto region, the best approach to enhance a bank's profitability is to reduce costs and find more profitable segments through consolidation. Three banks (Keiyo Bank, Ashikaga Bank, and Chiba Bank) shifted from Region 4 to Region 3. These banks were inefficient in both domains under the separate model, but the loan efficiency model leads to the strategic implication that they should improve their lending strategy without sacrificing profitability. To enhance their lending capability, these banks should seek to expand further regionally or to offer their customers more loan types. Only Musashino Bank shifted from Region 2 to Region 3. This bank's issue under the separate model was profitability, but under the loan efficiency model its priority was to improve its lending

strategy.

The above interpretation leads to the following strategic implication for merged banks: Ashikaga Bank, which was in Region 4 in the separate model and in Region 3 in the loan efficiency model, merged with Joyo Bank, which was in Region 4 and Region 2, respectively. Under the separate model, there was no benefit from the consolidation with respect to lending efficiency as both banks were inefficient in both domains; however, the loan efficiency model suggests that a possible strategic implication is the mitigation of their weaknesses. Ashikaga Bank was inefficient in terms of lending but efficient in profitability, while Joyo Bank was inefficient in profitability but efficient in lending. Furthermore, as both are in the same prefecture, this may create a possible synergy.

A merger between Tokyo Tomin Bank and Yachiyo Bank has similar implications. Tokyo Tomin Bank was inefficient in both lending and profitability while Yachiyo Bank was inefficient in lending but efficient in profitability. Although this merger was not enough to improve both lending and profitability at the same time, a synergy could be possible as both banks are based in Tokyo. The newly created bank later merged with Shin Gingko Tokyo, and began operating in April 2005 as a project of the former governor of Tokyo, Shintaro Ishihara, to save small businesses in need of funding from banks. In three years, the bank accumulated a deficit of over 100 billion yen. Finally, Tokyo TY Financial Group rescued the bank, and the metropolitan government ended its direct

involvement. The merger has helped the group expand its customer base and mitigated the weaknesses of the three banks by creating a group synergy.

Finally, the Bank of Yokohama, which was efficient in both domains and had a strong presence in Kanagawa Prefecture, adjacent to Tokyo, acquired the Higashi Nippon Bank, which had a relatively strong presence in Tokyo. Higashi Nippon Bank addressed its poor lending efficiency by expanding geographically. Similarly, the Bank of Yokohama benefited from entering the Tokyo loan market.

Based on the loan efficiency model, the following suggestions can be made for non-merged banks. Kanagawa Bank, which is efficient in both domains, should not change its business model. Gunma Bank and Towa Bank, both based in Gunma prefecture, were efficient in lending but inefficient in terms of profitability, and should enhance their profitability by shifting to a fee revenue model and seeking a profitable segment. Chiba Bank and Keiyo Bank, both based in Chiba prefecture, and Musashino Bank and Tokyo Star Bank were efficient in profitability but not in lending efficiency. These banks should improve their loan efficiency by expanding regionally and converting deposits to other financial products, such as mutual funds. Later in 2019, Chiba Bank entered into a comprehensive tie-up with the Bank of Yokohama. Tsukuba Bank and Tochigi Bank, both based in Tochigi prefecture, and Chiba Kogyo Bank were inefficient in both domains; thus, they should review their current business models and seek an

alternative strategy.

Conclusions

Researchers and authorities have questioned the traditional Japanese banking business model, and some have argued that the lending business may be unsustainable due to the country's socioeconomic dynamics. Consequently, several regional consolidations occurred. In this study, I have attempted to analyze the consolidation of banks based in the Kanto region through a multidimensional simultaneous loan efficiency model using the parameters of deposits, loans, and net interest income. The proposed framework is unique in that it simultaneously incorporates these two criteria into one model and solves for the relative efficiency of individual banks.

Applying the loan efficiency model, complementing of the loan inefficiency of lending efficiency, lending efficiency and profitability is a possible explanation for the industry consolidation, many other factors besides loan efficiency may play a role in this process. Another limitation of this study is that DEA is sensitive to its context, and the loan efficiency model does not factor in risks such as default risk. In this regard, Drake et al. (2009) highlighted the importance of incorporating risks and loan quality, which constitutes a step forward toward modifying the loan efficiency model. Fukuyama and Webber (2014) mentioned in their work that performance measures are likely to be biased when productivity performance is assessed over a single period. Hence, it is essential to measure loan efficiency over multiple time periods to investigate a bank's behavior with regard to its loan strategy. Despite these limitations,

the loan efficiency model provides insight into the current status of regional banks' loan efficiency and enables a bank's management to identify a strategic decision-making rationale. Future research should address the link between the characteristics of the individual loan efficiency model and the prefecture.

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Table 1

Loan-to-Deposit Ratio and Ratio of Current Income to Current Expenses

	All Banks		**City Banks**		**Regional Banks**		**Regional Banks II**		**Trust Bank**	
	Loan-to-deposit ratio	Ratio of current income to current expenses	Loan-to-deposit ratio	Ratio of current income to current expenses	Loan-to-deposit ratio	Ratio of current income to current expenses	Loan-to-deposit ratio	Ratio of current income to current expenses	Loan-to-deposit ratio	Ratio of current income to current expenses
FY2008	75.1	108.5	75.3	106.2	74.3	102.5	76.3	130.1	76.1	100.9
FY2009	73.2	84.9	71.7	83.8	73.6	83.3	75.6	94.0	80.2	81.3
FY2010	70.0	79.0	66.4	74.9	71.9	81.6	74.9	88.4	80.0	80.8
FY2011	68.9	75.3	65.3	71.1	70.8	77.9	73.7	84.5	77.9	79.3
FY2012	69.1	74.2	65.7	70.8	70.9	77.1	73.2	84.5	77.4	75.1
FY2013	69.1	68.0	66.5	63.8	70.3	72.7	72.7	74.0	76.1	70.4
FY2014	68.7	68.0	65.7	65.6	70.6	70.7	72.6	75.8	75.3	67.3
FY2015	68.4	70.1	64.4	69.2	71.0	70.6	73.2	76.9	76.9	68.9
FY2016	67.8	75.9	62.2	74.8	72.1	75.7	74.2	80.6	78.9	79.1

Table 2

Regional Bank Consolidation after 2014

Year	New Bank		Merged Bank			
	Name	Location	Name	Location	Name	Location
2014/4	***Tokyo TYFG***	***Tokyo***	***Tokyo Tomin Bank***	***Tokyo***	***Yahchiyo Bank***	***Tokyo***
2014/4	***Concordia FG***	***Kanagawa***	***Bank of Yokohama***	***Kanagawa***	***Higashi Nippon Bank***	***Tokyo***
2014/10	***Mebuki FG***	***Tokyo***	***Ashikaga Bank***	***Tochigi***	***Joyo Bank***	***Ibaraki***
2015/4	Kyushu FG	Kumamoto	Higo Bank	Kumamoto	Kagoshima Bank	Kagoshima
2016/4	***Tokyo TYFG***	***Tokyo***	***Tokyo TYFG***	***Tokyo***	***Shin Ginko Tokyo***	***Tokyo***
2016/4	Tomony HD	Kagawa	Tomony HD	Kagawa	Taisho Bank	Osaka
2016/10	Nishi Nippon FHD	Fukuoka	Nishi Nippon City	Fukuoka	Nagasaki Bank	Nagasaki
2018/4	33 FG	Mie	Mie Bank	Mie	Daisan Bank	Mie

FG = , FHD =, HD = , TYFG = .

Table 3

Bank Deposits, Total Loans, and Net-Interest Income in 2014 (million yen)

Name	**Location**	**Deposits**	**Loans**	**Net Interest Income**
Ashikaga Bank	Tochigi	4,686,264	3,641,006	59,665
Chiba Bank	Chiba	9,376,500	7,581,708	125,491
Chiba Kogyo Bank	Chiba	2,117,799	1,616,159	27,078
Gunma Bank	Gunma	5,644,940	4,111,013	66,240
Higashi Nippon Bank	Ibaraki	1,720,266	1,371,533	29,619
Joyo Bank	Kanagawa	7,266,636	4,982,564	76,733
Kanagawa Bank	Chiba	402,071	285,871	6,718
Keiyo Bank	Saitama	3,482,903	2,522,451	47,628
Musashino Bank	Saitama	3,516,200	2,867,330	48,328
Tochigi Bank	Tochigi	2,345,705	1,651,144	31,072
Tokyo Star Bank	Tokyo	2,083,754	1,543,165	38,417
Tokyo Tomin Bank	Tokyo	2,354,674	1,760,872	30,520
Towa Bank	Gunma	1,674,013	1,249,949	23,623
Tsukuba Bank	Ibaraki	2,009,867	1,490,749	30,522
Yachiyo Bank	Tokyo	2,055,422	1,340,597	25,748
Bank of Yokohama	Kanagawa	11,091,562	9,017,178	152,037

Table 4

Lending Efficiency and Profitability Indices in 2014

Name	Separate model		Loan efficiency model	
	Lending efficiency	**Profitability**	**Lending efficiency**	**Profitability**
Ashikaga Bank	0.9537	1.1784	0.7697	1.0000
Chiba Bank	0.9943	1.0376	0.9535	1.0000
Chiba Kogyo Bank	0.9476	1.4597	0.9060	1.4188
Gunma Bank	0.8943	1.1693	1.0000	1.2805
Joyo Bank	0.8424	1.1821	1.0000	1.3662
Kanagawa Bank	1.0000	1.0000	1.0000	1.0000
Keiyo Bank	0.8901	1.1192	0.7608	1.0000
Musashino Bank	1.0000	1.2115	0.7694	1.0000
Higashi Nippon Bank	0.9951	1.1509	1.0000	1.1570
Tochigi Bank	0.8735	1.2892	0.8180	1.2364
Tokyo Star Bank	0.9208	1.0000	0.9208	1.0000
Tokyo Tomin Bank	0.9264	1.3672	0.8149	1.2587
Towa Bank	0.9349	1.3133	1.0000	1.4097
Tsukuba Bank	0.9232	1.2154	0.9547	1.2587
Yachiyo Bank	0.8146	1.2937	1.0000	1.5589
Bank of Yokohama	1.0000	1.0000	1.0000	1.0000

Table 5

Strategic Implications for Mergers in the Kanto Region

Name	Region		Merged Bank	Region	
	Separate	Loan Efficiency		Separate	Loan Efficiency
Ashikaga Bank	4	3	Joyo Bank	4	2
Chiba Bank	4	3			
Chiba Kogyo Bank	4	4			
Gunma Bank	4	2			
Higashi Nippon Bank	4	2	Bank of Yokohama	1	1
Joyo Bank	4	2	Ashikaga Bank	4	3
Kanagawa Bank	1	1			
Keiyo Bank	4	3			
Musashino Bank	2	3			
Tochigi Bank	4	4			
Tokyo Star Bank	3	3			
Tokyo Tomin Bank	4	4	Yachiyo Bank	4	2
Towa Bank	4	2			
Tsukuba Bank	4	4			
Yachiyo Bank	4	2			
Bank of Yokohama	1	1	Higashi Nippon Bank	4	4

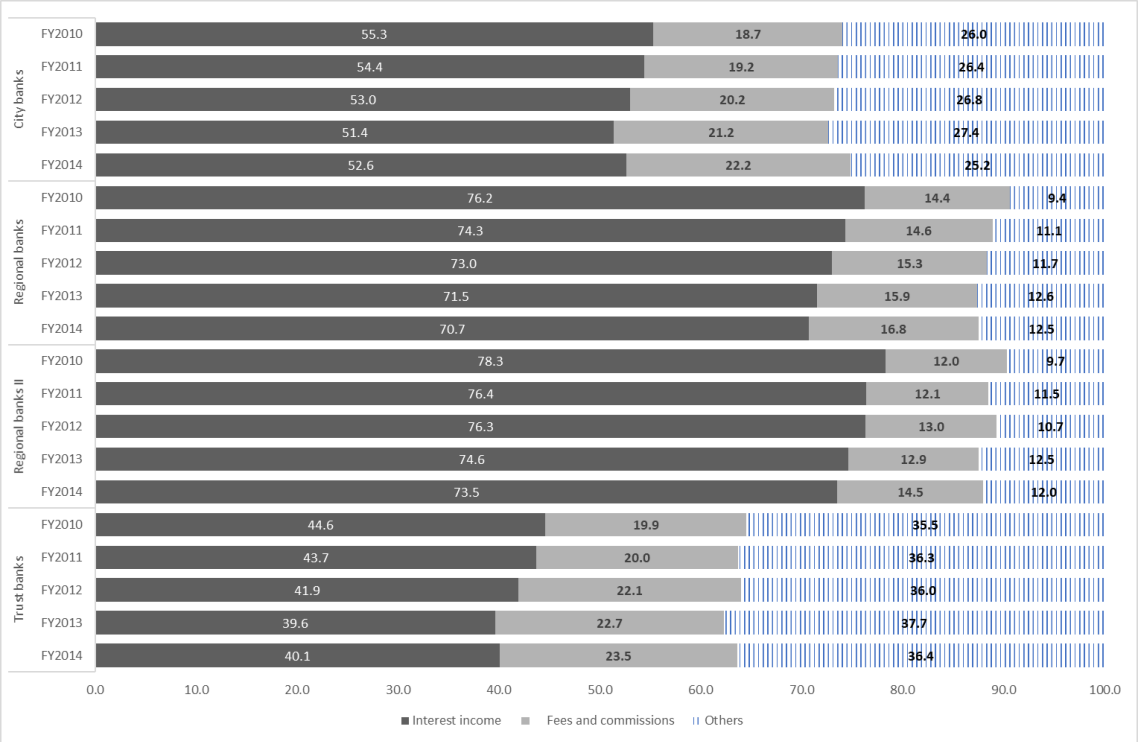

Figure 1. Profit breakdown by category based on Japanese banking classifications.

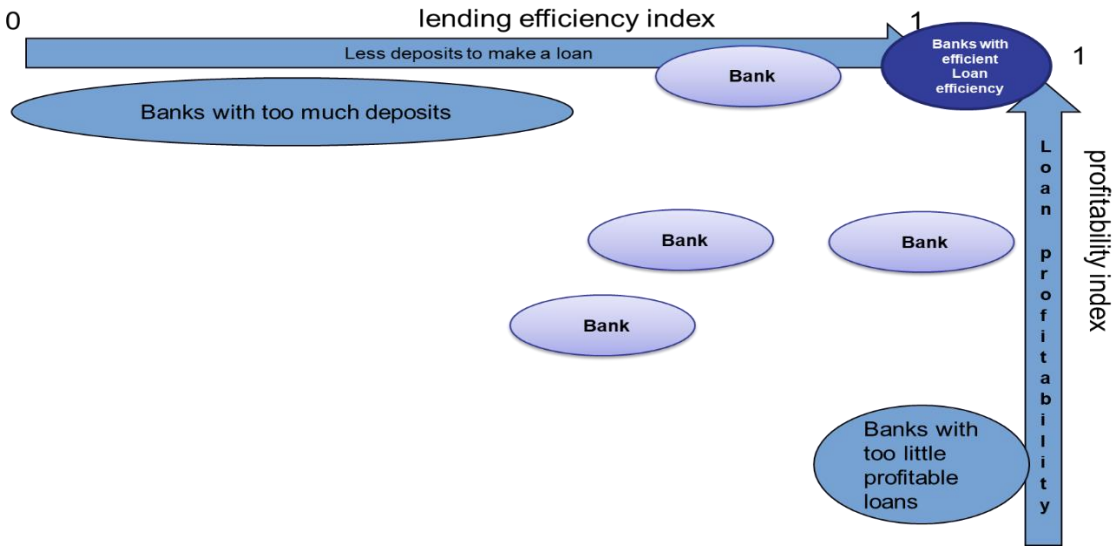

Figure 2. Loan efficiency map.

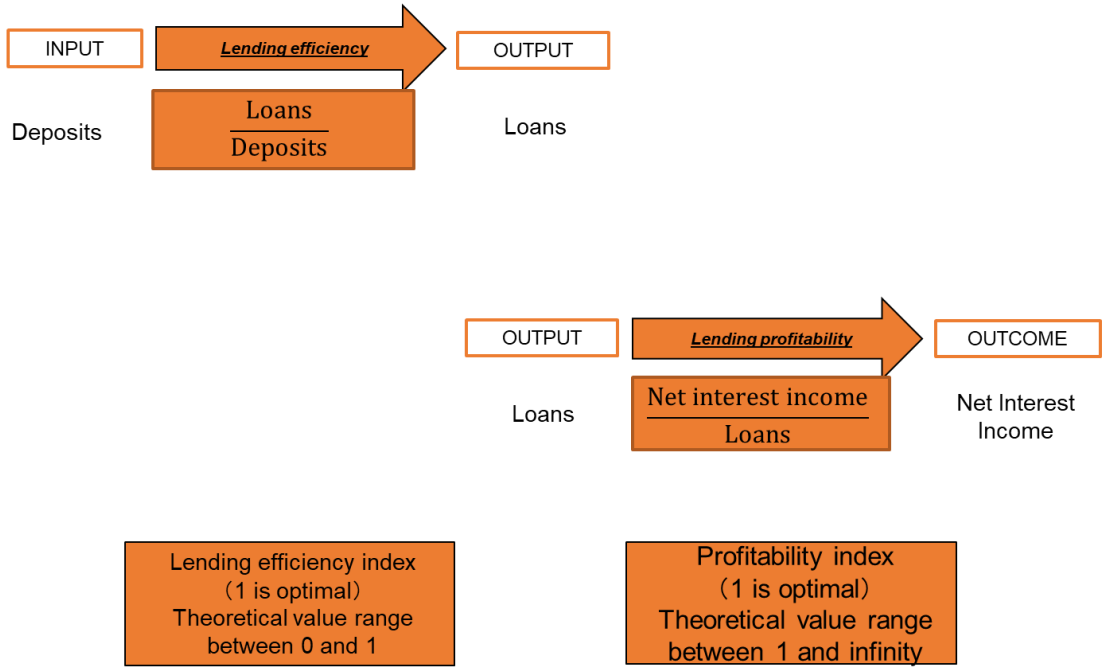

Figure 3. Schematic view of loan efficiency based on the separate model.

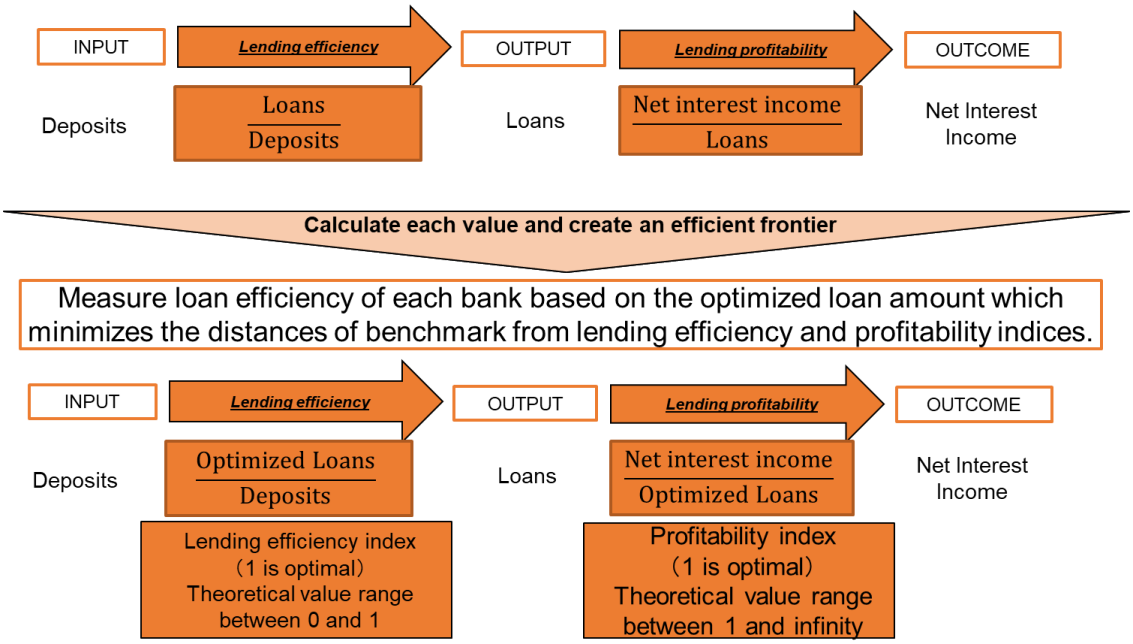

Figure 4. Schematic view of loan efficiency based on the loan efficiency model.

Min $\propto_i$	Max β_i
Subject to $\sum_{j=1}^{n} \lambda_j x_j \leq \propto_i x_i$ $\sum_{j=1}^{n} \lambda_j y_j \geq \propto y_i$ $\sum_{j=1}^{n} \lambda_j = 1$ $\propto_i \leq 1$ $\lambda_j \geq 0, j = 1, ..., n$	Subject to $\sum_{j=1}^{n} \lambda_j y_j \geq \beta_i y_i$ $\sum_{j=1}^{n} \lambda_j z_j \leq \beta z_i$ $\sum_{j=1}^{n} \lambda_j = 1$ $\beta_i \geq 1$ $\lambda_j \geq 0, j = 1, ..., n$
$\propto_i$ is the lending efficiency index of the ith bank λ_j is a weight of the jth bank when calculating $\propto_i$ n is the number of selected banks x_j is the total deposits of the jth bank y_j is the total amount of loans of the jth bank	β_i is the profitability index of the ith bank λ_j is a weight of the jth bank when calculating β_i n is the number of selected banks y_j is the total amount of loans of the jth bank z_j is the net interest income of the jth bank

Figure 5. Separate model.

Min $\propto_i - \beta_i$
Subject to $\sum_{j=1}^{n} \lambda_j x_j \leq \propto_i x_i$ $\sum_{j=1}^{n} \lambda_j y_j \geq \emptyset_i$ $\sum_{j=1}^{n} \mu_j y_j \leq \emptyset_i$ $\sum_{j=1}^{n} \mu_j z_j \geq \beta_i z_i$ $\sum_{j=1}^{n} \lambda_j = 1, \ \sum_{j=1}^{n} \mu_j = 1$ $\propto_i \leq 1, \ \beta_i \geq 1$ $\lambda_j, \mu_j \geq 0, j = 1, ..., n$
$\propto_i$ is the lending efficiency index of the ith bank β_i is the profitability index of the ith bank λ_j is a weight of the jth bank for $\propto_i$ μ_j is a weight of the jth bank for β_i n is the number of selected banks x_j is the total deposits of the jth bank y_j is the total amount of loans of the jth bank z_j is the net interest income of the jth bank

Figure 6. Loan efficiency model.

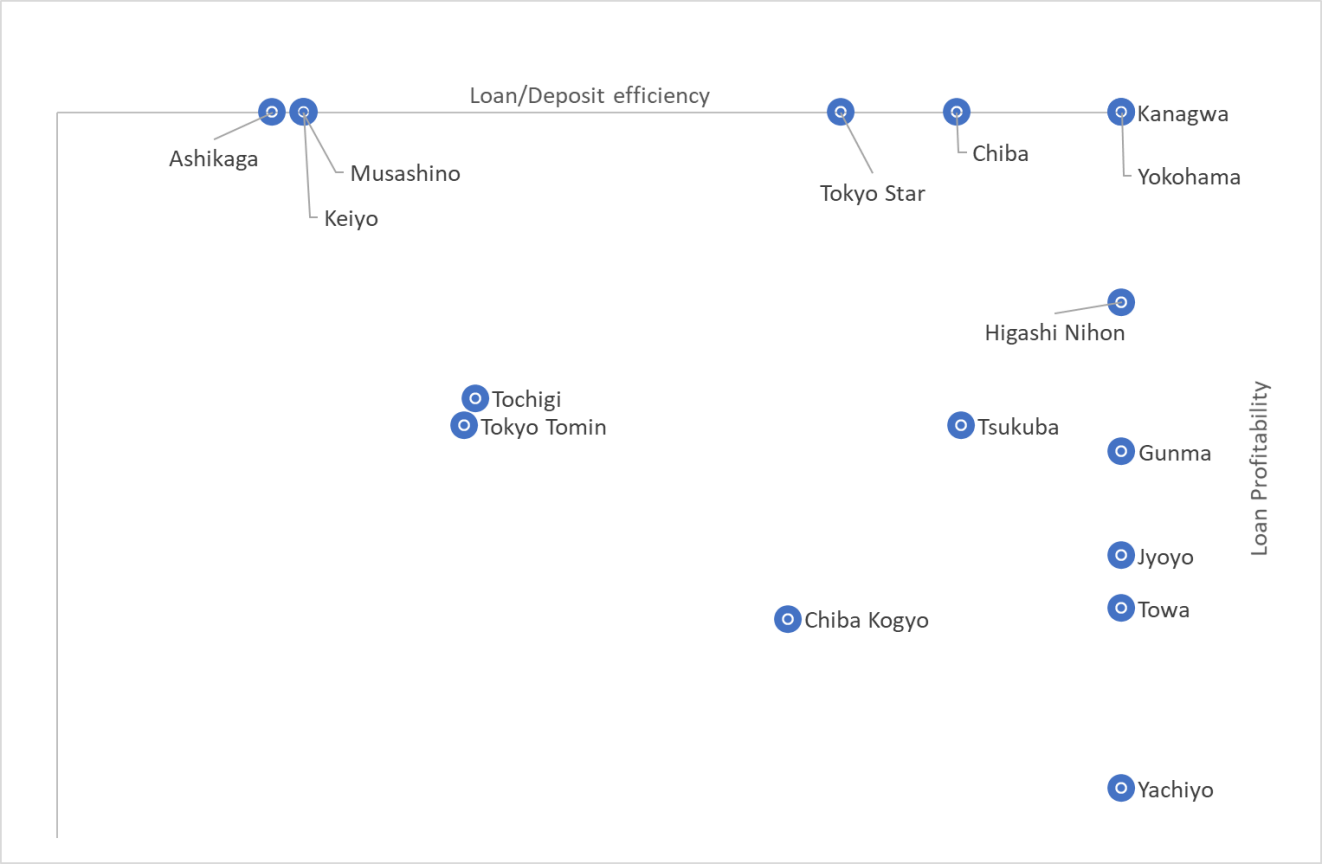

Figure 7. Loan efficiency map for Japanese regional banks in the Kanto region.

Japanese Business Reinvention in Europe: The case of Sweden

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Japanese Business Reinvention in Europe: The case of Sweden

ABSTRACT

With the turmoil associated with the Brexit vote in 2016, many Japanese MNCs started to prepare for relocating their activities out of the UK. Japanese MNCs had already a long history of investments in Europe. Japanese FDIs, ranging from being natural resource-seeking to strategic asset-seeking investments, to the EU can also be seen as a result of an organizational and managerial reorientation of the Japanese corporate landscape that did start by mid-1990s as a direct result of the bursting of the Bubble economy.

In this context, Japanese acquisitions at the periphery of the EU is little known. In this study, we are taking Sweden as an example of a highly developed European industrial nation, home of several world-leading companies. We are analyzing four major Swedish companies acquired by large Japanese MNCs in the 2000s from locational, managerial, and R&D perspectives.

Our results suggest that the Japanese parent MNCs have let the acquired Swedish firms be highly autonomous, allowing them to independently decide on operational issues, business decisions and R&D. We observe high level of trust and respect for the Swedish firms' market and product knowledge and competencies while refraining from a heavy-handed HQ management by control and fiat.

INTRODUCTION

Europe has traditionally been one of the main destinations for export and direct investment by Japanese firms in the process of continuous internationalization and deeper integration in global value chains. There has in this respect recently been a need, as seen from Japan's perspective, to balance the country's current large dependence on an unpredictable USA after the collapse of the Trans-Pacific Partnership endeavor, and, in the near abroad, the tense and vulnerable commercial relationships with an ever growing and more powerful China and an aggressively competing South Korea with a "third leg" represented by Europe. The successful negotiations regarding the free trade section of an Economic Partnership Agreement with the European Union that were brought into force in early 2019, can be seen as an instrument to carry out such a geopolitically better-balanced trade and investment policy, aiming at securing and consolidating the position of Japan's global firms at the European market. The second phase of the EPA, an investment treaty, is currently under negotiation.

The traditional main destination of Japanese FDI in Europe has been the United Kingdom. The mix of being a large marketplace in itself, the advantage of English as the commercial language and Great Britain's usually favorable regulation practices for foreign enterprise, particularly in relation to regional policy preferences, has put Great Britain into a natural position of being not only the preferred stepping stone for Japanese business firms in Europe, but also for further exports to the European Single Market of more than 500 million consumers. With the UK decision to leave the EU, however, the European strategy of Japanese firms located in Great Britain has come into question. This development has generated a discussion on finding alternative options, preferably in the Benelux and Germany, but also in lower-cost locations in Central and Eastern Europe.

The changed geo-economic structure of the European market for Japanese firms could facilitate a transformation of the industrial footprint. Finding the right setting of operations will be of great importance for Japanese firms to utilize the full benefits from the EPA. Japan and the UK recently

signed an FTA (GOV.UK, 2020), which is essentially similar to the previously concluded EU-Japan EPA, but in reality, the outcome will be dependent on the future development of economic relationships between the EU and the UK. Since the UK been a substantial host market for investment from Japan, particularly from the 1980s and onwards (Morris, 1988; Hood et al., 1994), the future of these investments is connected to the overall locational strategy of Japanese firms within the European Single Market. On the basis of reconfiguration and strategic impact of changes in the relationships within the European Single Market, one opportunity that has not been featured in the debate has been the Scandinavian countries. Japanese companies have since several decades identified suitable acquisition candidates among highly advanced and often technologically leading firms, often within the capital goods sector. Some of these firms have under the new Japanese ownership become platforms for exports to the entire European market. Generally, small and medium-sized firms have been the main targets for acquisition, but in late 2018, the largest Japanese investment in Scandinavia was concluded through Hitachi's purchase of the power grid division of the Swedish/Swiss engineering giant firm ABB at a stated price of USD 11 billion, and with its main production and R&D facilities located in Sweden and a well-developed international presence. This deal may signal an increased activity among Japanese companies to consolidate their position in the European Single Market, and has also put the focus on further steps to broaden their geographical scope outside the largest European markets. The investment follows a path of change within the Japanese business environment domestically as well as abroad. In the aftermath of the bust of the real estate and stock market bubble Japan has experienced decades of slow growth, and challenges within business sectors and specific business groups have become apparent (Nakamura, 2005). However, there are signs of strategic repositioning to take advantage of new business opportunities. In a recent contribution to the understanding of change, Schaede (2020) calls this development for business reinvention built on an aggregate niche strategy.

RESEARCH QUESTIONS AND METHODOLOGY

Through combining conceptual issues of strategy, location and political economy, the paper positions the ongoing development of Japanese investments within the European Single Market in a wider perspective reflecting on future implications of change within Japanese firms and industrial dynamics of Europe. The aim of this paper is to explore how business reinvention and structural shift of operations in Europe are changing, by studying a set of investment in the case of Sweden. In this paper, we also introduce the concept "stepping stone" differently than, e.g., Carstairs and Welch (1982), by defining the concept as a more careful but systematic international expansion and entry strategy for MNCs as compared to, e.g., the springboard internationalization strategy of emerging market MNCs (e.g., Luo & Tung, 2007; 2018), which captures the idea expressed by Schaede (2020).

Our information of companies consists of deep interviews[1] with four of the main Japanese-owned firms in Sweden carried out 2017/2018, triangulated with open-source company information from company home pages and the Factiva and Capital IQ databases. The triangulated data was also compared to survey data of all Japanese manufacturing firms in Sweden 1993-1994 (Alvstam & Ivarsson, 1996) in order to capture the dynamic process of Japanese acquisition strategies in Europe in general and Sweden in particular. Sweden being an open and trade dependent economy within the European Single Market, in combination with a base of advanced production of goods and services, the development of Japanese investments in Sweden can also act as a proxy for wider strategic implication at the European level. Hence, the specific research questions to be assessed are all found within the areas of business reinvention and location:

i. Have the acquired companies been given a broader responsibility to cover a larger market?
ii. Has the degree of autonomy for the acquired company within the parent corporation's global organization changed?

[1] The average length of each interview was 90 minutes, conducted at the subsidiary production sites in Sweden.

iii. Has the acquired companies' role regarding research & development in the parent corporation's global organization changed?

THE CONTEXTUAL BACKGROUND FOR JAPANESE FIRMS IN SWEDEN AND EUROPE – A HISTORICAL PERSPECTIVE

As seen from Japan's horizon, Sweden has traditionally been viewed as a small nation in the Northern European periphery, although being a technologically and economically an advanced economy with a number of globally successful enterprises, and therefore still an interesting commercial partner. During the long period of rapid Japanese economic growth after the Second World War, a number of early mutual commercial relations were established with Swedish industry, particularly within the engineering sector, at the same time as the Swedish prime export sectors within the forest and metal industry found an attractive market in Japan. The pole position of Swedish manufacturing, escaping the devastation of the Second World War, led to an initial competitive advantage compared to other European nations in the building up of Japanese industry, when Sweden was overrepresented in Japan's post-war foreign trade with Europe, particularly in Japanese imports. This strong starting position declined as the larger European economies recovered, particularly Western Germany. Nevertheless, Swedish industry retained a strong relationship with Japanese partners, and were early to re-establish local production through own subsidiaries, many of them had been in Japan well before the outbreak of the Second World War.

During the 1960s and 70s, the Japanese manufacturing sector became gradually more competitive in the European market, continuously upgrading production from initial low-cost manufacturing and alleged copying of Western technology, to a level that in many sectors was equal to and sometimes well above European industry quality standards at a competitive price. Furthermore, the Japanese exports were supported by an undervalued currency with a fixed exchange rate of JPY 360 per USD, which was maintained until the collapse of the Bretton Woods system in 1972 (Flath, 2014). Accordingly, most European countries, and Sweden was no exception, commenced to suffer ever

larger mutual trade deficits with Japan in their respective bilateral balances of trade in goods. Japan grew continuously as a country of origin for Swedish imports to a peak of 6.4 per cent of the total import value in 1988. During this time, the commercial relations were mainly limited to trade through own sales subsidiaries. In the mid-1980s there were about 80 Swedish subsidiaries in Japan, of which 15 with local manufacturing, while there were about 20 Japanese companies active in Sweden, although none with own production. The first three Japanese establishments of manufacturing subsidiaries in Sweden took place during 1985-1987 in the aftermath of the Plaza Accord in the second wave of *endaka* corresponding to 54% appreciation versus the USD, which pushed the Yen to previously unexplored altitudes and made foreign direct investment more attractive than earlier (Flath, 2014). The number of establishments in Sweden grew thereafter to 19 in 1993 (Alvstam & Ivarsson, 1996). The bilateral exchange rate between the Yen and the Swedish Krona went through a shift from JPY 70 to SEK during the pre-1972 Bretton Woods system, to JPY 12 to SEK in 1995 (Alvstam & Ivarsson, 1996). At the same time the total number of Japanese manufacturing subsidiaries in Europe increased from 117 to 728 (Alvstam & Ivarsson, 1996).

The Swedish accession to the European Union in 1994 marked a significant institutional shift for Sweden, facilitating the flow of labor, capital, goods and services. However, the accession was preceded by the Swedish ratification of the EEA Agreement in 1992, which facilitated Sweden's early access to the European Single Market. In the Swedish import data (Figure 1), a sharp decrease in the direct imports from Japan. This figure should be interpreted carefully, as the *indirect* trade transited through an EU member state, including imports from Japan, increased with this institutional change.

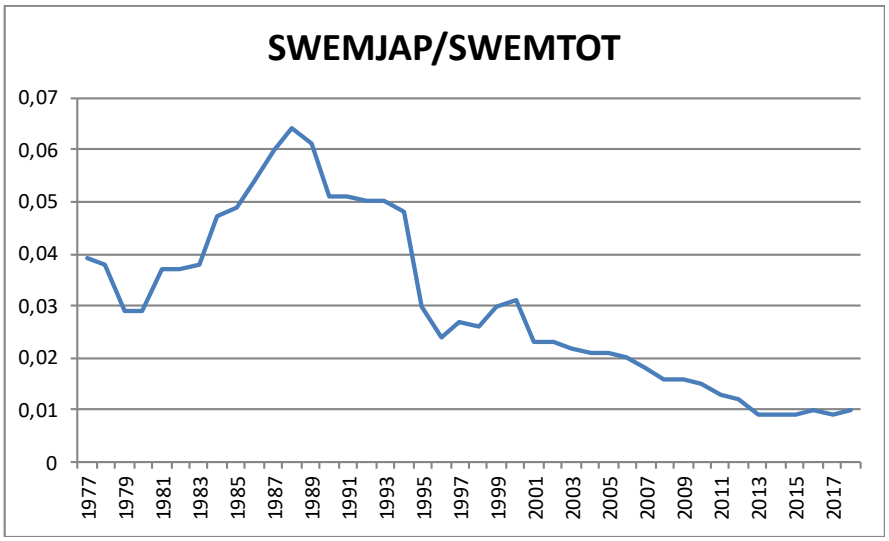

Figure 1. *Swedish direct imports from Japan 1977-2017. Own calculations from Statistics Sweden data.*

Turning our attention to inward M&As in Sweden by Japanese firms, which increased somewhat during the same time period, the effect from the EU accession was not dramatic. Rather, as we can see in Figure 2, we can observe a slight preference of acquiring smaller parts of Swedish firms, such as JV dissolutions, business unit takeovers or acquisition of subsidiaries located in another EU member state. Still, outright acquisitions of entire Swedish-owned firms were still rare. Reflecting a risk-avert or careful expansion strategy of Japanese MNCs, Sweden was still a peripheral region side-lined by the substantial attention Japanese MNCs paid to establishments in the United Kingdom, Germany and the Netherlands. During the 2000s, the downward trend of *direct* imports from Japan continued, which is similar to the overall trend for the entire EU direct imports from Japan.

For Japanese cross-border M&As in Sweden in the 2000s, we can observe a clear shift in terms of investment targets. Differently from earlier decades, the nature of Japanese acquisitions can be described as two-fold. Firstly, whole companies are acquired and made wholly-owned subsidiaries of the Japanese parent firm. Secondly, the Swedish target firms tend to be transformed into regional HQs or supplier to the European market. The latter move marks a changing view of Japanese owners, apparently making the newly acquired Swedish units a strategic part of their global organizations.

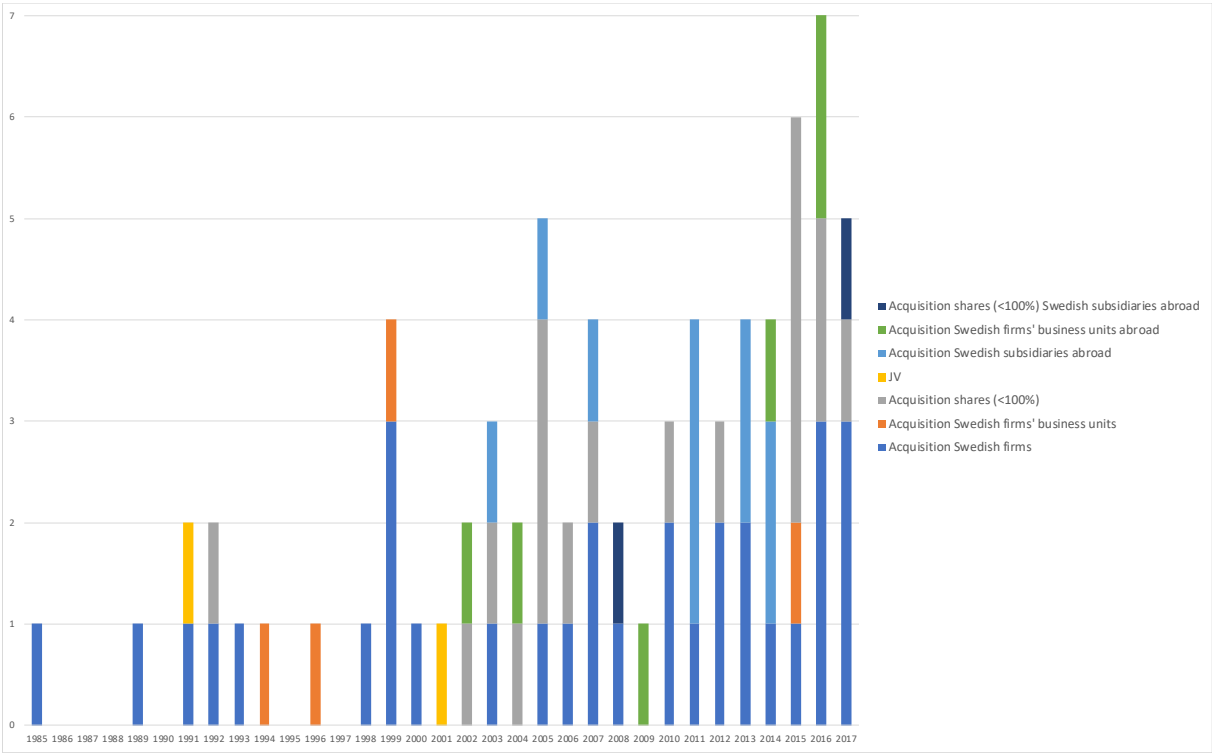

Figure 2. *Japanese M&As in Sweden 1985 – 2017. Deals separated in categories M&As of Swedish units and assets abroad and M&As of and JVs with Swedish firms, units and assets in Sweden.* Source: *Recof data.*

Later in 2019, we also experience a significant shift in the institutional trade and investment environment, when the EU-Japan EPA went into effect. Still too early to determine its effects[2], the symbolic value of enacting general agreements on trade and investments should not be underestimated.

Groups of Japanese investing firms

We categorize the Japanese export and direct investment pattern in Sweden in two main groups and three sub-groups. *The first group* represents Japanese exports of intermediate products to Sweden for further processing to capital goods to own original equipment manufacturers in other European countries. Swedish firms operate in this case a link in the regional/global value chain of Japanese

[2] The EU-Japan EPA consists roughly of two parts, each associated with complicated structural regulatory framework. Free trade is permit-based, where individual firms are required to register at national authorities to engage in tariff-free trade. Investment agreement is still subject to further negotiations, where some disagreements between the European Commission and the Japanese government exist regarding, e.g., disputes, exist.

firms. *In the second group*, which also can be seen as a second stage, a Swedish firm is acquired by a large Japanese company in order to both continue processing to OEM firms *or* to assemble final consumer goods for the Swedish and European end-market. The role of the Swedish subsidiary may also be to re-export products or patents at later stages in the value chain back to Japan.

A variant of this second group pattern, due to the advantages of the European Single Market to create a state-of-the-art specialization, division of labor and manufacturing fragmentation, has been exports of intermediate products from Japan to another European country, and thereafter, with or without further processing send the goods to a Japanese firm in Sweden for the next step in the value-chain. This is a stylized way of framing the potential configuration of business activities and relate it to the overall activities of firms active within Europe.

LITERATURE REVIEW

Reinvention of Japanese corporate strategy and their new take on internationalization

Through the combination of strategy and location it is possible to tie the conceptual discussion to a broader perspective of the restructuring of the Japanese business environment. Before going into the more specific issues of the organization of the firms and impact of various forms of internationalization, it is necessary to put forward some key-issues of change taking place within the Japanese business context. In the recent study Schaede (2020) calls the last two decades of change Japan for the "Business Reinvention of Japan". After a prolonged period of economic challenges in the wake of the lost decade and continuously increasing competition from firms based in Korea, Taiwan and China, Japanese firms have embarked on a path of industrial upgrading and strengthening of competitiveness. In a similar vein, Watanabe (2020) also stress change within area

HR practices, overall restructuring of the economy through *Abenomics*[3] and a new competitive landscape.

Through the combination of the macroeconomic change and the firm level operational view Schaede (2020) discuss the concept of what she calls the Aggregate Niche Strategy used by the reinvented Japanese *Kaisha*. This process is driven by two parts; strategic repositioning and organizational renewal. In order to meet new competition in Asia the large Japanese firms and conglomerates need to rethink the business configuration and disconnect from lower ends of the production. Selling parts of the firms that have been there from the start has proven to be a painstaking process, but over the last decade this has finally come to the forefront of Japanese management and corporate governance restructuring measures. To be successful, however, a profound shift within the organization is also pivotal. This involves, R&D structures, promotion and payment, and work with ambidexterity. This concept has been discussed within the IB literature as a way of handling both well-functioning business areas along with managing new business ventures, and thus constituting a dynamic capability and where globalization of firm activity is done under uncertainty (Vahlne et al., 2011; Vahlne & Jonsson, 2017).

The implication of the Aggregate Niche Strategy has implications for the internationalization of Japanese business. The ongoing restructuring that has been taking place on the domestic market, exiting non performing sectors such as low ends of consumer electronics and increasing competitive advantage in advanced manufacturing also change business activities in the global market. Japanese firms are now to be found as leaders in areas of advanced systems solutions and high-end intermediary products vital to the value chains of firms in the global market (Schaede, 2020). Large industrial groups such as Hitachi and Mitsubishi stress the complexity of systems such as smart electricity grids and sustainable urban solutions in their respective fields. Together with a strong

[3] The Japanese comprehensive economic reform program launched by the former Prime Minister Shinzo Abe in 2012.

drive towards increased digitalization across industry and upgrading of possibilities through Internet-of-Things, Japanese firms now enter the global market from a new vantage point. Changing governance structures together with solid financing possibilities creates opportunities for conducting M&As on the global market. Here, firms that fit the new strategy are being integrated into the larger international operations. This type of internationalization is different to earlier time periods where Japanese firms mainly ventured abroad through setting up subsidiaries. This process is done in relation to the trade and FDI possibilities that exist in the market. Hence, the future of Japanese industrial presence and locational footprint in Europe rest on the access to the European Single Market driven by strategic intent of existing and recently acquired operations.

Changing subsidiary responsibilities

The context that MNC subsidiaries find themselves can be described as a part in an integrated global system. As many authors have shown (e.g., Andersson et al., 2002; Ghoshal & Bartlett, 1990; Holm et al., 1995; Rugman, 2014), the relationship of MNC parent unit and its subsidiaries is neither purely dyadic nor static; rather, it is a universe of dynamic multilateral relations. As a result, the role, organizational status and responsibilities of subsidiaries within the MNC are subject to an evolutionary development over time.

Paterson and Brock (2002) offer an overview of the subsidiary-management literature, and note the fluctuation and change in the scholarly understanding of the headquarter-subsidiary relationship over the recent decades. The gravity of international management research attention has gradually tilted towards a view on the subsidiary as the core unit for understanding the global organization of multinational corporations. Early contributions, represented by Hedlund (1981) and Bartlett and Goshal (1987), highlighted the discrepancy between the headquarter (HQ) view on the subsidiary role and the actual function and contribution of the individual subsidiary to the overall corporation, not reflecting the commonplace HQ perception of a “democratic” federative corporation. An equally spurious match between a perceived belief in formal control and what actually directed the

subsidiaries, such as cultural control and management systems, have also been discussed by, e.g., Prahalad and Doz (1981). In line with these classic contributions in international management literature and on the HQ-Subsidiary relationship discourse, Birkinshaw et al. (2000) also raise the problem of differing HQ-Subsidiary perceptions of intra-organizational dynamics by suggesting that the managerial position in defining this relationship has a large influence in the eventual outcome of the subsidiary position within the MMC.

Thus, the tasks that subsidiaries are entrusted can undergo changes over time. Taggart (1997) suggests, along with the original thesis of Prahalad and Doz (1987), that the level of integration has a clear relation to the level of responsiveness at the foreign subsidiary. This has indeed an implication of how the HQ-Subsidiary relationship dynamics are dependent on the level of responsibility gained or awarded the subsidiary, which in turn is dependent of the resources acquired and developed by the subsidiary (Birkinshaw & Hood, 1998).

For Japanese firms, the previous notions on dynamic change over time and increased ambidextrous capabilities in the global organization, the diversification and fragmentation of Japanese MNCs' value chains in North America, Europe and South East Asia is evidence of such development (Yamashita, 2008; Ando & Kimura, 2009; Ström & Yoshino, 2009). Furthermore, Fang et al. (2013) have observed that Japanese MNCs are changing subsidiary management policy, and noted that the strive for efficiency improvements in the intra-organizational physical and immaterial flows is a strong feature in such a development. In other words, there are no reason to believe that also Japanese MNCs are escaping similar organizational changes and development as their Western counterparts.

Changing subsidiary autonomy

Another issue that has been discussed at length in the literature is the foreign subsidiaries' position and autonomy level for global innovation capability development. For example, Birkinshaw (2002) has observed from a sample of Swedish large MNCs that the level of mandate and autonomy of R&D centers tend to correlate with how easy their knowledge mass (i.e., the R&D assets developed at the

units) can be moved across borders. This also relates to the increasing share of intangible assets and services in global value chains, where location strategy plays a pivotal role in securing a geographical position with extensive reach (Ström & Wahlqvist, 2010; Yakob et al., 2018). Another condition that has been identified in the literature as central to the subsidiaries' process towards greater autonomy is the levels of internal and external embeddedness of the subsidiary (e.g., Ambos et al., 2011; Meyer et al. 1999), which, if successful, yields externalities such as increased trust, network access and enhanced innovative capabilities (Ghoshal & Bartlett, 1990; Inkpen & Zhang, 2005; Kogut & Zander, 1992).

Birkinshaw (2002) and Frost et al. (2002) have noted that the autonomy level of subsidiaries might influence the positive development to subsidiary level world-leading capabilities, which is also observed and verified empirically by Chang and Rosenzweig (2009). A finding that questions the mainstream assumption of the role of HQs in managing subsidiaries is the existence of independent initiatives or maintained bargaining powers versus the HQ by the subsidiary management (e.g., Chang & Rosenzweig, 2009; Mudambi & Navarra, 2004), which have been a core factor in enhancing the capability portfolio of subsidiaries. Ambos et al. (2011) suggest that developing and maintaining trustful relationship with the home country HQ also contributes to increased autonomy for the foreign subsidiary. Thus, as Ambos et al. (2011) suggest, we need to leave the mainstream view on subsidiary autonomy as a static concept and acknowledge the fact that the foreign subsidiary's relationship with the parent company is subject for reconfiguration and changes as the overall global organization of MNCs undergoes necessary changes.

Also, the nature of communication within MNCs and its relation to the foreign subsidiary status is relevant for this discussion. On one hand, the prevalent assumption is that if the relation between HQ and the foreign subsidiary is characterized by frequent reporting and hosting of expats at the subsidiary, the HQ is exercising a hard control over the overseas subsidiary (e.g., Forsgren et al., 1995; Foss et al., 2012). On the other hand, other authors (e.g., Chang & Rosenzweig, 2009; Ghoshal

et al., 1994) have observed open and frequent communication between MNC HQs and its foreign subsidiary as a central factor when transferring responsibilities. If this is a description of a true picture, incentives and trust rather than control and fiat might be a precondition for a greater autonomy at foreign subsidiaries (cf. Ciabuschi et al., 2012; Hoenen & Kostova, 2015). The classic integration-responsiveness pattern proposed by Prahalad and Doz (1987), and Jarillo and Martinez (1990) reflects these dynamics in the HQ-Subsidiary relationship dyad. As illustrated in, e.g., Yakob (2018), relations within global organizations can change over time, suggesting that initial integration-responsiveness relationship is not perpetual in nature. What is interesting here is rather the level of integration versus the level of local responsiveness (e.g., Taggart, 1997), and its influence on the autonomy status of the subsidiary.

For the Japanese MNC context, a number of studies have discussed the effects from subsidiary autonomy level of Japanese firms. For example, Kawai and Strange (2014) have suggested that performance at Japanese-owned subsidiaries is correlated to the level of autonomy under the condition of high expat involvement and technological uncertainty, defined as a rapidly changing technological environment and development characterized by uncertainty. There is also evidence of positive effects from increased subsidiary autonomy and HQ delegation of responsibilities in high-tech manufacturing subsidiaries of Japanese MNCs (Collinson & Wang, 2012), leading to a larger share of contribution by local external host country partners to the value creation and innovation to the corporation. Thus, also in this respect, changing dynamics can also be observed within Japanese MNCs.

Changing R&D roles in global structures

Innovation is usually a resource-intensive activity that is dependent on spillovers and cooperation stemming from partner firms included in the innovation and business networks in which the firm is embedded (e.g., Ensign, 1999; Martin, 2013). However, the organization of global corporate R&D

networks is often a result of M&As and where the original R&D facilities were located (von Zedtwitz et al., 2004).

von Zedtwitz et al. (2004) raise several related issues important to globalization of R&D functions, and discuss how globalized innovation systems are difficult to optimize. They suggest that the existence of systemic challenges or dilemmas to managing innovation systems can be positive as they sharpen the responsiveness and flexibility of organizations. Despite challenges stemming from innovation capacity-building, some MNCs have succeeded in establishing truly global R&D and innovation networks. Usually, upgrading the technological capabilities at foreign subsidiaries is associated with FDI in emerging economies and developing countries (e.g., Hobday & Rush, 2007), but is also done in developed countries (Kokko & Kravtsova, 2008). Kokko and Kravtsova (2008) have, however, observed that the focus of this type of upgrading seems to aim for innovation capability enhancement. Thus, for an internationalizing firm aiming to create dynamic capabilities for its global operations, upgrading of *subsidiary* innovation capabilities might be a central element in this process (e.g., Luo, 2000).

Obviously, a related question is whether there are other conditions that can facilitate foreign subsidiaries' readiness to absorb knowledge necessary for enhancing their innovative capabilities. Apart from obvious institutional conditions in the local environment facilitating such a transition (Meyer et al., 2011), the subsidiary itself need to be mature or developed enough to absorb new knowledge and technology (e.g., Blomström & Kokko, 1998; Sjöholm, 1999), which would support the observation by Kokko and Kravtsova (2008).

For Japanese firms, based on the description of Japanese large MNCs' R&D organizations by the end of the 1990s as being highly centralized and HQ centered (Watanabe et al., 2001), there are reasons to believe that the Japanese manufacturing sector MNCs also have reconsidered the allocation of R&D resources over the last 20 years. This observation is reflected by the outward M&A strategy of the Japanese MNCs, which increasingly have included advanced manufacturing firms that often are

spearheading the technological development in their fields, respectively. This strategy is consistent with the fact that they are acquiring foreign firms located in peripheral regions. An illustration of this resource reconfiguration and changing organizational responsibilities among Japanese MNCs' R&D is given in Collinson and Wang's (2012) study on Japanese and European MNCs' Taiwanese subsidiaries, where they have observed increased autonomy in innovation planning and engagement of external partners.

CASE EVIDENCE

The case firms that have been studied are a rather diverse set. This gives a broad overview of the undertakings of Japanese firms in order to deliver on strategy and usage of the European market. Table 1 gives an overview of case company descriptives.

	Acquisition date	Position in the global corporate structure	1. Nationality CEO 2. Nationality VP 3. Nationality Company board chairman	Turnover (in SEK mn)	Number of employees
Komatsu Forest	23 October 2012	Fully-owned subsidiary of parent company	1. Swedish 2. Japanese 3. Japanese	4 108	747
Suzuki Garphyttan	26 December 2008	Independent fully-owned unit in the global corporation	1. Swedish 2. Japanese 3. Japanese	920	3 745
BT/Toyota Material Handling Manufacturing Europe	5 April 2000	Fully-owned subsidiary of parent company	1. Spanish 2. Swedish 3. Japanese	15 161	3 007
UniCarriers Europe	6 September 2007	Fully-owned subsidiary of parent company	1. Swedish 2. Japanese 3. Japanese	3 250	1 140

Table 1. *Case company descriptives.* Source: *Recof, Company homepages, Alvstam et al (2020). The data describes the situation in 2020 (FY2019/2020).*

Komatsu Forest – A respected partner

Originally established as Umeå Mekaniska Verkstad, Komatsu acquired the company from the Finnish company Partek in 2003. The company specializes in forest harvesting machines and vehicles for forest industry. It maintains its own international corporate structure encompassing North America and Sweden under the main ownership of Komatsu Ltd. The Swedish company was seen as a strategic acquisition complementing the product portfolio of Komatsu Ltd., allowing them to expand into forest machines and tap into the acquired company's strong market position on the European and South American markets. For Komatsu Forest, the help of the Japanese parent company has helped them to expand on the North American market.

Level of autonomy (Position in the global organization)

Komatsu emphasizes a long-term view on the ownership, and no changes has been made at all in the local organization. In line with this principle, the Umeå unit hosts three Japanese resident expats (VP, CFO and Production Manager) along with a team of senior Swedish managers. The status of the company is to a high degree autonomous within the global organization of the parent company group. Differently from other parts of Komatsu Ltd., which reports via regional headquarters, the Swedish unit is reporting directly to the corporate headquarters in Tokyo. The location in Northern Sweden is not considered as a problem for Komatsu, as the supply and delivery routes have been well established well before the Komatsu takeover.

Komatsu Forest (then called Partek Forest) has a history of international and domestic acquisitions, and is now the owning company for one supplier company in Sweden and one production unit in the US.

There is a sharp contrast of the management philosophy between the former and current owners, as Partek's management was characterized by short term cost control and reporting, while Komatsu's management has a long-term perspective in planning and business development. Furthermore, the

relationship with the parent company in Japan can be characterized as symbiotic under a strong independent corporate position of Komatsu Forest. This was experienced by the Swedish managers as an important expression of trust-building and liberty to make own business decisions. This also includes independence in business model development, allowing Komatsu Forest to maintain its strong position in its stronghold markets.

Resources and capabilities (R&D)

Since the takeover, the Umeå unit has been able to access a significantly larger pool of resources in terms of technical know-how for its own self-financed R&D, for which the company use about 3% of its average annual turnover. Thus, Umeå hosts unique competences regarding mechanical solutions for forestry harvesting, which the Japanese parent company does not possess. Advanced expertise exchange with the Japanese owning company is frequent, and there is a regular exchange of technical personnel at the expat level. Therefore, the relationship between Komatsu Ltd. and Komatsu Forest can be labeled to be of a mutual benefit.

Regarding the technological content upgrading of the existing product portfolio since the takeover, there are no such initiatives taken by the parent firm per se, but rather as a part of a natural product development from the Swedish unit's side. This is a result of their own R&D work and an ambition to introduce advanced digital equipment in their forest harvesting vehicles to enable Big Data processing in the future.

Suzuki Garphyttan – A *laissez-faire* relationship

Acquired by Suzuki Metal Industries (part of Nippon Steel & Sumikin) in 2009, Suzuki Garphyttan is an establishment with traditions. From its foundation in 1906, the company's specialty is cold drawn steel wires. Today, the main business area is steel wire and spring wire production for the automotive industry. The Japanese owners have basically not interfered with neither the

organization nor the business strategy of Suzuki Garphyttan, but has chosen to keep the business "as usual." The Japanese owners declares that the investment horizon is long term.

Level of autonomy (Position in the global organization)

The company enjoys a great autonomy within the global organization of Nippon Steel & Sumikin, much due to the fact that Suzuki Garphyttan does not have any rival corporate units. Despite having a Japanese resident expat VP and technicians from Japan, decisions regarding production and business development are still made independently, and the company reports directly to the corporate HQ in Tokyo. The main reason for the company's strong position within the global corporate structure is attributed to the company's overall profitability and position within the global value chains of the automotive industry. This is also the reason why the business model has been maintained since the acquisition in 2008. An expression of the company's independent role in the global organization is its current efforts finding alternative areas of use for its products as combustion engines, which is currently the main output target for its steel wires, is projected to face a sharp production decline in coming years.

Suzuki Garphyttan has no formal position within the parent company's global value chain. However, Suzuki Garphyttan sources most of its steel from Nippon Steel producers, but also from other external suppliers both in Japan and Europe.

Resources and capabilities (R&D)

There is a minuscule amount of cooperation with the parent company regarding R&D, digitalization (e.g., 4th Industrial Revolution), and production system development. Also, in terms of product development, the parent company trust Suzuki Garphyttan to be best positioned to direct their own R&D. Within Suzuki Garphyttan's own international organizational structure, all R&D and IT functions are located in Sweden, while the production units around the world operates independently.

Most of the development work concerns process development and how to increase the productivity and production cost efficiency at the production sites rather than the products themselves, as the business model is to deliver standard products in bulk tailor-made to the customer firms' specifications. The company is increasingly developing concrete ideas and plans for digitalization and integration of the supply-demand-production-delivery interface.

BT/Toyota Material Handling Europe (TMHE) and Toyota Material Handling Manufacturing Sweden (TMHM Sweden) – Semi-independence

As the very first company in Sweden specializing in forklifts, BT was founded in 1946 having organizations associated to the social democratic movement as owners. Pioneering in standardization of pallets, the company had a solid development over the years both in terms of product development and broadening of its business scope. The main production plant was located at Mjölby, about 200 kms southwest of Stockholm. In 2000, the Swedish Cooperative Union sold the company to Toyota Industries Corp. (TICO), which made BT a part of its Toyota Material Handling Europe (TMHE) Group. The principal company, with its European headquarters still located at Mjölby, has a turnover of about SEK 45 billion, and manages subsidiaries in over ten countries, mainly in Europe, but also in other continents. The Swedish subsidiaries account for roughly one third of TMHE's total sales. Its main manufacturing unit, TMHM Sweden, has a turnover of about SEK 7.7 billion. In addition, the group comprises subsidiaries with responsibility for machine renting, retail trade, logistics solutions, consulting and finance.

Level of autonomy (Position in the global organization)

Toyota Industries Europe has an independent responsibility for the European operations of material handling manufacturing and sales within the Toyota Group, and provides a good example of how the entire European region is managed and coordinated from its Swedish business unit. Despite being vertically integrated with the Toyota's and TMHE's organization, TMHM Sweden enjoy a large degree of freedom and autonomy when it comes to strategic business decisions and internal resource

allocation, including R&D. TMHM Sweden has also a global responsibility for TMHE's development of telematics solutions, which puts TMHM Sweden in a core position in the global corporate structure. The production philosophy of TMHM Sweden is following the one of Toyota Group, but the after-sales service practices are developed and maintained in-house since the pre-M&A days. Growth has been an ongoing concern for Toyota Groups' global headquarters, which has urged TMHE to step up growth but has refrained to micro manage its strategic business decisions. TICO has also grown through acquisitions of other European forklift companies, e.g., the Dutch material handlings operator Vanderlande, specializing in logistical solutions for airports and warehouses.

Resources and capabilities (R&D)

The Japanese owners have been actively present in developing and upgrading the production infrastructure and productivity at the subsidiary since the takeover. The unit has its own R&D resources in Sweden (indoor forklifts and turnkey solutions for warehouse management) and in Italy (outdoor forklifts), and have also geographically diversified parts of its R&D to utilize the Western Swedish automotive innovation cluster located in Gothenburg. The focus of the R&D at the subsidiary headquarters is hardware development for automatization, while the R&D located in Gothenburg concerns software development for the core products, including the infrastructure for collection of Big Data. External R&D collaboration is demonstrated by TMHM Sweden's ongoing co-development projects with its customers in technical and software development. The local R&D competencies are procured not only by external recruitments but also developed in-house at the Swedish subsidiary.

UniCarriers – Freedom with controlling parent in the rear seat

The origins of the Swedish company, named Atlet AB, was founded in 1958 as Elitmaskiner manufacturing electric trucks for indoor use. After being acquired by Nissan Forklift in 2007, the UniCarriers was formed through a global merger of Nissan Forklift, Atlet and Hitachi's forklift division. The company was eventually acquired by Mitsubishi in 2011, whereupon it merged with the

Japanese company TCM to form UniCarriers Corporation. In 2017, UniCarriers Corporation became a subsidiary of Mitsubishi Logisnext as a part of a global reorganization. The Swedish unit is now the base for UniCarriers' European operations, and the HQ is located in Atlet's former production facilities. Still, it is a minor actor on the European forklift market well behind its main competitor Toyota Material Handling Europe.

Level of autonomy (Position in the global organization)

The Swedish unit (i.e., the former Swedish Atlet AB) has only a Japanese expat board chairman present at the site when the board meets. Being an integrated part of the global organization, the former Atlet AB has now been assigned the European HQ for UniCarriers in terms of business development and R&D. However, the perceived *de facto* position of the Swedish unit is weak in the overall global organization, as inquiries and requests get slow or no response from the Japanese HQ, which seems to have low awareness of UniCarriers' customers in the Western markets. The Japanese ownership has enabled the unit to utilize a larger volume of sales thanks to a broader sales network and resource pool. On the other hand, the in-house competency utilization is assessed as inefficient and was said to be subject for productivity improvement plans.

Resources and capabilities (R&D)

Manufacturing, training and R&D facilities are located at the Swedish unit. The activities for Warehouse solutions' R&D, which is the specialty of the former Swedish company, takes place independently at the Swedish unit. New technology development and component trials are carried out in close cooperation with subcontractors, but hardly together with the parent company. Despite being formally integrated into UniCarriers' global R&D portfolio, the Swedish unit experiences inertness in communication with the parent company when it comes to identifying needs within digitalization and automatization, and connecting them to the European client context. New development ideas related to digitalization needs by default to be sanctioned by the Japanese HQ,

but explaining and champion ideas originating in Sweden at the Japanese HQ involves long time lags as the awareness and understanding of the European market needs is perceived as low.

	Komatsu Forest	Suzuki Garphyttan	BT/TMHM Sweden	UniCarriers
Autonomy level/Position in the global organization	• High level of autonomy – linked to profitability • Reports directly to corporate HQ in Tokyo	• Independent legal unit with own brand • No organizational contacts with parent company	• High level of autonomy in strategic business decisions within an overall framework set by the parent company	• Clearly assigned role within the global organization • The level of autonomy is relatively low and HQ responsiveness of local initiatives very slow
Management	• Joint Japanese-Swedish management team, with expats occupying the key management positions	• Joint Japanese-Swedish management team, with an expat VP and key technical officers.	• Spanish-Swedish management team	• Swedish-Japanese management team
Resources	• Independent resource procurement (HR, Financial, Technical expertise) • Access to parent firm resources when needed	• Independent resource procurement (HR, Financial, Technical expertise) • No necessity of access to parent firm technical expertise	• Independent resource procurement (HR, Financial, Technical expertise) • Access to parent company resources, coordinated with the parent	• Has increased sales volumes and market access after the Japanese acquisition thanks to an enlarged market scope and size

Table 2. *Main findings and properties of the example case firms.*

R&D Capabilities	• Largely independent R&D • Technical cooperation possible when needed • Regular exchange engineering expertise/specialists	• Independent R&D	• The parent company supports and is engaged actively in R&D, but resources and recruitment of competencies procured locally	• Independent R&D • Challenges in obtaining understanding for necessary R&D project at the Japanese HQ
Characteristics of the Parent – Subsidiary relationship	• Respected partner	• Laissez-faire	• Semi-autonomous	• Inert passivity
Acquired unit utilized as a Stepping stone	• Yes (product niche & markets)	• No (strategic portfolio acquisition)	• Yes (product niche & markets)	• Yes (product niche & markets)

Table 2. *Main findings and properties of the example case firms. (Cont'd.)*

DISCUSSION OF FINDINGS

Typical for the early Japanese FDI in Sweden was a strong emphasis at sectors where Swedish industry already had a strong international competitive advantage: transport equipment and machinery related to transport equipment, e.g., iron sheet processing, truck steering parts, rock tools, and industrial robots. Another important target sector has been the forest industry, with products such as highly specialized paper qualities, and pre-fabricated houses. Accordingly, Japanese FDI in Sweden was from the very beginning mainly technology, strategic asset-seeking, and natural resources. Including the Japanese M&A pattern in Sweden, this profile of FDIs is still the characteristic feature in the current picture 30 years later. The Swedish membership in the European Union changed the situation with regard to the European Single Market in the sense that there are no formal physical or technical barriers between the EU member-states, and, accordingly, a European platform based in Scandinavia is less of a disadvantage than before. Another effect of the

Swedish membership was an increasing share of indirect imports to Sweden from Japan through the major seaports at the European continent, e.g., Rotterdam, Antwerp or London. This shift has changed the statistical reporting of Japanese goods to Sweden, since the first entrance is reported as imports from Japan, after which further transactions within the European Single Market are regarded as intra-EU transfers, and are recorded as shipments from, e.g., Netherlands, Belgium and the United Kingdom when they cross the national border to Sweden. This statistical bias has led to a diminished bilateral gap between import and export values between Sweden and Japan.

Going back to the research questions it is possible to see some characteristics that are vital to put forward:

i. Have the acquired companies been given a broader responsibility to cover a larger market?
ii. Has the degree of autonomy for the acquired company within the parent corporation's global organization changed?
iii. Has the acquired companies' role regarding research & development in the parent corporation's global organization changed?

In terms of the geographical market reach and importance of the specific situated location, the results point towards two outcomes. First, the Japanese firms seem to value the location of the acquired firms due to heritage, local commitment and resources. The investments build on the industrial heritage at these locations and there has been no sign of geographical reconfiguration on the traditional sites. A reflection of such appreciation of the acquired units' capabilities is also the level of managerial independence that these units enjoy (albeit varying from one Japanese-owned firm to another). Foremost, the general autonomy in business development and R&D is apparent, pointing to the long-term build-up of capability in line with, e.g., Birkinshaw's (2002) and Chang and Rosenzweig's (2009) discussion on the resilience organizational autonomy might lead to, especially in terms of knowledge capability retention. Second, the acquired firms seem to keep and develop their geographical operation sphere. This can be a stepping stone for activities in Europe and the European

Single Market. The concept of stepping stone can also be extended to increasing markets through acquisition of market-leading technology and products, that creates not only a competitive advantage but also spearhead entries into adjacent or new product niches. Thus, acquisition of overseas firms, regardless of its locational position in the center-periphery geography, it can also be part of a global strategic position.

The investments in Sweden should not be seen merely as a local market entry strategy, but they all have a wider market reach for the Japanese firms. In relation to the strong position of R&D within the larger group structure, an independent position has been the primary outcome. However, there are good reasons to believe that capabilities will be built over time and in due time be incorporated into a wider European or global strategy of the Japanese acquiring firm along the proposition made by, e.g., Birkinshaw (2002), Chang and Rosenzweig (2009), and Schaede (2020). This also ties into the connection to a wider set of physical and immaterial resources for the acquired firm, being part of a larger organizational structure with a more diverse set of resources and potentially also financing possibilities.

Thus, the results show that the acquired firms have either a rather autonomous position within the wider organizational structure. In the case of UniCarriers, a more controlled but inert structure traditional to Japanese MNEs is observed, but with a wider market position and responsibility. In terms of management, resources and R&D capabilities, the new Japanese owners have by and large kept the independence of the respective firms. This would imply trust into the management and the capabilities of the acquired firms. It can also be a sign of the Japanese owners' belief in sustained competitive advantage of the acquired firms. The Japanese owners' engagement in a long-term commitment by letting the acquired firms keep their independent position within the corporation, as in the case of Komatsu Forest (as compared to their former owners Partek), rather than to rapidly integrate the new firms into fixed structures. The firms have been acquired on the basis of their strong position on the market, which fits the strategic long-term repositioning of the Japanese firms.

Going back to the conceptual proposal of an aggregate niche strategy (Schaede, 2020) pursued by Japanese firms, the results give support for such development. In the case of the investments in Sweden, the acquired firms are either found in specific market niches where they have global excellence or have the potential to fit a strategic repositioning of larger conglomerates as the example of UniCarriers and Suzuki Garphyttan reveals. The patient and long-term commitment of the Japanese owners will tell how the strategy in Sweden and Europe is in line with their business reinvention

CONCLUSIONS

On the basis of the research at hand, it is possible to put forward a set of concluding remarks. Based on the theoretical background in international management and economic geography literature, the concept of Sweden as a stepping stone seems to be a relevant way of characterizing the investments made by Japanese firms in Sweden. The concept has bearing on the process of internationalization and location strategy in two ways. One the one hand, it connects to the wider context of the international political economy. Japanese firms naturally operate on the basis of strategic considerations based on their global competitive advantages and capabilities, respectively. The fact that the European Single Market has been a key economic entity also generate an impact of the industrial foot print based on the political economic status. The investment in Sweden can be said to have both a global niche perspective, where the acquired firms have a specifically strong standing, and to position current or future European operations.

The UK's role as the European base for substantial Japanese FDIs over the years might change in the aftermath of Brexit. The UK stepping stone perspective that has been prevalent, might change in the future. This could have indirect positive spinoffs on smaller and open economies in the European Single Market such as Sweden with strong firms in advanced manufacturing or with a high service content. With the economic partnership agreement (EPA) it is also likely that the changing political economy makes it less necessary to have a manufacturing presence within the European Single

Market for Japanese firms, if it is not needed from a very specific competitive advantage. Instead, exporting from Japan could be a viable option. Thus, the reason for entering through FDI will likely be shifting, and for finding new answers, we need to go beyond an export-focused logic behind Japanese FDIs.

Thus, as we have argued earlier, the stepping stone concept as defined in this paper relates more specifically to large firm strategy and consideration of geographical and product offer anchoring and reach. With a reduced focus on barriers for trade in goods through the EPA, the investments of Japanese firms within the European Single Market, are more likely to be done in consideration of building long-term competitiveness in areas such as advanced, high value-added, manufacturing and combination of intangible attests and services content in the value creation process. Therefore, while having similar elements as the springboard concept (e.g., Luo & Tung, 2007; 2018), the stepping stone strategy of Japanese MNCs use of cross-border M&A has essentially different character in terms of capability utilization and product portfolio integration.

With an increasingly important share of service value content in global value chain and production networks, the issue of catching this value becomes vital (ADB, 2012; Bryson et al., 2012). With the recent EPA, it is likely that the service trade and integration of products and services labelled mode 5 in trade terms (Cernat & Kutlina-Dimitrova, 2014), will be the most important part of the relationship in the future. With the complexity of measurement and time lag of data this will be needed to study from a longitudinal perspective. The EPA framework hence supports the possibility for Japanese firms to take advantage of intangible assets and build service content as part of the business reinvention started in the domestic market.

In supporting organizational reconfiguration, development of international managerial practices is crucial. This process of business reinvention could be traced back to the change and transformation that has taken place within Japanese industry in the aftermath of the economic crisis in the early 1990s (e.g., Flath, 2014; Nakamura, 2005; Watanabe, 2020). Hence, the development of areas within

the EPA related to services and data transfer will be vital for the future relationship between the EU and Japan. In the words of Schaede (2020), successful Japanese firms seek an aggregate niche strategy, and for this to be implemented on the global scale, activities within Europe will be positioned to create strategic stepping stones. The empirical examples discussed in this study support this conceptual perspective. The companies presented here also shows the long-term commitment of Japanese FDI, where stability is vital, but where updated forms of corporate governance has been key in the business reinvention of successful Japanese firms (e.g., Fang et al., 2013; Schaede, 2020). However, the corporate structure seems to be vital for the long-term development and stability. The ambiguous governance and control situation in the case of UniCarriers shows that strategic development might be affected by owners' unclarities and slow communication (cf. the discussion by, e.g., Forsgren et al. [1995] vs. Ghoshal et al. [1994]).

In a similar vein, the recent large-scale investments of Hitachi buying ABB Power Grids and Nippon Steel buying Ovako Group, are well in line with what we see through the political economy context and the more niche-oriented strategy development. These industrial giants build on the strategy of business reinvention by using the strong position of the acquired firms. At this point, it is still too early to draw any conclusions from these two cases of recent M&A since the takeovers are only started to be implemented, but it shows great promise for future studies of Japanese investments in relation to the aggregate niche strategy and connection to digitalization and service content of Japanese firms' changing business models.

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Does Green Banking Really Captivating Customers

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Does Green Banking Really Captivating Customers

Abstract

Green banking initiative of banks revamped the Indian banking sector. In this direction, fintech innovations and customers attitude and knowledge about green initiatives and green products plays vital role. In this paper attempts has been made to analyze the relationship between educational qualification and usage of green banking products. This is an analytical study based mainly on the primary data collected through a scientifically developed questionnaire on 5 Point –Likert scale. Data was collected from 160 respondents.To achieve the objectives of research , cross tab, ANOVA and Kruskal Wallis Test are applied . Results have shown that there is an association between qualification and expertise in using these services. Majority of the frequent users of green banking services prefers the services because of the user-friendliness. Proper Customer Grievance and Technological advancements being the second and third major reason for the preference of green banking services.

Keywords: Green Banking; fintech innovation;Internet banking;user friendly.

Introduction

Fintech innovations revamped the whole banking and financial institutions in India. If we look at five years back nearly about 2015 public sector banks performance in terms of customer satisfaction was quite average on numerous parameters like ATM services, net banking services etc.in contrast to private sector banks. It is essential to reduce carbon footprint to save the planet, thus onus lies on all countries. In the parlance of climate change, numerous changes are coming in almost all the sectors of Indian economy. Banking industry is also not untouched with these changes. Thus, green banking is a buzzing words now a days. Green Banking Practices prominently known as"Green Banking". It refers to the environment-friendly initiatives taken by the banks to keep the environment green. Green banking is an integrated efforts of countries across the globe to save the climate and environment,(Bahl S., 2012). Banking sector in coherence with fintech innovations trying to minimize the carbon footprint from their day to day banking activities and also reducing external carbon emission.

According to Indian Banks Association (IBA, 2014) "Green Bank is like a normal bank, which considers all the social and environmental / ecological factors with an aim to protect the environment and conserve natural resources". Net-banking, mobile banking, phone banking, green credit cards, green home loans, Green project financing are few initiative of Green Banking. Green Banking is an innovative method of portraying the banking business and encouraging customers towards the regime of environmental protection (Islam & Das, 2013).Similarly, stated by Islam and Das (2013),in his research conducted on Asian economies , it is imperative for banking sector to focus upon green banking products to face intense competition in the banking and finance industry. Green banking is recent development in the banking and finance sector.Hence,banking activities and products are renovated in the direction of environmental protection. (Trehan, 2015). Ahmad et al. (2013) studied the adoption of green banking in commercial banks of Bangladesh. This study analyze the banking strategies which ensure the sustainable development of economy.Results have shown that most of the banks in Bangladesh have adopted green banking.This study indicates the importance and advantages of adopting green banking .

Statement of the Problem:

On account of global initiatives to reduce carbon emission all Indian banks are in competition of providing green banking services in best possible manner. Due to intense competition, several loss making public sector banks have merged. Now question arises, firstly, are these banks really successful to meet the expectations of customers. Secondly, which banks are more successful to fulfill customers' requirements, whether public sector banks or private sector banks.

Objectives of the study:

1. To study the relationship between educational qualification and frequent usage of green banking services.
2. To study the association between technical expertise and frequent usage of green banking services.
3. To identify the reasons for not using green banking services.

Hypothesis

1. H_0 : No association between usage of Green Banking services and expertise in using these services
   H_1: There is an association between usage of Green Banking services and expertise in using these services
2. H_0 : No association between qualification and expertise in using these services
   H_1: There is an association between qualification and expertise in using these services
3. H_0: There is no significant difference between the means
   H_1: There is a significant difference between the means
4. H_0: There is no significant difference between the mean ranks
   H_1: There is a significant difference between the mean ranks

Review of Literature:

Parameshwari , Balaji(2019),have studied the awareness and usage of green banking service of indian banks and also studied the factors which negatively impacting consumers attitude towards green banking services. Results have shown that old age people have no trust on green banking services of banks and they are quite scared while using these services due to lack of knowledge.

Gobinda Deka(2018), have analyzed the impact of green banking services from environmental perspective. A study was conducted in the state of Assam in India.A survey was made on customers" perspectives on the adoption and usage of various green banking practices adopted by banks in Assam.Results have shown green banking practices have positive impact on environment in terms of energy saving,fuel,paper,time and efforts.

Dileep G Menon; Sreelakshmi S G; Avinash Shivdas(2017),have studied reviewed the green initiatives taken by banking industry. Researchers have examined the development of various green initiatives occurring in banking sector.For this purpose, green initiatives of five major Indian banks were analysed.

R.Ganesan, A.Bhuvaneswari(2016),have studied green banking awareness level among the customers and established correlation between education level and usage of green banking services.The results have shown that ICICI bank and SBI bank are providing numerous green banking services to their customers.

Dipika(2015),have studied Indian banks initiatives towards sustainable development. She quoted that if indian banks wants to enter into global markets, it is important that they recognize their environmental and social responsibilities.

T.Rajesh ,A.S. Dileep (2014) concluded that Green banking providing the impetus to reduce pollution and save the environment. While financing projects, banks must check its environmental risks and ensure that project players have environmental safety measures in their plans, including recycling facilities or smoke and gas arresting units.

Masukujjaman and Aktar (2013), have mentioned that central bank of Bangladesh was the pioneer in the world which incorporated the concept of green banking. Banking sector in Bangladesh are doing consistent efforts to create awareness amongst customers about environmental issues and benefits of using green banking .Banks have lot of focus on energy prevention, paperless banking inside the banks also.

Bahl (2012) suggested Reserve Bank of India and government should play a proactive role and formulate green banking policy, guidelines & financial incentives for effective green banking.

Sahoo and Nayak (2007) explores the green banking practices in India. The study is concentered on achieving the sustainable development by allowing markets to work within the designed framework.

Getzner and Krauter (2004) have analyzed the respondents' willingness to invest in green shares. Researcher found education, income, environmental awareness and the expected profit are the main explanatory variables.

Research Methodology:

The research design of the study is descriptive research. The study is aimed at accurately and systematically describe a population, situation or phenomenon. Here the study is aimed at analysing the perception of customers about green banking services.This is an analytical study based mainly on the primary data collected through a scientifically developed questionnaire on 5 Point –Likert scale.Data were collected from 160 respondents. The data is collected using google survey and the respondents being users of green banking services.for the analysis purpose,cross tab,chi-square,ANOVA and Kruskal Wallis Test are applied .

Data Analysis:

Table 1: Cross Tab- Frequent users and Frequency in using Green banking services

Case Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Frequent*Q6	106	66.3%	54	33.8%	160	100.0%

Frequent*Q6 Cross tabulation

			Q6		
			YES	NO	Total
How frequently do you use the technology	Q10A	Count	48	4	52
		% within $Frequent	92.3%	7.7%	
	Q10B	Count	28	8	36

		% within $Frequent	77.8%	22.2%	
	Q10C	Count	58	10	68
		% within $Frequent	85.3%	14.7%	
	Q10D	Count	24	0	24
		% within $Frequent	100.0%	0.0%	
	Q10E	Count	40	2	42
		% within $Frequent	95.2%	4.8%	
Total		Count	198	24	222

Percentages and totals are based on responses.

a. Dichotomy group tabulated at value 1.

Note:Q10A- Internet Banking/Mobile Banking;Q1B- Credit card facility;Q10C- ATM;Q10D- Green Channel Counter Facility;Q10E- NEFT/RTGS

From the above analysis it is clear that 92.3% of the frequent users of green banking services use Internet Banking facility frequently. 77.8% of the frequent users of green banking services use Credit card facility frequently. 85.3% of the frequent users of green banking services use ATM facility frequently. 100% of the frequent users of green banking services use Green Channel Counter Facility frequently. 95.2% of the frequent users of green banking services use NEFT/RTGS frequently.

Table 2: Cross Tab- Frequent users and Attributes preferred by users

Case Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Attributes*Q6	102	63.8%	58	36.3%	160	100.0%

Attributes*Q6 Cross tabulation

			Q6		
			YES	NO	Total
Which attributes of bank do you prefer	Q11A	Count	36	14	50
		% within $Attributes	72.0%	28.0%	
	Q11B	Count	40	18	58
		% within $Attributes	69.0%	31.0%	
	Q11C	Count	32	12	44
		% within $Attributes	72.7%	27.3%	
	Q11D	Count	48	14	62
		% within $Attributes	77.4%	22.6%	
	Q11E	Count	32	12	44

		% within $Attributes	72.7%	27.3%	
	Q11F	Count	42	14	56
		% within $Attributes	75.0%	25.0%	
	Q11G	Count	32	14	46
		% within $Attributes	69.6%	30.4%	
Total		Count	262	98	360

Percentages and totals are based on responses.

a. Dichotomy group tabulated at value 1.

Note:Q11A- Quality of services;Q1B- Technology;Q11C- Trust;Q11D- User Friendliness;Q11E-Privacy;Q11F- Proper Customer Grievance Handling;Q11G- Customer centric

From the above analysis it is clear that 72% of the frequent users of green banking services give preference to quality of service. 69% of the frequent users of green banking services give preference to Technology. 72.7% of the frequent users of green banking services give preference to Trust. 77.4% of the frequent users of green banking services give preference to user friendliness. 72.7% of the frequent users of green banking services give preference to Privacy. 75% of the frequent users of green banking services give preference to proper customer grievance handling. 69.6% of the frequent users of green banking services give preference to customer centric.

Table 3: Cross Tab- Frequent users and Satisfaction on services

Case Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
$Satisfaction*Q6	129	80.6%	31	19.4%	160	100.0%

Satisfaction*Q6 Cross tabulation

			Q6		
			YES	NO	Total
overall satisfaction on Green Banking Se[a]	Q12A	Count	65	14	79
		% within $Satisfaction	82.3%	17.7%	
	Q12B	Count	52	10	62
		% within $Satisfaction	83.9%	16.1%	
	Q12C	Count	68	14	82
		% within $Satisfaction	82.9%	17.1%	
	Q12D	Count	60	6	66
		% within $Satisfaction	90.9%	9.1%	
	Q12E	Count	64	12	76

	% within $Satisfaction	84.2%	15.8%	
Total	Count	309	56	365

Percentages and totals are based on responses.
a. Dichotomy group tabulated at value 1.

Note:Q12A- Internet Banking/Mobile Banking;Q12B- Credit card facility;Q12C- ATM;Q12D- Green Channel Counter Facility;Q12E- NEFT/RTGS

From the above analysis it is clear that 82.3% of the frequent users of green banking services are satisfied Internet Banking facility. 83.9% of the frequent users of green banking services are satisfied Credit card facility. 82.9% of the frequent users of green banking services are satisfied ATM facility. 90.9% of the frequent users of green banking services are satisfied Green Channel Counter Facility. 84.2% of the frequent users of green banking services are satisfied NEFT/RTGS.

Table 4: Reason for not using green banking services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Lack of technical proficiency	26	16.3	16.3	16.3
	Security concern	78	48.8	48.8	65.0
	Lack of understanding about the benefits	32	20.0	20.0	85.0
	Lack of privacy	18	11.3	11.3	96.3
	problem is not resolved quickly	2	1.3	1.3	97.5
	Service issue	2	1.3	1.3	98.8
	Others	2	1.3	1.3	100.0
	Total	160	100.0	100.0	

From the above analysis it is clear that 16.3% of the respondents avoid green banking services because of lack of technical proficiency. 48.8% of the respondents avoid green banking services because of security concerns. 20% of the respondents avoid green banking services because of lack of understanding about the benefits. 11.3% of the respondents avoid green banking services because of lack of privacy. 1.3% of the respondents avoid green banking services because of delays in solving issues. 1.3% of the respondents avoid green banking services because of service issues. 1.3% of the respondents avoid green banking services because of other reasons.

Table 5: Cross Tab- Frequent users and Ability to meet customer's needs

Case Summary

	Cases		
	Valid	Missing	Total

	N	Percent	N	Percent	N	Percent
$Quality*Q6	106	66.3%	54	33.8%	160	100.0%

Quality*Q6 Cross tabulation

			Q6		
			YES	NO	Total
Ability to meet customer needs[a]	Q16A	Count	42	10	52
		% within $Quality	80.8%	19.2%	
	Q16B	Count	42	12	54
		% within $Quality	77.8%	22.2%	
	Q16C	Count	30	10	40
		% within $Quality	75.0%	25.0%	
	Q16D	Count	44	14	58
		% within $Quality	75.9%	24.1%	
	Q16E	Count	36	6	42
		% within $Quality	85.7%	14.3%	
Total		Count	194	52	246

Percentages and totals are based on responses.

a. Dichotomy group tabulated at value 1.

Note:Q16A- Internet Banking/Mobile Banking;Q16B- Credit card facility;Q16C- ATM;Q16D- Green Channel Counter Facility;Q16E- NEFT/RTGS

From the above analysis it is clear that 80.8% of the frequent users of green banking services say that Internet Banking facility is able to meet their expectation. 77.8% of the frequent users of green banking services say that Credit card facility is able to meet their expectation. 75% of the frequent users of green banking services say that ATM facility is able to meet their expectation. 75% of the frequent users of green banking services say that Green Channel Counter Facility is able to meet their expectation. 85.7% of the frequent users of green banking services say that NEFT/RTGS is able to meet their expectation.

Table 6: Cross Tab- Frequent users and opinion about environmental benefits

Case Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
$environmental*Q6	90	56.3%	70	43.8%	160	100.0%

environmental*Q6 Cross tabulation

		Q6		
		YES	NO	Total
Q18A	Count	42	10	52

environmental benefits of green banking		% within $environmental	80.8%	19.2%	
	Q18B	Count	38	10	48
		% within $environmental	79.2%	20.8%	
	Q18C	Count	42	12	54
		% within $environmental	77.8%	22.2%	
	Q18D	Count	46	14	60
		% within $environmental	76.7%	23.3%	
	Q18E	Count	48	12	60
		% within $environmental	80.0%	20.0%	
	Q18F	Count	48	14	62
		% within $environmental	77.4%	22.6%	
Total		Count	264	72	336

Percentages and totals are based on responses.

a. Dichotomy group tabulated at value 1.

Note:Q18A- Paperless Banking;Q18B- Energy Savvy;Q18C- Fewer trips to banks;Q18D- Less use of fuel
Q18E- Reduce traffic;Q18F- Low carbon emission

From the above analysis it is clear that 80.8% of the frequent users of green banking services say that Green banking services will encourage paperless banking. 79.2% of the frequent users of green banking services say that Green banking services will help in energy saving. 77.8% of the frequent users of green banking services say that Green banking services will reduce the customer's trips to banks. 76.7% of the frequent users of green banking services say that Green Channel Counter Facility reduces usage of fuel. 80% of the frequent users of green banking services say that Green banking services will reduce traffic. 77.4% of the frequent users of green banking services say that Green banking services will reduce carbon emission.

Table 7: Cross Tab- Frequent users and opinion about customer service benefits

Case Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
$service*Q6	98	61.3%	62	38.8%	160	100.0%

service*Q6 Cross tabulation

			Q6		
			YES	NO	Total
Customer service benefits[a]	Q19A	Count	54	8	62
		% within $service	87.1%	12.9%	

	Q19B	Count	54	12	66
		% within $service	81.8%	18.2%	
	Q19C	Count	52	12	64
		% within $service	81.3%	18.8%	
	Q19D	Count	46	4	50
		% within $service	92.0%	8.0%	
	Q19E	Count	54	4	58
		% within $service	93.1%	6.9%	
	Q19F	Count	54	12	66
		% within $service	81.8%	18.2%	
Total		Count	314	52	366

Percentages and totals are based on responses.

a. Dichotomy group tabulated at value 1.

Note:Q19A- Cost Effectiveness;Q19B- Time Savvy;Q19C- Convenience;Q19D- Anytime Anywhere;Q19E- Easy
Q19F- Quick Access

From the above analysis it is clear that 87.1% of the frequent users of green banking services say that Green banking services will lead to cost effectiveness. 81.8% of the frequent users of green banking services say that Green banking services will help in saving time. 81.3% of the frequent users of green banking services say that Green banking services will increase convenience. 92% of the frequent users of green banking services say that Green Channel Counter Facility will make service available everywhere. 93.1% of the frequent users of green banking services say that Green banking services will make things easy. 81.8% of the frequent users of green banking services say that Green banking services will enable quick access.

Table 8: Cross Tab- Frequent users and opinion about bank specific benefits

Case Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
bank*Q6	104	65.0%	56	35.0%	160	100.0%

bank*Q6 Cross tabulation

			Q6		
			YES	NO	Total
Bank-specific benefits[a]	Q20A	Count	60	14	74
		% within $bank	81.1%	18.9%	
	Q20B	Count	52	12	64
		% within $bank	81.3%	18.8%	
	Q20C	Count	60	10	70
		% within $bank	85.7%	14.3%	
	Q20D	Count	50	10	60
		% within $bank	83.3%	16.7%	

	Q20E	Count	58	16	74
		% within $bank	78.4%	21.6%	
	Q20F	Count	54	14	68
		% within $bank	79.4%	20.6%	
Total		Count	334	76	410

Percentages and totals are based on responses.

a. Dichotomy group tabulated at value 1.

Note:Q20A- Improves bank's image;Q20B- Cost Effective;Q20C- Better customer relationship;Q20D- Quick and convenient;Q20E- Increase in profit;Q20F- Boundary less network

From the above analysis it is clear that 81.1% of the frequent users of green banking services say that Green banking services will improve banks image. 81.3% of the frequent users of green banking services say that Green banking services are cost effective. 85.7% of the frequent users of green banking services say that Green banking services will improve customer relationship. 83.3% of the frequent users of green banking services say that Green Channel Counter Facility will make service quick and convenient. 78.4% of the frequent users of green banking services say that Green banking services will increase profit. 79.4% of the frequent users of green banking services say that Green banking services will enable boundless access.

Table 9: Chi-square- Frequent usage of Green Banking services and expertise in using these services

H_0 : No association between usage of Green Banking services and expertise in using these services

H_1: There is an association between usage of Green Banking services and expertise in using these services

Q6 * Q9 Cross tabulation

			Q9				
			Expert	Manageable Knowledge	Beginner	No exposure	Total
Q6	YES	Count	34	86	16	4	140
		Expected Count	29.8	87.5	19.3	3.5	140.0
	NO	Count	0	14	6	0	20
		Expected Count	4.3	12.5	2.8	.5	20.0
Total		Count	34	100	22	4	160
		Expected Count	34.0	100.0	22.0	4.0	160.0

Table:10 Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.024[a]	3	.018
Likelihood Ratio	13.792	3	.003
Linear-by-Linear Association	5.339	1	.021
N of Valid Cases	160		

a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is .50.

Note:

Here the analysis shows that 50% of the cells have count less than 5. So the basic assumption is violated.As the assumption is violated we use the likelihood ratio to find the association of variables. The value is 0.003 which is less than 0.05.So we reject the null hypothesis and conclude that there is an association between usage of Green Banking services and expertise in using these services.

Table 11: Chi-square- Qualification and expertise in using these services

H_0 : No association between qualification and expertise in using these services
H_1: There is an association between qualification and expertise in using these services

Q4 * Q9 Cross tabulation

			Q9				
			Expert	Manageable Knowledge	Beginner	No exposure	Total
Q4	POSTGRADUATE	Count	12	18	10	2	42
		Expected Count	8.9	26.3	5.8	1.1	42.0
	DOCTORATE	Count	16	42	12	2	72
		Expected Count	15.3	45.0	9.9	1.8	72.0
	ILLETERATE	Count	6	39	0	0	45
		Expected Count	9.6	28.1	6.2	1.1	45.0
	4	Count	0	1	0	0	1
		Expected Count	.2	.6	.1	.0	1.0
Total		Count	34	100	22	4	160
		Expected Count	34.0	100.0	22.0	4.0	160.0

Table 12-Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	21.747[a]	9	.010
Likelihood Ratio	28.601	9	.001
Linear-by-Linear Association	1.510	1	.219
N of Valid Cases	160		

a. 7 cells (43.8%) have expected count less than 5. The minimum expected count is .03.

Note:
Here the analysis shows that 4308% of the cells have count less than 5. So the basic assumption is violated.As the assumption is violated we use the likelihood ratio to find the association of variables. The value is 0.001 which is less than 0.05.So we reject the null hypothesis and conclude that there is an association between qualification and expertise in using these services.

Table 13: ANNOVA-Age & Expertise in using Green Banking Services
H_0: There is no significant difference between the means
H_1: There is a significant difference between the means

Descriptives

Q9

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
< 30	48	1.04	.743	.107	.83	1.26	0	2
30-45	98	.94	.686	.069	.80	1.08	0	3
45-55	8	1.00	.000	.000	1.00	1.00	1	1
>55	6	1.00	.000	.000	1.00	1.00	1	1
Total	160	.98	.672	.053	.87	1.08	0	3

Test of Homogeneity of Variances

Q9

Levene Statistic	df1	df2	Sig.
4.507	3	156	.005

ANOVA

Q9

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.351	3	.117	.255	.858
Within Groups	71.549	156	.459		
Total	71.900	159			

Robust Tests of Equality of Means[b]

Q9

	Statistic[a]	df1	df2	Sig.
Welch	.	.	.	.
Brown-Forsythe	.	.	.	.

a. Asymptotically F distributed.

b. Robust tests of equality of means cannot be performed for Q9 because at least one group has 0 variance.

Post Hoc Tests

Multiple Comparisons

Dependent Variable: Q9

Tukey HSD

(I) Q2	(J) Q2	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
< 30	30-45	.103	.119	.824	-.21	.41
	45-55	.042	.259	.999	-.63	.71

	>55	.042	.293	.999	-.72	.80
30-45	< 30	-.103	.119	.824	-.41	.21
	45-55	-.061	.249	.995	-.71	.59
	>55	-.061	.285	.996	-.80	.68
45-55	< 30	-.042	.259	.999	-.71	.63
	30-45	.061	.249	.995	-.59	.71
	>55	.000	.366	1.000	-.95	.95
>55	< 30	-.042	.293	.999	-.80	.72
	30-45	.061	.285	.996	-.68	.80
	45-55	.000	.366	1.000	-.95	.95

Homogeneous Subsets

Q9

Tukey HSD[a,b]

Q2	N	Subset for alpha = 0.05
		1
30-45	98	.94
45-55	8	1.00
>55	6	1.00
< 30	48	1.04
Sig.		.982

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 12.395.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Note:
In the test of homogeneity of variance we found that the p value is not less than 0.05.Thus we can understand that we have not violated the basic assumption of Annova.

Interpretation:
From the annova table we understood that the P value is more than the significance value of 0.05. Thus we cannot reject null hypothesis. So we conclude that there is no significant difference between the means.
As there is no significant difference in the means we will not analyze the post-hoc test.

Table 12: Test of several independent samples (Kruskal Wallis Test):
$H_{0:}$ There is no significant difference between the mean ranks
H_1: There is a significant difference between the mean ranks

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Q10A	160	.70	.930	0	4
Q10B	160	1.70	1.726	0	4
Q10C	160	1.20	1.212	0	4
Q10D	160	2.04	1.621	0	4

Q10E	160	1.29	1.310	0	4
Q9	160	.98	.672	0	3

Ranks

	Q9	N	Mean Rank
Q10A	Expert	34	54.50
	Manageable Knowledge	100	90.86
	Beginner	22	80.50
	No exposure	4	42.50
	Total	160	
Q10B	Expert	34	50.03
	Manageable Knowledge	100	90.30
	Beginner	22	92.14
	No exposure	4	30.50
	Total	160	
Q10C	Expert	34	84.91
	Manageable Knowledge	100	84.54
	Beginner	22	65.32
	No exposure	4	25.50
	Total	160	
Q10D	Expert	34	67.38
	Manageable Knowledge	100	82.64
	Beginner	22	91.32
	No exposure	4	79.00
	Total	160	
Q10E	Expert	34	55.85
	Manageable Knowledge	100	84.88
	Beginner	22	99.95
	No exposure	4	73.50
	Total	160	

Test Statistics[a,b]

	Q10A	Q10B	Q10C	Q10D	Q10E
Chi-Square	22.437	27.983	10.181	4.404	15.691
df	3	3	3	3	3
Asymp. Sig.	.000	.000	.017	.221	.001

a. Kruskal Wallis Test
b. Grouping Variable: Q9

Interpretation:
Here looking at the test statistics except for Q10D in almost all case the P value is less than 0.05. So we reject null hypothesis. Thus we can understand that there is a significant difference between mean ranks of the variables.

Results and Discussion

It is evident from the above analysis that majority of the frequent users of green banking services use ATMs the most. Internet Banking/Mobile Banking being the second majorly used service. NEFT/RTGS being the next majorly used service. Green Channel counter being least used service and Credit card facility being the next least preferred service. Majority of the frequent users of green banking services are highly satisfied with ATMs. Internet Banking/Mobile Banking being the second majorly satisfying service. NEFT/RTGS being the next service which has satisfied the users. Users of credit card has least satisfaction level and the users of Green Channel counter being the next least satisfied

Majority of the frequent users of green banking services prefers the services because of the user-friendliness. Proper Customer Grievance and Technological advancements being the second and third major reason for the preference of green banking services. Frequent users care less about trust, privacy and customer centricity.

Majority of the frequent users of green banking services accept that use of Green banking services reduce traffic which will lead to low carbon emission and less use of fuel. Next majority believe that it will reduce trips to banks there by reducing the energy utilization of banks and will also lead to paperless banking. Thus, frequent users of green banking services accept that use of Green banking services leads to cost effectiveness, saves time, easy to handle, can be accessed quickly and is convenient to use.

It is evident from the survey that ,majority of the frequent users of green banking services accept that use of Green banking services improves bank's image and customer relationship. Next majority feels that green banking services increases bank's profit. Next majority feels that these services leads to boundary less network among customers and bank.

Conclusion

It is evident from the present research that now customers are using few green banking products like ATMs, Net banking,online services etc.It is found that there is a strong relationship between qualification and expertise in the use of green banking services. Our results are consistent with the study conducted by (Bibhu Prasad Sahoo , Singh Amandeep ,Jain, Neeraj (2016) on the topic "Green banking: Problem and Prospects". Results have shown that there is significant difference in the usage of green banking products across various age groups individuals, as young generation is more inclined towards green banking products than middle age and senior age groups.

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Economic Attractiveness vs. Political Challenges in Japan's Foreign Investment Decisions

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Economic Attractiveness vs. Political Challenges in Japan's Foreign Investment Decisions

Abstract

The paper addresses the collision between economic attractiveness and political constraints in FDI. By analyzing Japan's energy sector and its structure and focusing on Japan-Russia energy economics, the author argues that hydrocarbon import-dependence motivates Japan to cooperate with the resourceful and geographically proximate Russia, especially after the 2011 Great East Japan Earthquake. However, political factors (Japan's domestic energy policies, state of Japan-Russia political relations, and the level of political risks for Japanese FDI in Russia) impede Japan-Russia cooperation in the energy sector. Assuming that key political drivers may independently impact investment decisions, the author concludes that scenarios for future economic cooperation respond to the composite configuration of all major political drivers and that the Japanese government's intervention plays a major role in sustaining energy cooperation.

Keywords: international business policy, political risk, political environment, energy, Japan, Russia

Economic Attractiveness vs. Political Challenges in Japan's Foreign Investment Decisions

INTRODUCTION

In an era of globalization, cross-border economic cooperation contributes to growth and prosperity and business organizations look for attractive targets in host countries to benefit from accelerated cross-border trade flows and foreign direct investment. However, economic cooperation, and more precisely foreign direct investments (FDI), are moderated by (a) domestic policies in the home country, (b) the state of bilateral political relations between home and host countries, and (c) the political risk of doing business in the host country. These political factors combined may contribute to or impede effective economic cooperation.

Theoretical explanations of interrelationships between economic cooperation and political environment stem from developments in institutional economics and, more precisely, the public choice approach to political economy that has long stated that nations adjust trade and investment ties to satisfy security as well as economic welfare goals (Pollins 1989; Bardhan 2005). Empirical evidence is considered in predictive models that demonstrate a causal effect of political relations on trade, more pronounced in strategic goods like minerals or fuels (Reuveny & Kang 1998). Furthermore, the incorporation of political risk analysis into this discussion has value in predicting potential foreign investment scenarios (Quan & Baek 2011; Torre & Neckar 1988).

In selected cases, the specific content of cross-border cooperation is moderated by greater import dependence in the home country, and in select industries, political effects respond to industry's role in national security. Japan is a distinctive case of a major economic power where hydrocarbon import-dependence is intertwined with the distinctive role of the energy sector is closely tied to national security and government industrial policy.

This study explores the relationship between political factors and FDI in the energy sector in Japan and focuses on its economic cooperation with Russia in this sector. The paper combines qualitative study and quantitative analyses of Japan-Russia energy cooperation in response to hypotheses that connect this cooperation to political drivers. The discussion of the economic attractiveness of energy cooperation between Japan and Russia is followed by the analysis of political drivers, namely domestic policies, bilateral relations, and political risk for FDI in the host country and is further elevated to scenario-building for Japanese foreign investment.

PROBLEM DEFINITION AND WORKING HYPOTHESES

Complex relations between economic attractiveness and political impediments are particularly augmented in the global energy sector, where matters of energy security and relevance to national political interests complicate the potential for economic cooperation between countries. The collision of economic attractiveness and political inhibitors is aggravated in cases of countries highly dependent on foreign energy sources.

Since the mid-20th century, the world's approach to energy has experienced a crucial shift. Beyond its use for electrification and the sustainment of societies, provisions of energy supplies have become essential to national security, affecting domestic infrastructure, military strength, and a nation's measure of power and influence. Simultaneously, global crises, such as the 2008 financial crisis or the 2020 coronavirus pandemic, have exposed vulnerabilities in global energy supply chains. Hence, obtaining maximum energy self-sufficiency, minimizing risks in importing energy sources, and preserving relations with reliable energy trade partners are crucial for survival in an energy-hungry world.

These concerns have, however, significantly marginalized Japan – the world's third-largest economy, yet one of the world's most over-dependent energy consumers by GDP (OECD 2020). Amidst heavy investments in and dependence on regions with high political risk, primarily the Middle East, accompanied by a diminishment of domestic energy production, the diversification of energy supplies in

Japan becomes critical in an increasingly competitive global energy market. This strive for diversification, in turn, encourages energy-cooperation with countries rich in hydrocarbon resources.

For Japan, a country extremely dependent on hydrocarbon imports, such cooperation is a logical way to address domestic energy resource scarcity (Vivoda 2009). Russia, as one of the top global exporters in geographic proximity to Japan, is a natural partner for cooperation in the energy sector (Pajon 2020; Ershova, 2017; Sugimoto 2013; Korppoo & Ikeda 2006). In turn, it is in Russia's best interests to extend and diversify its energy exports (Timonona 2016) to and engage in technological cooperation with Japan (Belov 2016). However, the potential for Japan-Russia cooperation is impoverished and far from developed due to each country's domestic policy orientations and historical complications in Japan-Russia foreign relations (Yennie-Lindgren 2018; Brown 2013). Furthermore, Japan's government has been traditionally providing strong support to private businesses' FDI in the energy sector through intergovernmental negotiations up to the highest political level, government-business structures and networks that support FDI, and direct involvement in large-scale investment energy projects abroad, including Russia.

Hence in this line of thinking I assume that the potential for Japan-Russia cooperation is impeded by non-economic factors, namely political drivers , and come up with two hypotheses for qualitative and quantitative analysis of the case.

First, I conduct qualitative and quantitative analyses to reveal the role of each major political driver, namely (a) Japan's domestic energy policies, (b) bilateral Japan-Russia political relations, and (c) political risks for Japanese FDI in Russia in Japan-Russia energy cooperation.

H1. Each major political driver (Japan's domestic energy policies, bilateral political relations, and political risks for Japanese FDI in Russia) impedes Japan-Russia economic cooperation in the energy sector.

Furthermore, I hypothesize that the enhancement or inhibition of FDI depends on a specific combination of those drivers.

H2. A combination of political drivers moderates variations in Japan-Russia cooperation in the energy sector.

Existing mainstream literature in this research area is mainly discipline-tied, focusing either on the economic dimension of cooperation or on political aspects in Japan-Russia relations. Multi-disciplinary studies that combine both streams and seek causal links between them are rare. This discussion is intended to close the gap and address the working hypotheses with the following agenda.

First, I focus on Japan-Russia energy economics and by analyzing Japan's energy sector and its structure provide arguments that hydrocarbon import dependence motivates Japan to cooperate with resourceful and geographically proximate Russia, especially after the 2011 Great East Japan Earthquake.

Second, I review political factors that influence Japan-Russia cooperation in the energy sector (domestic energy policy, unresolved bilateral issues and Russia's political risk for Japanese FDI) and offer arguments about the underdevelopment of economic cooperation due to their negative effects.

Third, assuming that key political drivers (Japan's domestic energy policies, the state of Japan-Russia political relations, and the level of political risks for Japanese FDI in Russia) may independently impact investment decisions, I design several brief scenarios for potential economic cooperation in response to the composite configuration of those drivers based off the research in this work.

THE CASE: JAPAN-RUSSIA ENERGY COOPERATION

Japan's energy economics

Historically, in the second half of the 20th century, Japan's highly advanced economy grew increasingly dependent on manufacturing, resulting in high national energy usage. As of 2016, around three-quarters of Japan's energy continued to be used for industrialization, primarily for vehicles, factories, and heating, while only the remaining fourth is used for direct electrification (Patrick 2016). This sustained growth has made Japan one of the world's largest energy consumers behind only the United States and China.

As of FY 2017, Japan's energy mix was primarily composed of fossil fuels, namely coal, oil, and LNG, as well as a significant combined percentage of nuclear, hydroelectric, and renewable energy (Wilson 2019) as displayed in Figure 1.

[INSERT FIGURE 1 ABOUT HERE]

In Japan's power supply structure, *hydrocarbons* account for 87.5%, with 23.4%, 25.1%, and 39.0% being attributed to LNG, coal, and oil, respectively as of FY 2017 (METI 2019). Demand for and the consumption of oil in Japan has been continuously decreasing since the oil crises of the 1970s in a national effort to diversify energy sources. Despite this, oil remains the largest source of primary energy consumption in Japan (EIA 2020). Natural gas is Japan's second-largest source of energy and powers much of the electricity in the nation. In 2010, coal accounted for 27% of Japan's electric capacity (ibid.).

Japan has also seen significant increases in *renewable energy*, which accounted for 16% of Japan's power source mix and 8.1% of its total power generation in FY 2017. Japan's renewable energy percentage (excluding hydroelectric) in FY 2017 was higher than that of China, Canada, or France, and approached that of the U.S. at 9.9% (ibid.), reflecting Japan's energy policy emphasis on developing green alternatives to its heavy hydrocarbon dependency.

The *nuclear energy* sector has seen the most rapid transformation in Japan in the past decade. Prior to the 2010s, the ratio of Japan's use of nuclear energy demonstrated progressive annual growth and acceptance despite the social stigma around nuclear reactors in Japan, stemming from the bombings of Hiroshima and Nagasaki. Nuclear energy generation had significantly increased, from approximately 1% of Japan's energy supply in FY 1973 to representing over one-tenth of the energy supply and 27% of total domestic power generation in FY 2010. However, in response to a change in government policy after the 2011 Great East Japan Earthquake and Tsunami that destroyed the Fukushima Daiichi Nuclear Power Plant, as of FY 2017, only 3.1% of total power generation in Japan was derived from nuclear power sources, marking the end of the 20th century's "nuclear renaissance" (Yergin 2012).

Due to the decrease in the availability of nuclear energy, Japan's other energy sources, particularly the hydrocarbon and renewable energy sectors, have been forced to bear the burden and overcompensate to account for the loss, reflecting increases in their proportions of Japan's energy mix.

This structure creates unprecedented pressure and dependence on fossil fuels energy imports despite recent efforts to increase Japan's own natural gas production in the north of the country. The country's energy self-sufficiency ratio remains extremely low, 9.6% in 2017, ranking it the 2nd lowest among the OECD countries, ahead only of Luxembourg (METI 2019). With Japan's 99.7%, 97.5%, and 99.3% dependence in FY2017 on imported crude oil, LNG, and coal, respectively, relations with importing countries and an awareness of their dependency and political risk are crucial to the stability of Japan's energy-imports (ibid.). Figure 2 displays the major sources of hydrocarbon imports.

[INSERT FIGURE 2 ABOUT HERE]

An evaluation of Japan's energy import partners reveals the dominance of three global regions: the Middle East, Southeast Asia and Oceania, and Russia. Due to its dependency on international imports, regional security is crucial for Japan both in the Middle East and Southeast Asia to guarantee the safe transport of energy resources. Associated political risks and the cost of transportation, as well as the long shipping period, depend on the safety of the regions from which Japan exports and through which it transports. Transport of LNG from the Persian Gulf, for example, takes approximately one month to reach Japan and results in substantial transportation costs (Kurimoto 2020). Imports from North and Central America, which remain significantly present in the Japanese energy market only in coal imports, reflect a close relationship between the U.S. and Japan, despite the higher transport costs and prices of the U.S.-sourced hydrocarbons, including shale.

However, a geographical analysis reveals that Russia is the only key player significantly present in *all three types* of fossil fuel imports to Japan and positioned among the *top five* importers for all three categories. This strengthens its attractiveness to Japan as the strategic energy partner.

Economic opportunities in Japan-Russia energy cooperation

Japan's geographical neighbor to the northeast, Russia, presents an opportunity for the development of strong mutual economic ties. While proximity, specialization, market size, and market demand encourage economic cooperation between the two countries, their share in each other's total foreign trade is far from distinguishable. Russian experts emphasize the "low intensity of trade relations," as Japan's share in Russia's imports in 2005-2013 ranged between 1.5% and 3.2% and Russia's share in Japan's imports ranged between 1.2% and 3.1% (Yergin 2012). Energy imports, namely fuels, from Russia to Japan dominate total Russian imports (83.2% in 2013) while machinery, transport, and electronics account for 83% of Japanese exports to Russia, shaping the trade structure in the form of minerals in exchange for technology (METI 2019).

A similarly unfavorable pattern applies to FDI. Japanese outward direct investment in Russia, almost non-existent before the dissolution of the Soviet Union, in the decades that followed, displayed growth however with utmost deviations in response to either government-backed mega-projects (like the Sakhalin projects) or politically motivated Western sanctions.

According to the Japan External Trade Organization (JETRO), outward FDI peaked at 757 million dollars in 2012, dropping to 109 million dollars in 2016 and reaching the level of 396 million dollars in 2019 (JETRO 2020). Japan's presence in Russia accounts for 2.6% of total inbound FDI in 2018 and Russia's investment presence in Japan in 2005-2013 ranged between 0.13% and 0.62%. However, selected industries like agriculture and forestry, extraction, car manufacturing, and energy resources are visibly higher, topping in energy with 13.4%, mostly concentrated in Eastern Russia (METI 2019). Figure 3 illustrates the recent fluctuations in Japan's FDI outflows to Russia.

[INSERT FIGURE 3 ABOUT HERE]

About 600 Japanese companies have invested in Russia and annual surveys conducted by JETRO displayed only moderate optimism about doing business in Russia. According to surveys from 2014 and

2015, Japanese businesspeople refer to multiple barriers and complications such as currency volatility, uncertainty in political and social development, and bureaucracy. Less than half of those surveyed expected an increase in profits and only 44% planned to grow their business further (JETRO 2020b).

Despite mutual historical challenges and the countries' different approaches to cooperation, Japan's abovementioned high rate of energy consumption is an ideal counterpart for Russia's high rate of energy production (Vassiliouk 2008). For Japan, this cooperation would support the need for self-sufficiency by diversifying import partners beyond the politically vulnerable Middle Eastern and unsafe Southeast Asian transport routes. The proximity of the Russian territory contributes to crucial security for LNG imports, particularly considering the hydrocarbon's short-term storage. Furthermore, most of Russia's joint large-scale planned or running liquefied natural gas projects include either a Japanese private company owner or the involvement of government-tied Japan Oil, Gas and Metals National Corporation (JOGMEC 2020). Beyond improving Japan's energy source distribution, the opportunity for a strong energy-relationship with Russia becomes equivalent to the impact of strong bilateral political cooperation for Japan and can serve as a foundation for cooperation in other areas of mutual interest.

Russia maintains similar reasons to contribute to its effort in attracting Japan-related investment. Considering the stagnating demand for Russian fossil fuels in the West, spurred by controversy and sanctions over Russia's annexation of Crimea and situation in Ukraine, Russia's "pivot to Asia" in search of desirable Asian markets finds an opportunity in Japan's lucrative high-consumption market. Due to Japan's close cooperation with American oil and gas companies, a stronger relationship with Japan would provide the U.S. with more incentives to continue their high-stake investment in energy projects in Russia. Additionally, with existing projects in south-eastern Russia carried out in cooperation with China, Japan's high-transparency and business-oriented culture would provide an excellent supplementary opportunity for Russia's upper hand negotiation and impede the development of a Russia-China economic alliance.

In broader terms, Japanese experts encourage the country to design and implement a long-term energy strategy for Russia that responds to new uncertainties in political risk, the development of energy

markets in northeast Asia, and an understanding of Russia's needs to make the best use of Japan's competitive advantage in terms of technology, experience, and know-how in energy conservation, environmental protection, or renewable energy (Koyama 2009, 6). Furthermore, integrating "green" components and compliance with the Kyoto Protocol in designing and implementing large-scale projects supported at the government level may contribute to connecting points between two countries and help diversify Japanese investment in Russia (Korppoo & Ikeda 2006).

POLITICAL FACTORS' EFFECTS IN ECONOMIC COOPERATION

Three major political drivers impact Japan-Russia economic cooperation, namely (1) Japan's domestic policies in the energy sector, (2) Japan-Russia bilateral relations, and (3) political risks for the Japanese FDI in Russia.

Japan's domestic energy policies

In March 2011, the Great East Japan Earthquake and Tsunami destroyed three reactors at the Fukushima Daiichi Nuclear Power Plant, resulting in nuclear fallout and high levels of radiation exposure. In response to the disaster and public pressure, the plant's owner TEPCO (Tokyo Electric Power Company) initiated a government-funded decommissioning of the plant that pushed Japan to adopt a plan to phase out all nuclear power plants by 2040, a plan supported by then Prime Minister Yoshihiko Noda (Tabuchi 2012). The major shift in nuclear energy-related policies in Japan gave rise to an intense search for alternative energy sources, specifically fossil fuels, to respond to the changes in the structure of energy redistribution. Thus, the Japanese government acknowledged the situation under which the redistribution of energy sources in Japan since 2011 and the emphasis on increased fossil fuel usage have negatively affected key national sectors and require future development of alternative dependency scenarios.

The restructuring of the energy sector was accompanied by the undesirable social consequences of previous policies. The greater reliance on fossil fuels has caused a change in energy prices in Japan, particularly increasing the price of electricity for consumers (Estes 2015). For example, from 2010 to 2017, electricity prices in homes have increased by 23%, while industries have seen a 27% increase in

electric power rates (METI 2019). Additionally, the temporary shift away from nuclear energy has resulted in severe revenue losses for government-sponsored electric utilities and has contributed significantly to Japan's high government debt (USEIA 2017, 32). The increased fossil fuel usage is also making Japan's unequally distributed aging population especially vulnerable to the incessant use of hydrocarbons in the next 30 to 40 years (Weistein & Schell 2012), as levels of air pollution and greenhouse gases in Japan persist despite recent record lows in emissions (Reuters 2019). Thus, the re-distribution of energy sources in Japan since 2011 and the emphasis on increased fossil fuel usage have negatively affected key national sectors and require future development of alternative dependency scenarios.

Since taking office in 2012 and in response to the disadvantageous situation in the energy sector, Prime Minister Shinzo Abe advocated for the reversal of this policy and argued that Japan "cannot do without" nuclear power (South China Morning Post 2016). Abe pushed for a gradual return to restarting nuclear reactors, which actually began in 2015. This move was a key component of Japan's "new energy policy" that was based on pragmatism, stability, energy cost reduction, and sustainability (ANREJ 2020). Under Prime Minister Suga, Abe's policy of "nuclearization" is expected to continue, as previously shut-down plants continued to resume operation in 2020.

Founded in response to the 1973 oil crisis Japan's Agency for Natural Resources is responsible for energy-related policies in Japan facilitating relations between partner trading countries as well as domestic agendas. Together with the Ministry of Economy, Trade and Industry (METI) it acknowledges an international resource strategy concerning known consequences of Japan's energy landscape, including "increasing presence of new producers such as USA and Russia," acknowledging that the "situation in the Middle East is becoming tense," and confronting "market control and export restrictions" of rare metals by China (MOFA 2019)

Overall, the perceived changes in Japan's domestic energy policy were deemed necessary to adjust to the knotty situation of current heavy reliance on fossil fuels, the associated costs and domestic social challenges, swings in nuclear energy generation, and increasing energy consumption after 2011.

The governments' success in the transition to self-sufficiency may impede interest in cooperation with Russia in the energy sector.

Japan-Russia bilateral political relations

Japan-Russia economic relations are held hostage by the historic collision between the two countries evidenced in the lack of a peace treaty and Russia's drift towards greater isolationism in international relations accompanied by Western sanctions.

The key issue in the development of the Russia-Japan relationship is the territorial disputes over the Kuril Islands that determine the countries' modern foreign policy tensions. Apart from a rich potential fishing economy, the islands provide a military-sensitive position at the meeting of the Sea of Okhotsk and the Pacific Ocean. The volcanic island chain's sovereignty is symbolically re-evaluated annually at joint Russia-Japan government forums yet remains unsolved since 1945. This issue has also been recently exacerbated by Russian military flyovers over the islands as well as Russian officials' visits to Japan-claimed islands, including Prime Minister Medvedev's trip in late 2019 (Ikeda 2020). Furthermore, for Japan, whose territory is 45 times smaller than that of Russia, strengthening territorial sovereignty and considering public opinion remains a key item in its political agenda.

In the past decades, territorial claims have been emphasized by Japanese politicians like Yasuo Fukuda, Taro Aso, and Naoto Kan. Japan has consistently reaffirmed its claims to the islands, even proposing subsidies and economic development assistance to residents in relevant industries, such as fishing (Brown 2017).

During his service as the Prime Minister, Shinzo Abe had made the resolution of Russia-Japan relations a purpose of his leadership since 2012, consistently reaffirming his aspirations upon every re-election. On a personal level, Abe is well-known to reflect upon his father's, Shintaro's, personal intellectual proximity to Russia and Russian leaders such as Gorbachev. Shintaro Abe's dying wish was known to be the resolution and return of the four Kuril Islands, and Shinzo Abe, who accompanied him on diplomatic trips to Russia, was likely heavily influenced by his father's ambitions.

President Vladimir Putin, on the other hand, is likely motivated by issues of nationalism, territorial sovereignty, and economic gain from the return of the four islands and a continuation of economic relations with Japan. In addition, Russian national and foreign policy emphasizes a no-concession foundation; and the return of the islands to Japan, in President Putin's eyes, is a sign of weakness not only to Japan but also to the U.S. in light of growing tensions.

In the 2010s, the tone in Japan-Russia political dialogue was shaped by known personal relations between Abe and Putin. The development of the bilateral Japan-Russia relationships as seen through the lens of the 29 one-on-one conversations between Abe and Vladimir Putin since December 2012 reveals key milestones founded on the ever-changing approaches of the two leaders. In November 2014, after the annexation of Crimea, Japan had imposed limited sanctions on the Russian Federation, particularly minor compared to those imposed by the Obama administration in the U.S. The meeting between Abe and Putin on the sidelines of the APEC Forum in Beijing heavily focused on repairing ties between the two countries and mentioned the potential for economic cooperation, as well as a brief mention of optimism for the resolution of the territorial talks. The May 2016 meeting produced the first written and proposed eight-point plan by the Japanese Government to better relations and cooperation between the two countries which listed energy among top priorities (METI 2016).

Japan chose to pursue its foreign policy interests quite independently of the influence of the U.S. The April 2017 meeting between the two leaders, powered by Abe's visit to Moscow and Putin's visit to Japan four months prior was publicized for the two leaders' discussion on the North Korean threat and acknowledgment of Abe's eight-point economic plan, noting that the agreement has entered its final stage. In addition, as of June 2018, President Putin agreed to Prime Minister Abe's requests to allow Japanese citizens to visit the graves of their ancestors buried on the Kuril Islands. Furthermore, the parties established entry and exit points for the Island chain for both sides which was the first legislative advancement in regional politics on the islands. Finally, the November 2018 meeting marked the acceleration of Japanese pressure on the peace treaty negotiations along with Japan's increased openness to the conditionality of the peace treaty. Japan revealed a new point of discussion – the return of two

islands, as opposed to the consistently demanded four; and affirmed its departure from full adhesion to the political agenda of its most important ally. Abe noted that if conceded, the Japanese government will not place any American troops or bases on the islands, particularly considering the Kuril Islands' geographic proximity to the Russian coast. This change in stance may have likely been catalyzed by the fact that the Abe administration could have felt that time was running out to solve the Russia-Japan conflict before the end of his term, accelerating peace talks and succumbing to conditionality. The June 2019 meeting at the G20 meeting in Osaka, Japan was a symbol of stagnation for the relationship between the two parties due to Putin's assertion that no consolidation or negotiations about the territorial dispute will occur so long that Japan maintains its security alliance with the U.S.

Frequent personal meetings between country leaders and their discussion about economic cooperation attest to the governments' intervention in energy sector. However, Russia is unlikely to change its stance on the issue of territorial sovereignty, stagnating bilateral talks and negotiations for years to come.

Under the current leadership of the new Prime Minister Suga, who accompanied and echoed many of Prime Minister Abe's concerns about cooperation with Russia, the issue is likely to stagnate from the Japanese side as well. Suga has been known for defending Japan's territorial claim while serving as Chief Cabinet Secretary, noting that "[Japan's] position that the Northern Territories issue is resolved before any peace treaty remains unchanged" and that "the government will continue its negotiations on the basic principle that we will sign a peace treaty after resolving the issue of the attribution of the Four Northern Islands." The lack of ongoing negotiations in the digitalized era of diplomacy also reveals a growing bilateral disinterest and diminishing importance of salvaging the Russia-Japan personal relationship from both Suga and Putin.

Hence, it is most likely that in the medium-range perspective, the state of Japan-Russia bilateral relations will be impeding the economic cooperation, especially in light of ensuring business investment initiatives in Russia.

Political risks for Japanese FDI in Russia

A significant limitation of the quantitative analysis is the lack of data about Japanese investment flows in Russia in the energy sector. The high sensitivity of the oil-snd-gas and refinery industries results in missing data points in annual reports and statistical databases for both the Japanese government (Bank of Japan, METI, Ministry of Finance), as well as in Russia (Ministry of Energy, Central Bank). In fact, METI excludes data about country-specific investments in energy for very few countries, one of which is consistently Russia. The latter country, on the other hand, holistically ignores the country-by-country breakdown of energy exports and only publishes government statistics on total annual crude oil and natural gas exports. An additional complication of statistics concerning the energy sector in Russian investments specific to Japan relates to the processing of data. Many Japanese FDI investments in Russia are processed through European offices, such as in London and Amsterdam. In turn, these data often does not fit into the totals released by Tokyo, further complicating a quantitative analysis of the trend. Nevertheless, the total available numbers for Japanese FDI in Russia, corroborated by selected equal data from Russian customs and JETRO, along with the evidence that energy projects dominate Japanese FDI flows into Russia can be used for the analysis of economic cooperation and the long-term assessment of its relationship with political risk.

Japan's presence in Russia accounts for only 2.6% of total inbound FDI in 2018 with energy projects topping the industry list (JETRO 2020a). One of the key factors in low Japanese investment activity is the relatively high political risk* for foreign direct investment in Russia (Country Risk Reports 2019, Brink 2017). Despite the acknowledgment existing about the relationship between political risk and foreign direct investment between energy high-dependency and high-production countries, limited research exists about causal patterns between high political risk and Japan's FDI flows, particularly with Russia. It demonstrates an awareness of Japan's cultural and investment climate differences with Russia

* Generally speaking, political risk is defined as "the probability that political decisions, events, or conditions will significantly affect the profitability of a business actor or the expected value of a given economic action" (Badie et al. 2011), as "the probability distribution that an actual or opportunity loss will occur due to the exposure of foreign affiliates to a set of contingencies that range from the total seizure of corporate assets without compensation to the unprovoked interference of external agents, with or without governmental sanction, with the norlal operations and performance expected from the affiliate" (Torre & Neckar 1988, 224).

(Podoba 2018) but acknowledges the large-scale economic and security returns for Japan despite high risks of FDI loss (Tokunaga and Suganuma 2020). Russia's high-risk assessment stems from a lack of modernization, unilateral economic profile, a lack of rule of law, and high levels of corruption, bureaucracy, and sanctions (Panung 2018). Leading European investment insurance group Credendo evaluates Russia's medium/long-term political risk in 2015-2019 at 4/7, the expropriation risk at 5/7, and the political violence risk at 4/7. Figure 4 displays OECD's assessment of political risk to FDI in Russia (Credendo 2019).

[INSERT FIGURE 4 ABOUT HERE]

To support the argumentation of the paper with quantitative methodology, I use a Pearson correlation coefficient from data connecting political risk and FDI from Japan to Russia. The OECD publishes data in annual quartiles or quintiles to reflect Country Risk Classifications of the Participants to the Arrangement on Officially Supported Export Credits Paris (OECD 2020c), addressed as an integer from 0 (least risk) to 7 (most risk). According to the organization, these values represent "country risk [that] encompasses transfer and convertibility risk (i.e. the risk a government imposes capital or exchange controls that prevent an entity from converting local currency into foreign currency and/or transferring funds to creditors located outside the country) and cases of force majeure (e.g. war, expropriation, revolution, civil disturbance, floods, earthquakes)" (OECD 2020b). In other words, this is not a sovereign risk index but rather a holistic value that reflects a combination of political factors as well as investment climate risks. The combination of these qualitative factors with a quantitative Country Risk Assessment Model (CRAM) allows for a value generally reflective of major changes in the national environment for political risk in respective countries.

In turn, the analysis examines the average of the values provided for each year from 2000-2019, calculated to the nearest tenth for Russia. For example, a year with five ratings such as 3, 3, 3, 3, 4 would use 3.2 to represent an average political risk for the fiscal year.

Running a Pearson correlation coefficient with the FDI from Japan to Russia from 2000 to 2019 results in a strong correlation of -0.606. Using n=20 for the 20 years of data the results produce a t-statistic of -3.232. With df = n-2 = 18, we have an indicator of p = 0.0046 in a two-tailed test. Hence, my result is significant at $p < 0.01$. This demonstrates the statistically significant relationship between Japanese FDI in Russia and variation in political risk in Russia meaning that an increase in political risk in Russia increases instability, in turn decreasing Japanese FDI in the country.

[INSERT TABLE 1 ABOUT HERE]

Assembling a 95% confidence interval for the relationship, using the Fisher z-transformation, results in a lower threshold of $\rho = -0.83$ and an upper threshold of -0.23. Hence, I can conclude that there is a significant negative correlation between the dependent (FDI) and independent variable (political risk).

This interpretation, namely that there is a strong negative correlation between political risk and FDI, reflects our earlier assumptions about the sensitivity of Japanese business investment to political risk in Russia due to the close relationship between business and government interests. Graphically, both the graph of average annual political risk in Russia and the Japanese FDI in Russia demonstrate similar, but opposite trends. For example, the 2015 sanctions on Russia as a result of the known situation in the Ukraine show a simultaneous increase in political risk (3/7 to 4/7) and a drop in Japanese FDI (468 million USD to just 109 million USD in 2015-2016), mirroring the negative relationship.

As an extension of this significant result, it is of interest to examine another variable and its sub-variables used to determine the economic and investment climate for FDI in Russia - the Foreign Direct Investment Regulatory Restrictiveness Index (FDI RRI) from the OECD (OECD 2020b). This measure takes into account foreign equity restrictions, screening, and prior approval requirements, rules for key personnel, as well as other restrictions on the operation of foreign enterprises. This composite index is particularly relevant as Russia demonstrates one of the highest levels of regulatory restrictiveness in the world.

The relationship run between FDI from Japan to Russia and each of the FDI RRI variables can help identify particular concerns of Japanese companies towards the investment climate, built on the assumption of a high-risk but high-reward approach to the energy sector investment and with political risk deterring investment. Table 2 displays the results of the tests.

[INSERT TABLE 2 ABOUT HERE]

Upon running a correlation between Country Risk (OECD 2020c) and each of the categories of FDI RRI, the following results were achieved in a ten-year timespan (2010-2019) at n=10. These results support the general correlation with political risk – increases in Russian political and economic impediments, as well as regulatory obstacles to Japanese businesses, reduces interest in investment relations between the two countries.

The results, although not statistically significant, mirror the investment climate in Russia for Japanese companies. Equity restriction demonstrates a negative correlation (r=0.323), supporting the claim that higher barriers to transfer and investment deter Japanese FDI in Russia. The positive correlation with Screening and Approval supports earlier discussions about the emphasis placed on transparency by Japanese companies (r=0.226). The lack of correlation between key foreign personnel reflects Russia's state-controlled business climate (r=-0.05). With majority ownership in most joint projects, including bilateral LNG investment projects, key personnel remain of Russian origin, rather than replaced with the Japanese expat presence. Finally, the negative correlations with the Other Restrictions category also mirror the result of the first correlation coefficient, supporting the argument that higher regulation in Russia impedes incoming Japanese FDI flows (r=0.222).

These results demonstrate existing concerns and barriers for Japanese companies engaging in FDI in Russia. However, these also affirm the relationship covered in this paper connected to political factors. In other words, despite regulatory FDI barriers for Japanese companies, their backing by the Japanese

government and continued interest in energy trade with Russia demonstrates the unique relationship between the two countries.

Overall, qualitative analysis and quantitative assessments of three major political drivers, namely domestic energy policies, bilateral relations, and political risk for Japanese FDI reveal their negative effects on Japan-Russia cooperation. Hence, the findings support Hypothesis 1.

COMPOSITE EFFECTS OF POLITICAL DRIVERS ON ENERGY COOPERATION

While the findings advocate for a pessimistic assessment of the role of each of the major political drivers in Japan-Russia economic cooperation in the energy sector, FDI decisions are made with a consideration of future trends and respond to the changes in the external environment of business. Hence, the analysis may be advanced to a dynamic perspective on the role of those drivers and furthermore, on their composite effects on cooperation in the future. This approach incorporates scenario-building tools and displays potential alternatives in developing economic cooperation.

Three major political drivers in economic cooperation discussed above display different responsiveness and susceptibility to change in the short and medium-term perspectives.

The first driver, domestic policies, experienced visible shifts in the previous decade in response to the 2011 earthquake disaster and government initiatives, mostly in the area of nuclear energy and sustainable energy sources. In response to those swings, the share of nuclear energy in the total energy mix fluctuated between 3 percent and 27 percent in total power generation in the past decade. These policies may further impact the government's decisions and may diminish its interest in major international energy projects in case of lowering import dependence. On the other hand, in case of severe social resistance to nuclear power generation, the government may support current and initiate new cooperative projects with Russia.

The second driver, bilateral relations, is not likely to change in the medium-term future because of the countries' leadership's positions clearly outlined above.

The third driver, the political risk for Japan's FDI, depends on changes in Russia's domestic policies as well as the development of infrastructure and business climate to attract these investments. On the positive end of the spectrum, the political risk could be diminished if Russia's government facilitates economic cooperation and improves its relations with the West. The negative end of this spectrum is currently reflected in Russia's growing nationalism, its aggression in foreign policy, and isolationism accompanied by increased sanctions and the outflow of foreign investments from Russia.

A multi-scenario future of Japan-Russia energy cooperation can be seen through the lenses of the interplay of these major political drivers and displayed in a model in which two drivers (energy policy in the home country and political risk in the host country) may be susceptible to change in the medium term and bilateral relations may be seen as a constant. This, in turn, permits the construction of a two-dimensional space and distinguishing among scenarios in response to variations in two factors. Figure 5 displays five scenarios with the vertical axis representing the degree of political risk for Japanese investment resulting from changes in Russia's policies, and the horizontal axis representing the range of Japan's policies in terms of energy self-sufficiency. The size of the scenario bubbles reflects the perceived probability of each scenario.

[INSERT FIGURE 5 ABOUT HERE]

Scenario 1: "Status Quo" (high probability). The status quo scenario displays a situation in which the national policies in Russia and Japan toward one another do not drastically change in the next decade. Under this scenario of sustained political risk for Japanese investment in Russia and a slow increase in nuclear energy usage, a West-oriented Japan would continue its current projects in the energy sector but approach new projects with great caution. Since Russia is unlikely to form a close energy alliance with China to fulfill its energy surplus exports (Zhu 2020), Moscow will continue to encourage sporadic joint projects with Japan in hope of pursuing a serious advancement in their cooperative relationship.

Implications of this scenario fit the ruling LDP party continued majority in the Japanese parliamentary body (Diet) and the executive body (Cabinet), with projections to sweep the 2021 elections despite Abe's departure. As such, the conservative Cabinet is likely to maintain its stance on Russia-Japan cooperation as a stagnated plan. Without a resolution of the Kuril Islands dispute, no formal agreement or peace treaty would be signed upon the assumption of a current cabinet (Higgins 2019). Considering Japan's long-term agenda, the country is likely to gradually develop better levels of nuclear self-sufficiency but not achieve radical pre-2011 levels of nuclear energy usage and desirable self-sufficiency until the late 2020s (Eto 2019, 14). Hence, Japan's energy security will continue to depend on Middle Eastern political tensions, but like Russia, Japan will explore occasional connecting points for future hydrocarbon resources.

Scenario 2: "Worst Case Scenario" (moderate probability). The worst-case scenario considers the intersection of a dramatic increase in political risk to Japanese FDI and Japan's inability to improve its energy self-sufficiency. This scenario reflects pessimistic predictions about the political risk for Japanese investment in Russia due to Russia's increased economic isolationism, human rights violations, and intellectual property theft alongside the negative effects of Western (and Japanese) sanctions on the Russian economy. It increases the probability of the loss of Japanese investment or the loss of the value of the investment as well as a decrease in transactional transparency for Japanese companies, an undesirable change in LNG export cost and tariffs, or the disruption of the Sakhalin projects. In an extreme case, a cut-off from imported Russian hydrocarbons to Japan will cause a domestic manufacturing and economic crisis, catapulting the current economic recession well into the future. In addition, Japan's low self-sufficiency rate means the country will increase dependence on imported fossil fuels and will be pushed towards an aggressive search for alternative sources for energy supplies worldwide, even at a higher cost.

Scenario 3: "Balanced response" (low probability). This scenario reflects the presence of multi-directional forces in Japan-Russia relations in the energy sector. This unlikely scenario is characterized by Japan's substantial increase in national self-sufficiency along with an increase in political risk for Japanese investment in Russia. A potential reduction in Russian oil, gas, and coal imports will have

significant but not disastrous consequences on Japan's energy sector because it will be compensated by a greater domestic reliance on nuclear and renewable energy. Under this scenario, it may be beneficial for Japan to consider the possibility of partial (or complete) withdrawal from significant projects with Russia, primarily in LNG. With a lower dependence on Russian LNG, accompanied by the availability of new energy sources (combined with potentially lower risk access to hydrocarbons in the other regions) as well as an increase in nuclear and renewable energy, JOGMEC and Japanese private companies can instead redirect their investment toward projects that boost self-sufficiency.

Scenario 4: "Common ground" (low probability). This optimistic but low-probability scenario combines Japan's high import dependency with a decrease in political risk for Japanese investment in Russia. It responds to a potential reversal of Russia's nationalistic policies, a reinstatement of democratic practices, and the removal of Western sanctions in the foreseeable future. Spurred by a restored international image and an inflow of foreign direct investment into the Russian economy, the decrease in political risk gives Russian energy markets a strong incentive to export more. This, in turn, provides Japan with an opportunity to extend cooperation to a broader range of joint projects, primarily on more LNG projects, spurring negotiations about efficient energy transportation from Sakhalin to Hokkaido as well as exploring further opportunities in oil and coal import projects.

This scenario can furthermore lead to new forms of large-scale intergovernmental cooperation between the two countries. Rather than relying solely on private co-investment in energy projects, both countries can expand cooperation to sectors beyond energy, resulting in an improvement of bilateral relations. The consequential resolution of a decades-long territorial dispute with Japan alongside the productive negotiations on the Peace Treaty formally ending World War II would also encourage foreign powers to re-evaluate the caution that previously surrounded cooperation with Russia.

Scenario 5: "Best Case Scenario" (low probability). Finally, the best-case scenario would involve Japan's strong efforts to diversify its energy mix, re-establish and grow its nuclear energy sector, increase self-sufficiency, and capitalize on positive changes in Russia and its relations with the West. It will set the stage for the broadening of energy cooperation beyond hydrocarbon imports and will initiate joint projects

in adjacent spheres, notably in nuclear energy and "energo-bridge" to connect countries' electric grids in the future. For example, Japan's growing demand for nuclear fuel imports will offer attractive export and technology exchange opportunities for Russian companies. In particular, progress in intergovernmental cooperation will make Russia an important player in Japan, and even include platforms for research and development between major nuclear energy players such as Rosatom and TEPCO. Additionally, strengthened economic cooperation may facilitate developments in political negotiations over the Kuril Islands, finding mutually acceptable and politically beneficial solutions for both countries.

Overall, the scenario-building displays variations in economic cooperation perspectives in response to the composite effects of the major political drivers and supports Hypothesis 2. It further permits the design of policy recommendations and action plans in response to each potential pathway.

CONCLUSIONS

This paper addressed the public choice problem by using the example of Japan-Russia energy cooperation and the potential for Japan's FDI in the Russian energy sector. It connected recent developments in Japan's energy sector and trends in domestic policies in Japan and Russia with future scenarios for investment projects in the energy sector. It demonstrated Japan's low self-sufficiency rate and high dependence on energy supply imports and discussed the conditions for such hydrocarbon imports that are associated with high transportation costs and risk as well as with importers' political uncertainties. It further emphasized that, with a presence in all major energy supplies, Russia is uniquely positioned in Japan's energy import mix to develop its relationship with Japan. However, economic opportunities in Japan-Russia energy cooperation are limited by their political environments, which demonstrate the energy cooperation challenges in balancing economic attractiveness and political barriers. The study revealed the negative effects of each major political driver and hence, confirmed Hypothesis 1.

The paper offered a strategic perspective on the interplay between economic drivers and political challenges in Japan's FDI decisions. It provided arguments in support of variations in Japan-Russia

energy cooperation depending on a composite configuration of the major political drivers and hence, confirmed Hypothesis 2.

The predictions for the future presented in this study are mostly pessimistic. Based on the analysis of trends in Japan's energy mix, its imported energy sources, and on the review of the major political drivers for Japanese investment in cooperation with Russia, it is not likely that substantial changes will occur within the medium-term timeframe. This trend will be driven by domestic political agendas in both countries, evidenced in the perceived stability of Putin's rule in Russia in the 2020s and the Suga Cabinet's policy of a slow gradual revival of the nuclear energy sector. Combined with uncertainty about negotiations over the Peace Treaty, and in response to the dynamics in political risks, the bilateral energy relationship will most probably sustain existing projects between Japan and Russia but will not lead to breakthroughs in cooperation.

Optimistic scenarios are unlikely in the medium-term range. However, despite their low probability, they should be considered in creating outlooks responding to the reallocation of resources and the re-assignment of responsibilities in strategic decision-making. These scenarios reflect the possibility of a reversal in Russia's relations with the West and a U-turn in FDI flows accompanied by the potential signing of the Peace Treaty. In the best-case scenario under these conditions, Japan and Russia can extend their cooperation to joint research and innovative start-ups in existing energy supplies and in nuclear energy that combine their respective advanced capabilities and explore other mutually beneficial areas for cooperation.

The practical implications of this study may assist business managers and policymakers in their strategic decisions about long-term economic cooperation between Japan and Russia and add valuable arguments to political negotiations. In particular, major Japanese investors and government stakeholders should consider a "multi-scenario future" pattern in decision-making in the energy sector, design action plans in response to each potential scenario with the framework for allocation of resources, run "stress tests" that consider potential shifts in developments in response to the changes and factors discussed in this thesis.

The study has known limitations due to insufficient availability of financial and business data about private investment projects and lack of knowledge about failed international business negotiations or cross-border mergers and acquisitions. Furthermore, ambiguities in methodology and data complicate the transition of qualitative findings into predictive econometric models.

Overall, the research adds to literature about the conditionality of economic cooperation stemming from alternative combinations of political factors and suggested a closer look at complex scenario-building to forecast and best prepare for challenges in a particular case of the Russia-Japan relationship in the energy sector. In conclusion, the study encourages stakeholders with business interests in the energy sector, government strategy-makers, and business leaders to carefully evaluate a complex and complicated set of political-economic causal links in pursuing international business.

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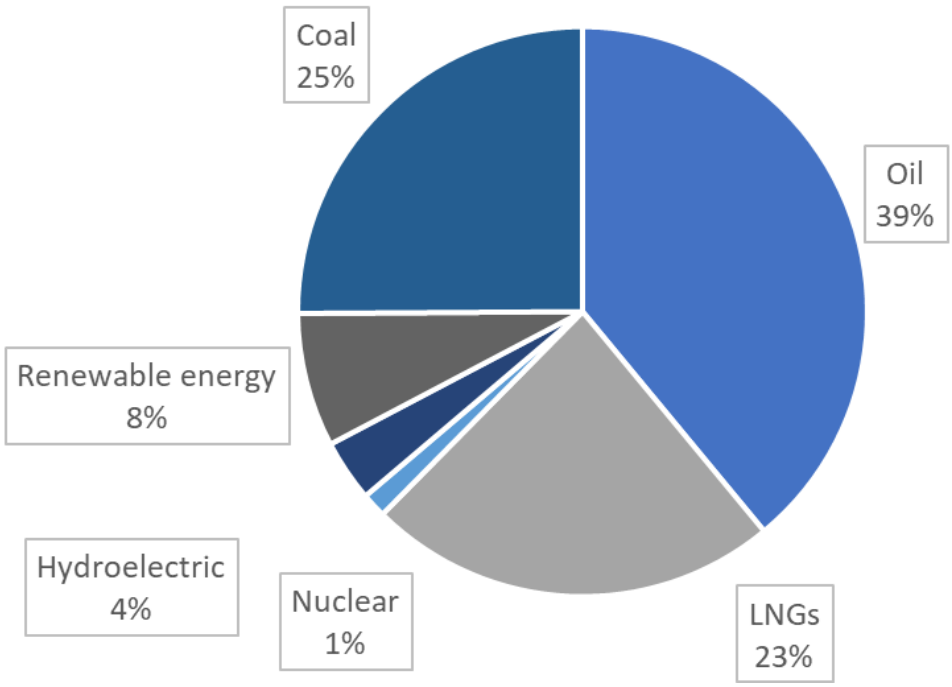

Figure 1. Japan's energy supplies mix (FY 2017)
Source: (METI 2019)

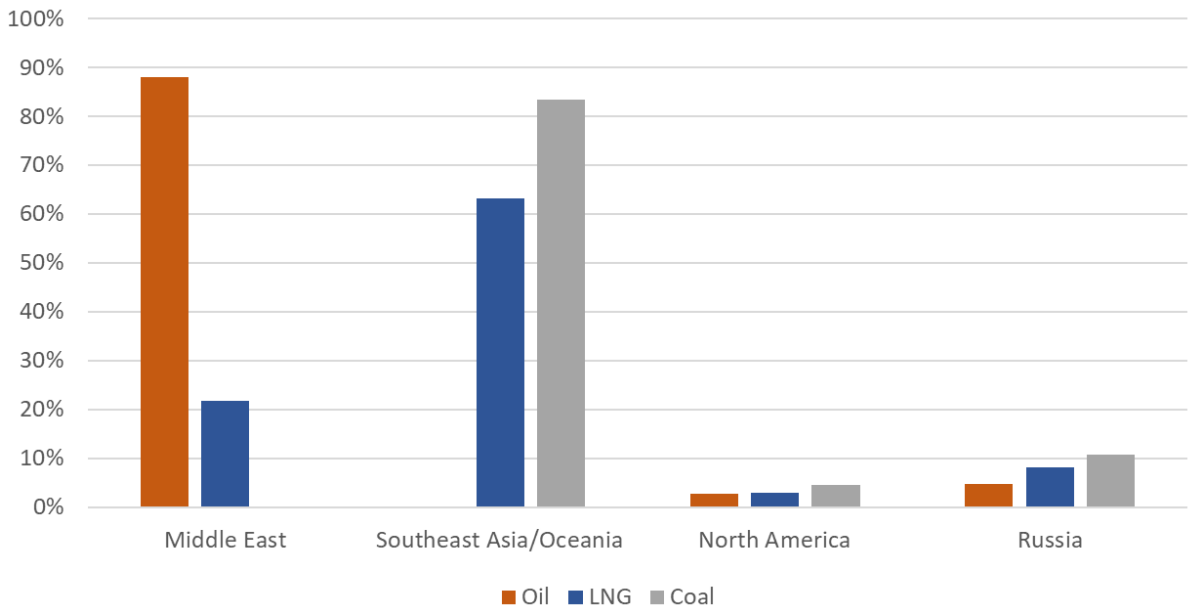

Figure 2. Japan's imports of hydrocarbons
Source: (METI 2019)

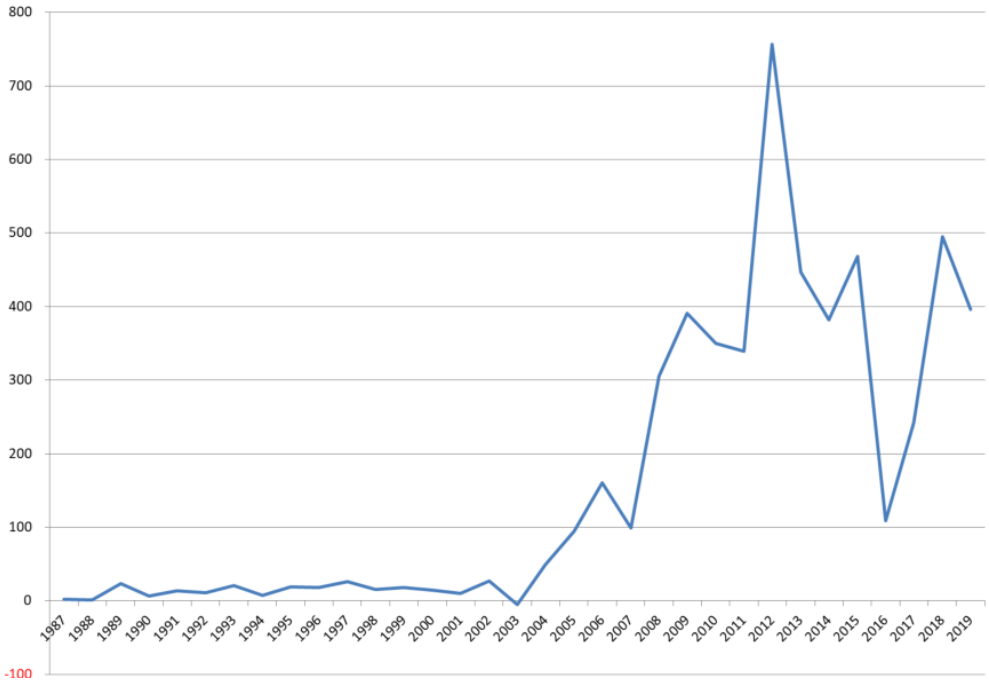

Figure 3. Japan's FDI outflows to Russia
Source: (JETRO 2020a)

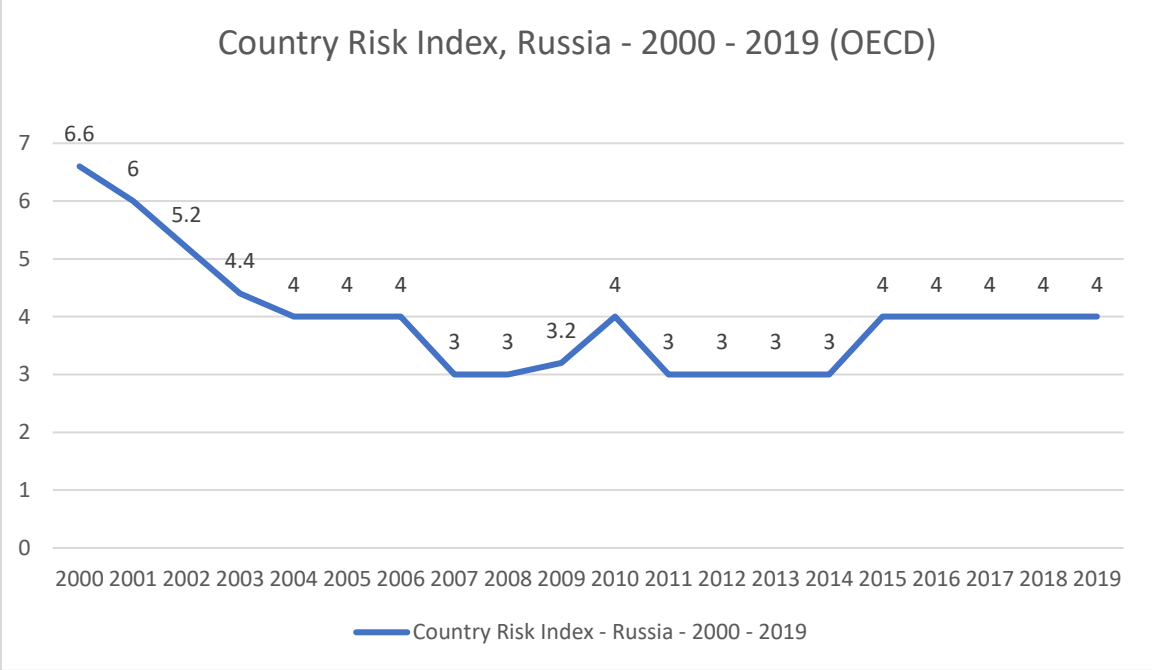

Figure 4. Country Risk Index for Russia (2000-2019)
Source: (OECD 2020c)

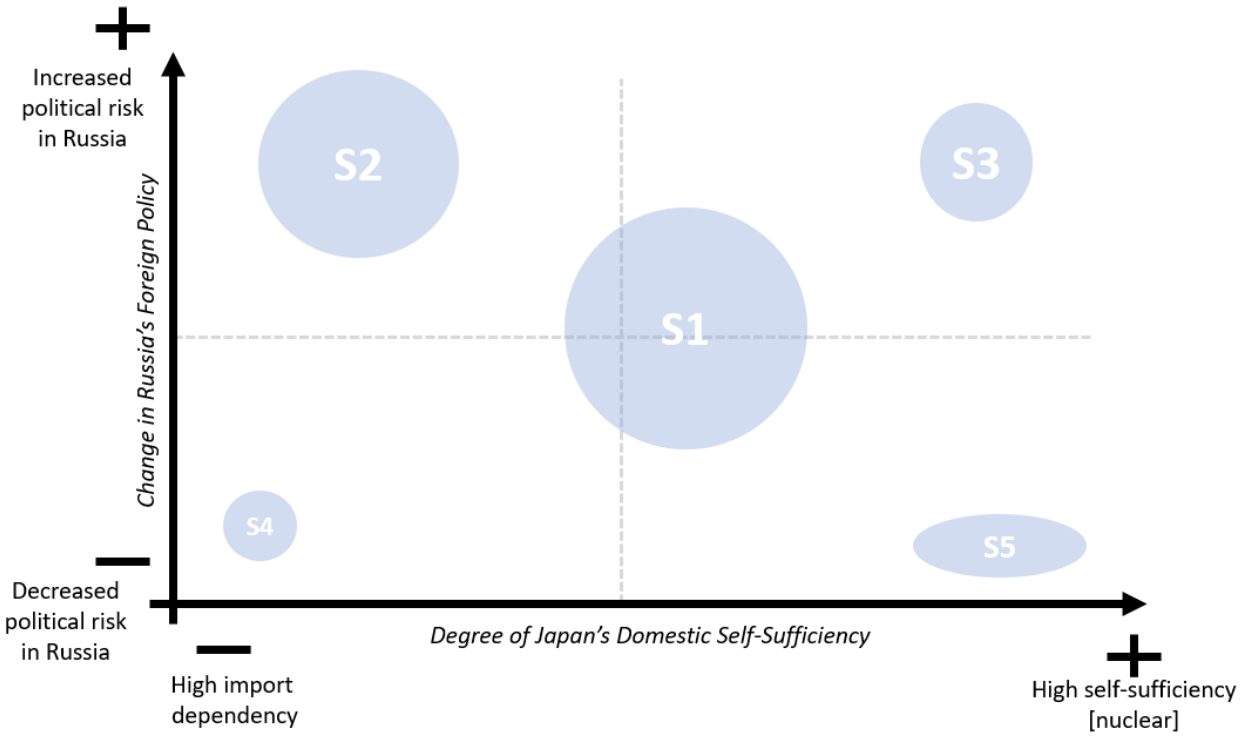

Figure 5. Japanese FDI scenarios in Russia depending on the configuration of major political drivers.

Year	Political Risk in Russia (scale of 1 to 7)	Japanese FDI in Russia (millions USD)
2000	6.6	15
2001	6	10
2002	5.2	27
2003	4.4	-5
2004	4	49
2005	4	95
2006	4	160
2007	3	99
2008	3	306
2009	3.2	391
2010	4	350
2011	3	339
2012	3	757
2013	3	447
2014	3	382
2015	4	468
2016	4	109
2017	4	242
2018	4	495
2019	4	396

Table 1. Values for Japanese FDI in Russia and Average Annual Country Risk in Russia, 2000-2019 values for Japanese FDI in Russia and Average Annual Country Risk in Russia, 2000-2019. Source: (OECD 2020b; JETRO 2020a).

Dependent variable	Independent variable	Pearson's r	Confidence Interval (95%)
FDI from Japan to Russia (log) 2010-2019	FDI RRI Russia Equity Restriction	-0.323	$-0.79 \leq \rho \leq -0.39$
	FDI RRI Russia Screening/Approval	0.226	$0.47 \leq \rho \leq 0.75$
	FDI RRI Russia Key Foreign Personnel	-0.05	$-0.66 \leq \rho \leq -0.60$
	FDI RRI Russia Other Restrictions	-0.2219	$-0.74 \leq \rho \leq -0.48$

Table 2. Pearson's r correlation coefficients for the FDI RRI subcategories with Japanese FDI in Russia.

Innovate or diversify?
Lessons for Japanese pharmaceutical wholesalers from European business models

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Innovate or diversify? Lessons for Japanese pharmaceutical wholesalers from European business models

Abstract

While pharmaceutical distribution is integral to the healthcare system, Japanese wholesalers face margin pressure due to governmental healthcare cost reduction measures. Despite favorable demographic trends, Japanese pharmaceutical wholesalers face similar or tougher conditions than those of their European peers. This study explores potential lessons from the evolution of European pharmaceutical wholesalers' business models, which can be applied to the Japanese industry given that they experience similar margin pressure threats despite differing business practices and regulations. Three success factors from the European case that may be relevant to the Japanese context are: 1) developing other core businesses to support sustainability, 2) integrating pharmacy businesses with the traditional wholesaler business, and 3) spinning off or separating core businesses.

Keywords: Japanese pharmaceutical industry; Pharmaceutical wholesaler; Business model; Diversification; Innovation

Introduction

Business-to-business distribution (wholesaling) is an essential component of economic activity. Historically, wholesaling was considered a matter involving activity coordination and resource combination (Gadde & Persson, 2004) and the importance of wholesalers was also emphasized (Gadde & Håkansson, 2001). Resenbloom and Andras (2008) also claimed that wholesalers are global marketers. However, due to technology changes and globalization, companies have sought to establish new arrangements with customers, suppliers, and other stakeholders (Omta, Trienekens, & Beers, 2008). The rapid development of manufacturing, logistics, and information technology has left wholesalers in a predicament with some research (Pitt, Berthon, & Berthon, 1999) claiming that new channels and intermediaries would take their place. Despite these claims, many wholesalers have continued to dominate economic activity by adapting to changes in the business environment. Analysis by Olsson, Gadde, and Hulthén (2013) showed that wholesalers evolved into multi-functional actors involved in various distribution arrangements with their business partners. Furthermore, Pardo and Michel (2015) demonstrated how a wholesaler can take on a new role in a distribution channel.

Dyads have often been utilized in the study of wholesale business models, for example, between a manufacturer and a distributor or between a manufacturer and an industrial customer (Anderson, Hakansson, & Johanson, 2006). Such studies have now evolved to include triads: the wholesaler, manufacturer, and customer (Pardo & Michel, 2015). Pardo and Michel (2015) also concluded that good knowledge of downstream markets can support new offerings and more important strategic changes. Michel et al. (2019) claimed that any change in a business network involves interaction between different strategies carried out by different business actors and that wholesalers played the troubleshooter and quality enhancer roles. They concluded that

institutional arrangements were the anticipated consequences of interactions between actors. However, pharmaceutical distribution is more complex, since prescription drugs can be utilized by a doctor or prescribed by a doctor to a patient, who is the end user.

Few research studies have focused on pharmaceutical distribution analysis. As such, this study attempts to analyze how European pharmaceutical wholesalers have managed to survive under severe conditions and whether any of their approaches could prove useful to Japanese wholesalers. The study by Pardo and Michel (2015) suggested that emphasizing the role of wholesalers is inevitable for ensuring collaboration with customers and appropriate work practices when interacting with wholesalers. No alternatives for current pharmaceutical wholesaling business practices have emerged thus far. The aim of this study is to examine the current status of both the European and the Japanese wholesale industries and to identify and tentatively recommend appropriate roles that pharmaceutical wholesalers could play for sustainable operation of the wholesale business.

Pharmaceutical distribution is regarded as part of the healthcare system (Jacobzone, 2000), and drug wholesalers serve an important function in conveying essential pharmaceutical products from the manufacturer to patients via medical institutions. Japanese pharmaceutical wholesalers have been facing margin pressure because of governmental measures to reduce healthcare costs due to the aging population. Indeed, despite favorable demographic trends in Japan, the environment for Japanese pharmaceutical wholesalers appears to be similar to or even tougher than that faced by their European peers. The Federation of Japanese Pharmaceutical Wholesalers Association (JPWA) estimates that the profitability of Japanese pharmaceutical wholesalers has been suffering mainly because of compressing gross profit margins (The Federation of Japan Pharmaceutical Wholesalers Association, n.d.). Gross and operating profit margins in fiscal year

1995 were 11.4% and 1.3%, respectively, after which they declined considerably, bottoming out in 2010 (at 6.54% and 0.13%, respectively) and then recovering somewhat by fiscal year 2016 (6.72% and 0.83%, respectively).

European wholesalers have faced a similar situation because of changes in regulations. In the 15 years since 2001, the index of wholesale margins in Europe has steadily decreased from 100 to 71 (Walter, Dragosits, & Said, 2012). There are also industry trends in Europe that might arrest the sustainability of the wholesaler business model, namely: (a) cost pressure from various legislative and regulatory measures, including the Good Distribution Practice Guidelines introduced in 2013; (b) cost containment by the government; and (c) deregulation, leading to an increase in parallel imports (Maskus & Chen, 2004). Due to these changes, industry consolidation is inevitable. Some wholesalers are even seeking to focus on the non-pharmaceutical wholesale business to sustain their operations. Many experts currently view attempts to increase wholesalers' productivity as unrealistic (Walter, Dragosits, & Said 2012). In a similar way, Japanese wholesalers are being pressed for cost reduction and the creation of profitable businesses.

Despite the importance of pharmaceutical distribution and this current challenging environment, few studies examine the evolution of the pharmaceutical wholesaler business model in both Europe and Japan. Based on a literature review and interviews with two locally-operating European wholesalers, this study explores whether there are lessons from the evolution of business models of European pharmaceutical wholesalers that can be applied to the Japanese pharmaceutical wholesale industry.

In analyzing the European regional wholesalers, we initially considered several different countries, but ultimately selected Galenica in Switzerland and Uniphar in Ireland as cases. These

countries were selected because their regulations are similar to those in Japan—specifically, they have no restrictions on pharmacy chain ownership. This makes it possible for us to explore whether strengthening vertical integration (including expansion into the pharmacy business) can serve as an alternative to the simple pharmaceutical drug delivery model.

This paper comprises three parts. It (a) compares the general distribution practices of Japan and Europe, (b) summarizes vertical and horizontal consolidation in Japan and Europe, and introduces the current business models, and (c) discusses key learning from the evolution of Europe's pharmaceutical wholesaler business model and their applicability to the Japanese context.

DIFFERENCES BETWEEN THE JAPANESE AND EUROPEAN DISTRIBUTION SYSTEMS

As there are currently no ethical means for pharmaceutical drug manufacturers to distribute their products to the institutions that sell them, wholesalers are integral to the dissemination of pharmaceutical products in Japan (Jakovljevic, Nakazono, & Ogura, 2014). The marketing channels for pharmaceuticals in Japan are relatively complex, including convoluted routes that include secondary and tertiary wholesalers (Flath & Nariu, 2008). Moreover, there are no direct distribution contracts between manufacturers and medical institutions in Japan. Among the pharmaceutical sales channels in Japan, pharmacies represent 53.7% of the market, hospitals account for 27.2%, and primary care doctors or prescribing doctors in hospitals with fewer than 19 beds (hereafter, simply "doctors") account for 18.4% (The Federation of Japan Pharmaceutical Wholesalers Association. n.d.).

The wholesaler distribution channels differ slightly in Europe. For example, in many countries, pharmaceutical manufacturers can contract with hospitals directly. According to Gorecki et al. (2012), in Ireland—one country where pharmaceutical products can be directly sold to hospitals—pharmacies, hospitals, and self-dispensing physicians account for the majority of the market (81%), followed by supermarkets (15%), and other retailers (4%). In Switzerland, roughly a quarter of pharmaceuticals distributed to self-dispensing physicians is provided directly by the manufacturers (Galenica Group Investor Presentation, 2018).

While the pharmaceutical distribution landscape in Europe is constantly changing, including the increasing trend of direct sales or the new distribution model in the UK, full-line pharmaceutical wholesalers continue to dominate the market. Indeed, they deliver nearly three-quarters of all pharmaceutical products in Europe (Walter, Dragosits, & Said 2012). By contrast, in Japan, nearly 95% of pharmaceutical products are distributed by full-line wholesalers (The Federation of Japan Pharmaceutical Wholesalers Association, n.d.).

This traditional pharmaceutical distribution business model is currently under tremendous pressure globally. Pharmaceutical wholesalers typically operate on a small margin, or a net percentage of the sales price of their products. Among European countries, this margin varies because of different health care policies as well as different services and performance levels of pharmaceutical wholesalers. Pharmaceutical prices also differ because of the variations in pharmaceutical price-regulation mechanisms. Furthermore, in most European countries, there is some form of regulation for mark-ups in the supply chain. Full-line wholesalers have no control over the margin in most European countries; the exceptions are Switzerland and the UK, which allow for private negotiations between wholesalers and manufacturers (Rietveld & Haaijer-Ruskamp, 2002). In Europe, the margin is based on a percentage of sales (similar to the

Japanese system). Basing profitability on the percentage of sales is sensitive to price regulation, as decreases in pharmaceutical prices through methods such as the aggressive promotion of generics by the government or introduction of pharmacy fees lead to lower sales. Discounts between manufacturers and wholesalers, or wholesalers and retailers, are permitted in some European countries; the UK, which has introduced the claw-back system, is a notable exception (Kanavos, 2003; Kanavos, Schurer, & Vogler, 2011).

While business practices and regulations differ between Japan and Europe, the latter experiences a similar threat of margin pressure. In both Ireland and Switzerland, the ex-factory and reimbursement prices are controlled by the authorities, so wholesalers must split the margin into the wholesaler's profit and the pharmacy's profit. Therefore, Swiss and Irish wholesalers must strike an appropriate balance between their own profits and the margins transferred to pharmacies. Conversely, as the Japanese authorities are not involved in setting the ex-factory price, Japanese wholesalers have a little room to negotiate ex-factory price and sales promotion agreement fees in terms of a combined margin. However, the bulk of the margin has been transferred to the pharmacies.

As the number and density of pharmacists and wholesalers vary substantially (Kanavos, Schrurer, & Vogler 2011), wholesaler margins in Europe range rather widely, with Portugal having the highest (7% of the prescribed or reimbursed price), followed by Ireland and Switzerland (6%), while France and Germany have the lowest wholesaler margins (3%). Regarding the pharmacy margins, the highest margin was found in the Netherlands (at 28%) and lowest in Germany (at 14%). The pharmacy margins in Switzerland and Ireland were 21% and 17%, respectively European Federation of Pharmaceutical Industries and Associations (2012). By contrast, the average Japanese pharmaceutical wholesaler margin was 0.88% (The Federation

of Japan Pharmaceutical Wholesalers Association, n.d.). There are no official data on the Japanese pharmacy margin, but the average operating profit margin for the three largest pharmacy chains in Japan was 3.5% in the fiscal year 2017.

VERTICAL AND HORIZONTAL CONSOLIDATION AND PROFIT STRUCTURES IN JAPAN AND EUROPE

Industry Consolidation in Japan

The Japanese pharmaceutical wholesaler industry has experienced continuous consolidation. Between 1994 and 2018, for example, the number of pharmaceutical wholesalers shrunk from 305 to 72. Similarly, the number of industry employees decreased from 76,000 in 1994 to 63,000 in 2000; by 2018, there were only 56,089 employees across 72 pharmaceutical wholesalers in Japan (The Federation of Japan Pharmaceutical Wholesalers Association, n.d.).

Currently, the largest pharmaceutical wholesaler in Japan is the Alfresa Group (hereafter, Alfresa). Alfresa was formed through a merger between the Osaka-based Azwell and Tokyo-based Fukujin in 2003, after which it swelled to its current position through a series of consolidations with smaller regional wholesalers. In 2010, the company began allying with food and general-purpose merchandise wholesalers, and in 2015, it acquired a pharmaceutical manufacturing subsidiary from Eisai (a large pharmaceutical manufacturer). In 2018, DaiichiSankyo, another large pharmaceutical manufacturer, also transferred its rights to manufacture and sell 41 drugs that had lost their exclusivity to Alfresa.

The second-largest pharmaceutical wholesaler, Medipal Holdings (Medipal), was established in 2000 through a merger among three pharmaceutical wholesalers. In 2005, the company

acquired Paltac, a household product wholesaler, to strengthen its product line-up. The company reached its position after acquiring several other regional wholesalers. Medipal's basic policy is to expand its earnings foundation and achieve sustainable growth by pursuing new business models.

Suzuken, another pharmaceutical wholesaler, was established in 1932. In 2006, it became the first pharmaceutical wholesaler in Japan to establish business offices in every prefecture. Suzuken is considered the most diversified pharmaceutical wholesaler in the country, with a stake along three segments of the healthcare value chain: manufacturing, repackaging, and warehousing; wholesale distribution; and pharmacies and nursing care.

Toho Holdings (Toho), the fourth-largest wholesaler, was established in 1948. This company formed a network of pharmaceutical wholesalers, the "Kyoso Mirai Group," to boost member companies' market competitiveness and corporate value through the implementation of cooperative purchasing and consolidation of the business infrastructure. Toho also operates as a manufacturer of generic drugs. The top four wholesalers dominate more than 80% of the Japanese pharmaceutical wholesaler industry.

Vital KSK, the fifth-largest wholesaler, is a jointly-owned holding company comprising two regional wholesalers in the Kinki and Tohoku areas. Hokuyaku Takeyama Holdings (Hokuyaku), the sixth-largest wholesaler, is a holding company that distributes pharmaceuticals and medical equipment mainly in Hokkaido. While the top four wholesalers cover the entire market with a combined market share of more than 80%, the other two wholesalers are regional players. Historically, the Japanese pharmaceutical wholesale industry has been somewhat fragmented.

Industry Consolidation in Europe

In Europe, most mergers have occurred at the retailer level, resulting in the establishment of

large pharmacy chains (Kanavos, Schrurer, & Vogler 2011). Consolidation among retail pharmacies has been rather slow due to national regulation of the ownership structure. However, current government cost-containment efforts, including the promotion of generics and pharmacy fee cuts, are forcing a steady decline in wholesale margins and forcing pharmaceutical full-line wholesalers to redesign their business models.

While there are many regional wholesalers in Europe, only a few cross-border mergers have been observed. It can be argued that many regional pharmaceutical wholesalers have struggled to achieve a sustainable business model on their own. For instance, the US-based pharmacy chain Walgreens purchased Alliance Boots in 2014. Furthermore, in 2015, the American wholesaler McKesson acquired 75% of Celesio, the second-largest pharmaceutical wholesaler based in Germany, after which it acquired the wholesaling division of UDG Healthcare, a major Irish pharmaceutical wholesaler.

In general, the pharmaceutical distribution business can be divided into pre-wholesale and wholesale. Pre-wholesale business centers on outsourcing the distribution of manufacturers. In Switzerland, Galenica dominates the market with more than 50% of the pre-wholesale market and 45% of the wholesale market. Galenica was established in 1927 by 16 Swiss pharmacists with the goal of building a joint purchasing center. Following several business acquisitions, Galenica has become the largest Swiss platform provider. In 1995, Galenica developed a strategy to diversify its business into healthcare and is now engaged in the entire value chain in Switzerland. In 2015, Galenica split into two business units: Vifor Pharma and Galenica Santé. Galenica Santé, the healthcare services arm of Galenica, owns the largest Swiss pharmacy chains under different brand names (Galenica Annual Report, 2016). The company is currently seeking to develop a more patient-centric business model by expanding its pharmacy services.

As for Ireland, despite the overall robust growth of the Irish pharmaceutical industry, the wholesale business remains fiercely competitive. The Irish government establishes mandatory wholesale rebates and discounts required by health insurance. Furthermore, manufacturers also offer a rebate to the Primary Care Trust Schemes, a government body in Ireland, for all drugs dispensed (Gorecki et al., 2012). Pharmacy chains initially began forming in the mid-1990s (Vogler, Danielle, & Habl, 2006). In 1994, the Uniphar Group (currently the largest wholesaler in Ireland and owned by a group of community pharmacists) was established through a merger between the United Pharmacists Co-op and Allied Pharmaceutical Distributors. This company has three operating segments: supply chain services, contract sales outsourcing (CSO), and retail pharmacies under two distinct brands (Life and Allcare). For pharmacies under the Life brand, ownership is equally split between Uniphar and an independent pharmacist-operator, while pharmacies under the Allcare brands are 100% controlled by Uniphar.

Comparing the Profit Structure between Japanese and European Wholesalers

Table 1 illustrates the sales, profits, and margins for six Japanese and three European wholesalers. Financial data for UDG Health is included in Table 1 to provide another example of how Irish wholesalers have redesigned their business models.

[Insert Table 1 here]

Japanese wholesalers evidently had less profitable pharmaceutical distribution businesses, with an average operating profit of only 1.09%. However, this was only slightly lower than that of their European peers. As pharmaceutical drug margin pressure could lower wholesalers' profit margins, these companies' reliance on pharmaceutical wholesaling might be an attempt to reinforce the financial reliance of their current business model. Three out of the six Japanese wholesalers evidently attempted to strengthen their non-wholesaling businesses, including

pharmacy operations and drug manufacturing. Galenica and Uniphar showed a similar trend. Medipal and Hokuyaku had a reasonable percentage of consolidated operating profits from the other wholesale business; however, the results of these businesses were generally reflective of their acquisitions of other wholesalers.

DISCUSSION

The numerous challenges imposed by regulators and manufacturers have evidently prompted European wholesalers to not only strive to sustain their current business model but also to adopt an even greater role in their respective pharmaceutical supply chains to provide citizens with the necessary drugs. Olsson, Gadde, and Hulthén (2013) suggested that wholesalers have evolved to take on multifaceted roles including assortment provider, logistics service provider, end-customer interface, and market organizer. European wholesalers have diversified and/or acquired businesses to strengthen the roles they want to play. For example, UDG healthcare gave up on assortment provision and logistics service provision by selling its pharmaceutical wholesaling division, the once core business. Japanese wholesalers seem to continue low margin pharmaceutical wholesale businesses as their business missions. The European wholesalers' case provides three key success factors that may be relevant to Japan's increasingly competitive wholesale environment.

First, wholesalers could seek other core businesses to support the sustainability of their companies. Galenica, for example, has a core pharmaceutical manufacturing business. Galenica's business diversification was possible because both its primary business units had meaningful profit levels: prior to the split, Vifor Pharma accounted for 74% of Galenica's total operating

profit. Galenica has also leveraged its retail platform to strengthen the supply chain business. For example, its retail product portfolio shows that 52% of the drugs available are prescription drugs, of which 38% are original products. Furthermore, Galenica has secured the second-largest market share in the Swiss over-the-counter market through a combination of exclusive partnerships with manufacturers and its own brands. Galenica has also sought vertical integration towards a more patient-centric model through the provision of different services to patients, such as mail-order services and pharmacist visits (Galenica Group Investor Presentation, 2018). Similarly, UDG Healthcare's business diversification was possible because of the profit contribution of the service division. Under the current environment in Japan, strengthening the relationship between wholesalers and pharmacies is crucial. Suzuken, Toho, and Hokuyaku Takeyama all operate pharmacy businesses; however, none of these operations have a significant profit contribution or market presence.

[Insert Table 2 here]

Second, wholesalers should integrate their pharmacy businesses into the traditional wholesaler business, as seen in both Uniphar and Galenica. While vertical integration affords many advantages, such as seamless product flow, greater distribution margin, and lack of time-consuming negotiations, it carries the major risk of forcing competition with existing clients. Galenica and Uniphar have approached the integration of pharmacy businesses somewhat differently. For instance, Galenica has strengthened its pharmacy business through expansion of patient services (as noted above).

Uniphar has also carefully strengthened its pharmacy business with at least three distinct strategies. As there are potential challenges with managing the acquired pharmacies, Uniphar offers the independent pharmacies it acquires the choice of two different pharmacy brands. If the

acquiree would like to dispose of the business entirely to Uniphar, the Allcare brand is applied, while if the acquiree would like to maintain a business interest, the Life brand is applied.

Uniphar also utilizes a zero-discount line policy, which enables it to negotiate with independent pharmacies regarding various business support services, such as business support and regulation updates. These extra services are also conducted by Japanese wholesalers. Uniphar provides numerous deliveries per day, including immediate delivery for a fee, but these practices are common in Japan, and wholesalers do not charge for these services. It may be argued that the Japanese market is more fragmented and there is no product differentiation among pharmaceutical products delivered by the wholesalers. Therefore, wholesalers tend to compete with regard to extra value-added services, such as the provision of multiple deliveries per day. This strategy is aligned with the concept introduced by Olsson, Gadde, and Hulthén (2013), which identified the layers that were primarily concerned with investments in order to enhance value co-creation.

Uniphar is also attempting to breach the upper side of the vertical supply chain, such as by acting as a sales promotion assistant for manufacturers to pharmacies or prescribing doctors. Japanese wholesalers have provided sales promotion support for manufacturers to medical institutions, but the sales promotion fee is not distinguishable from the manufacturing margin in Japan. Uniphar engages in similar activities, with a notable difference that medical sales representatives (MS) from wholesalers mainly visit general practitioners (GP) in Japan, while the Uniphar CSO team visits GPs and nursing homes. Moreover, Uniphar charges a fee and separates sales promotion from the distribution margin. This new role, which is aligned with the concept of Uniphar, has also been strengthening its manufacturing business by supporting generics and over-the-counter drugs to fulfill the needs of independent pharmacies. Thus, while Uniphar is

continuing to operate its traditional pharmaceutical supply chain business, it is also adopting a more strategic focus on community pharmacy services. This is also another strategic role mentioned by Olsson, Gadde, and Hulthén (2013).

Vertical integration might be thought of as a potential alternative to the simple pharmaceutical delivery model, but it carries further risks. For example, wholesalers' acquisition of pharmacies in Japan might lead to dispensing fee deductions and deregulation of face-to-face prescriptions (leading to internet pharmacies) unless, as in the cases of Uniphar and Galenica, the wholesaler dominates the pharmacy market. Thus, this alternative must be implemented with caution.

Finally, wholesalers should spin off or separate their core businesses. However, the hurdles to clear in this effort are much higher. European wholesalers have been shifting their business models swiftly either through acquisition or diversification; however, these decisions were typically made after establishing the core business besides the traditional wholesaling business. For instance, Galenica and UDG Healthcare both expanded their non-wholesale businesses into significant earnings drivers for their companies. By contrast, most Japanese wholesalers have been striving to overcome challenges presented by manufacturers, regulatory bodies, and pharmacies, and in most cases have not yet established another core business. It is also a little more difficult to identify sustainable core businesses (besides the traditional wholesale business) among Japanese wholesalers; thus, it may be difficult to implement such a business model in the near future. A possible lesson that Japan could learn from the European wholesalers in this regard is strengthening the wholesaler–pharmacy relationships either by obtaining a significant market presence or by providing adequate business support with appropriate fees.

Although there are many positive management lessons that Japanese wholesalers can take away from European wholesalers, there are some cautionary lessons as well. Despite successes

in evolving their business models, legislative pressure has further lowered the wholesaler margin, and the opening of internet pharmacies might reduce the margin for the pharmacy business as well. As such, Uniphar's wholesaler and pharmacy businesses are expected to face numerous challenges in the future. Uniphar is currently concentrating the bulk of its resources in its manufacturing business. For example, it made seven major business acquisitions recently, including the strategic acquisition of Point of Care, a provider of nursing services, and Star, an outsourcing and resourcing company. It is also seeking geographic expansion of its distribution business. Galenica, on the other hand, has strengthened its mail order business through the introduction of "Click and Collect," which enables customers to order Galenica's products online (including prescription drugs) and collect them from the pharmacy of their choice.

This leads to the question: What would facilitate business model reform among pharmaceutical wholesalers in Japan? The wholesaler, as a middleman, is an important part of drug delivery in Japan. However, the conventional Japanese distribution style, wherein designated wholesalers carry specialized products, is becoming obsolete. Japanese pharmaceutical wholesalers are no exception (Maruyama, 2004). As the number of pharmaceutical wholesalers in Japan decreases, it is becoming increasingly clear that the market will become concentrated among the largest four wholesalers. Given the complexity of the pharmaceutical industry in terms of product range, pricing and reimbursement systems, pharmacy structures, and geographic conditions, anticipating the future of pharmaceutical wholesalers in Japan is challenging. Nevertheless, we can point to two challenges that Japanese wholesalers must confront in the future: (a) an increase in margin pressure due to the increasing volume of generic drug distribution and (b) increase in demand for specialty pharmaceuticals.

The increase in generics is hurting pharmaceutical distribution in Japan. As wholesalers

operate under the percentage of sales model, the erosion of the generic price decreases the margin as the volume of generics increases. Anticipated margin pressure is in fact one of the most urgent issues in Japan's pharmaceutical wholesale industry. Delivering lower-priced generics pushes the relative cost structure to focus on efficiencies in delivery costs, including inventory management, as the wholesaler's profit is diluted by the reduced revenue potential. This would lead to cuts in absolute profit (calculated by the percentage of sales) as the actual handing and delivery costs of generics are the same as for higher-priced new drugs. To avoid margin erosion, Uniphar introduced a packing charge model for generics. Under this model, Uniphar imposes a charge for each pack of generic drugs delivered to medical institutions, while new drugs still operated under the traditional model.

Note that one issue found in Ireland that is unlikely to be of concern in Japan is that of drug shortages due to parallel import. As Ireland is a relatively small country in terms of pharmaceutical consumption (in monetary units), manufacturers can strategically allocate their products between Ireland and the UK, which is a much larger market. However, this could result in drug shortages due to the strategic decision of manufacturers.

Galenica has also introduced a fee for service model to optimize the transport margin. Galenica charges fees based on the frequency of daily delivery. An alternative to this model would be to establish the joint distribution of generics. In both Ireland and Switzerland, the market size is modest enough such that there is no need for joint distribution; the packing charge or fee for service models appears to be an appropriate solution.

Second, regarding specialty medicine distribution, McCain (2014) urged that specialty pharmaceutical drug distribution is highly complex due to the need for stringent distribution control (e.g., temperature control); failing to construct a good distribution channel can lead to

poor prescriber uptake. However, there may be plenty of room in the distribution models for hubs that provide basic services (McCain, 2014). Japanese wholesalers have approached this opportunity by establishing focused distribution subsidiaries or investing in drug development. For that reason, Medipal has invested in specialty drug development through equity investments. For the other wholesalers to benefit from the existing business model, strengthening specialty pharmaceutical distribution, an aspect of pre-wholesale logistics (i.e., manufacturers) will be another choice. Indeed, in 2018, several business collaborations in this regard were observed. Specifically, for specialty pharmaceutical distribution, Hokuyaku, Vital KSK, and Forest Holdings (a private regional pharmaceutical wholesaler) established a new company, while Toho and Suzuken collaborated in establishing specialty pharmaceutical distribution channels.

CONCLUSION

While Japan and European countries have rather different business customs, pharmaceutical wholesalers in both regions face similar business opportunities and risks. Certain European wholesalers may offer a clear guide for future Japanese wholesaler business models, such as by suggesting vertical integration of pharmacy chains, a zero-discount policy, and packing charges. Certainly, there is room for European wholesalers to learn from Japanese wholesalers as well, such as learning from the latter’s implementation of the sales promotion function. Overall, pharmaceutical wholesalers across these regions face similar challenges in battling for a margin with pharmacies.

It is unclear if business collaborations are currently igniting industry consolidation in Japan; however, the history of the European pharmaceutical wholesaler industry suggests that margin

pressure from manufacturers remains strong, and that regulatory pressure drives down wholesalers' margins (either directly or indirectly). Consequently, industry consolidation may be unavoidable. Japanese wholesaler business reform is likely to be inevitable and may initially focus on strengthening the non-wholesaling business. Subsequently, wholesalers can spin off or sell off different businesses (either wholesale or non-wholesale), depending on the success of either business.

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Tables

TABLE 1 BUSINESS SEGMENT COMPARISON AMONG JAPANESE AND EUROPEAN WHOLESALERS

Company		**Alfresa**	**Medipal**	**Suzuken**	**Toho**	**Vital KSK**	**Hokuyaku Takeyama**	**Japanese Total**	**Galenica (2015)**	**Galenica (2017)**	**UDG Health (2014)**	**UDG Health (2017)**	**Uniphar(2015)**
Business segment	**unit**	**million yen**	**million yen**	**million yen**	**million yen**	**million yen**	**million yen**	**million yen**	**000 CHF**	**000 CHF**	**000 Euro**	**000 USD**	**000 Euro**
Pharmaceutical wholesale	Sales	2,277,544	2,117,054	1,979,845	1,114,903	536,839	159,871	8,186,056	1,554,710	1,822,030	99,908		1,083,012
	Operating profit	35,282	19,435	14,392	17,155	2,073	1,062	89,399	37,094	50,550	3,040		17,511
Other wholesale	Sales	259,4	966,1				50,149	1,275,					

		01	71					721					
	Operating profit	2,626	22,977				728	26,331					
Pharmacies etc	Sales			99,527	97,651		14,317	211,495	1,373,735	1,445,612			17,375
	Operating profit			3,195	3,564		614	7,373	84,514	99,704			3,375
Manufacturing	Sales	32,036		16,381				48,417	1,012,876		244,076	302,076	
	Operating profit	2,832		986				3,818	333,000		24,301	39,008	
Others	Sales	33,934	63,088	28,243	1,786	28,750	3,448	159,249	3,837	3,023	575,290	917,679	18,251
	Operating profit	881	1,513	862	153	238	1,225	4,872	3,837	11	41,532	64,178	215
Corporates		134	334		-1,857	72		-1,317	-10,341	-8,408			

Total Sales		**2,602,917**	**3,146,314**	**2,123,997**	**1,214,342**	**565,589**	**227,788**	**9,880,947**	**3,945,158**	**3,270,665**	**919,274**	**1,219,755**	**1,118,638**
Total Operating profit		**41,756**	**43,926**	**19,435**	**19,016**	**2,384**	**3,632**	**130,149**	**448,104**	**141,857**	**68,873**	**103,186**	**21,101**
Breakdown of Revenue													
Pharmaceutical wholesale		87.50%	67.29%	93.21%	91.81%	94.92%	70.18%	82.85%	39.41%	55.71%	10.87%		96.82%
Other wholesale		9.97%	30.71%				22.02%	12.91%					
Pharmacies etc				4.69%	8.04%		6.29%	2.14%	34.82%	44.20%			1.55%
Manufacturing		1.23%		0.77%				0.49%	25.67%	0.00%	26.55%	24.77%	
Others		1.30%	2.01%	1.33%	0.15%	5.08%	1.51%	1.61%	0.10%	0.09%	62.58%	75.23%	1.63%
Breakdown of Operating profit/EBITDA													

Pharmaceutical wholesale	84.50 %	44.24 %	74.05 %	90.21 %	86.9 5%	29.24 %	68.69 %	8.28 %	35.63 %	4.41 %		82.99%
Other wholesale	6.29 %	52.31 %				20.04 %	20.23 %	0.00 %	0.00 %			
Pharmacies etc			16.44 %	18.74 %		16.91 %	5.67 %	18.86 %	70.28 %			15.99%
Manufacturing	6.78 %		5.07 %					74.31 %		35.2 8%	37.80 %	
Others	2.11%	3.44 %	4.44 %	0.80 %	9.98 %	33.73 %	3.74 %	0.86 %	0.01 %	60.3 0%	62.20 %	1.02%
Operating profit/EBITDA Margin												
Pharmaceutical wholesale	1.55 %	0.92 %	0.73 %	1.54 %	0.39 %	0.66%	1.09 %	2.39 %	2.77 %	3.04 %		1.62%
Other wholesale	1.01 %	2.38 %				1.45%	2.06 %					
Pharmacies etc			3.21 %	3.65 %		4.29%	3.49 %	6.15 %	6.90 %			19.42%

Manufacturing	8.84 %		6.02 %				7.89 %			9.96 %	12.91 %	
Others	2.60 %	2.40 %	3.05 %	8.57 %	0.83 %	35.53 %	3.06 %	100.0 0%	0.36 %	7.22 %	6.99 %	1.18%

TABLE 2 COMPARISON OF BUSINESS SEGMENT AMONG JAPANESE AND TWO EUROPEAN WHOLESALERS

	Manufacturing	Pre-wholesaling	Wholesaling	Sales promotion	Pharmacies	Other services
Galenica	Spun off	Continue	Continue	N/A	Strengthening	Homecare service
Uniphar	Strengthening	Continue	Continue	contract sales organization	Continue	Contract sales organization
Alfrea	Strengthening	N/A	Continue	Continue	N/A	N/A
Medipal	Investing in orphan drugs	N/A	Continue	Continue	N/A	Animal pharmaceutical and Household distribution
Suzuken	Maintain	N/A	Continue	Continue	Continue	Specialty pharmaceutical distribution
Toho	N/A	N/A	Continue	Continue	Continue	Homecare service

Hokuyaku	N/A	N/A	Continue	Continue	N/A	Homecare service and medical equipment distribution
Vital KSK	N/A	N/A	Continue	Continue	N/A	Homecare service

Sequential Investments and the Survival of Japanese Subsidiaries in the context of Institutional Theory

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SURVIVAL OF JAPANESE SUBSIDIARIES: IMPACTS OF SEQUENTIAL INVESTMENT, INSTITUTIONAL DISTANCES, AND LOCATION FACTORS

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SURVIVAL OF JAPANESE SUBSIDIARIES: IMPACTS OF SEQUENTIAL INVESTMENT, INSTITUTIONAL DISTANCES, AND LOCATION FACTORS

Abstract

Most empirical studies still consider foreign direct investment (FDI) as a single and independent decision. However, FDI involves a sequential and interdependent process of investments, and, consequently, it impacts a subsidiary's performance. Surprisingly, little is known about the relationship between sequential foreign direct investment (SFDI) and investment failure. Based on the institutional theory and using a Cox Regression and Kaplan-Meier procedure with a comprehensive sample of 1,325 Japanese subsidiaries operating in 77 host-countries with long monitoring time, this study evaluates how SFDI, institutional distances, and location factors affect a Japanese subsidiary's survival. The findings indicate that location factors play a vital role in a subsidiary's success/failure. For institutional aspects, the normative and regulatory distances have no impact on survival, while the cultural-cognitive distance increases its survival probability. Furthermore, the results show that SFDI at host-country, regional, and global levels is strongly connected over time and reduces the likelihood of survival. Our contributions relate to the broad study of success/failure and its relationship to SFDI while showing that monitoring time is a relevant factor to consider when applying the institutional theory.

Keywords: Sequential investment; Success; Failure; Survival; Institutional distance; Location factors; Japanese subsidiaries.

INTRODUCTION

For five decades, foreign direct investment (FDI) by multinational enterprises (MNEs) has received interest in the International Business (IB) field (Paul & Feliciano-Cestero, 2020). First, FDI is one of the leading global capital flows, totaling more than USD 1,3 trillion in 2019 (UNCTAD, 2019b). Second, it provides economic growth in the nations by increasing wellbeing and efficiency in the host countries (Cavusgil, Knight, & Riesenberger, 2017).

Despite the vast range of knowledge on FDI research and even though Kogut (1983) in the 1980s states that scholars should consider FDI as a sequential process, most recent studies still consider FDI a single and independent decision, with no impact on subsequent choices (Battistuzzo & Ogasavara, 2019). Most of the field studies have only focused on explanatory aspects of SFDI in a dispersed way. For instance, a considerable amount of the literature has been investigated the association of SFDI with factors such as learning (Chang, 1995; Chang & Rosenzweig, 2001; Delios & Henisz, 2003), subsidiary location (He, Zou, & Zhu, 2011; Song, 2002), and path dependency (Arregle, Beamish, & Hebert, 2009; Chan, Makino, & Isobe, 2006).

However, FDI is not a continuous and linear success trajectory (Gersch & Franz, 2019). Still, it is "typically a disjointed, fragmented process with periods of expansion and success, interspersed with disruption and discontinuity" (Burt et al., 2005, p.196). Thus, a primary concern in the literature is acknowledging and analyzing good performance (i.e., success) and unsuccessful attempts (i.e., failures). Surprisingly, very little attention has been paid to the association between the investment's failure and SFDI. We argue that SFDI and survival should be analyzed with the lens of institutional theory. Gaur and Lu (2007) state the importance of contingency factors for firm survival. A way to explore it is to consider the institutional theory perspective, especially contemplating a comprehensive geographic coverage to test for varying impact on institutional distance measures.

Our research intends to evaluate how SFDI affects the success and failure of the subsidiaries (survival), considering the institutional environment's elements (regulatory, normative, and cultural-cognitive distance) and location factors. To meet our goals, we test our hypotheses in a sample of 1,325

subsidiaries of 13 Japanese MNEs operating in 77 countries in the electronics sector, applying the Cox Regression model and Kaplan-Meier procedure.

Thus, we aim at expanding and contributing our knowledge in the IB literature in four main points. First, this paper includes failure as a measure for the subsidiary performance in SFDI studies. The literature shows that internationalization learning occurs with good performance and unsuccessful past attempts (Aklamanu, 2015; Bianchi & Ostale, 2006; Burt et al., 2005). Previous studies have focused more on the subsidiary's success or better performance (Kostova, 1996; Geringer, Beamish, & DaCosta, 1989; Yim & Jung, 2016). Second, this paper intends to contribute to an increased understanding of the institutional theory and the use of institutional distance measures when considering the relationship between SFDI and the success/failure of Japanese subsidiaries. We considered three pillars of institutional distances (i.e., regulatory, normative, and cognitive/culture) and the location specificity carried out in the SFDI process, such as the country's development stage and region. Third, by increasing the sample of Jiang et al. (2014) with the inclusion of a significant amount of host-countries, which provides an acceptable variance of different environments and, consequently, a better understanding of different institutional contexts of SFDI destinations. Fourth, verifying whether SFDI affects subsidiary survival when considering different SFDI at the country, regional, and global levels. Previous studies have measured SFDI mainly at the country's level. Additionally, this study's findings could help MNEs executives make more assertive and successful strategic decisions in the internationalization process.

The paper is structured as follows. After the introduction, we review the literature in conjunction with our hypotheses and proposing a conceptual framework. Next, we explain the methodological procedures, following the empirical analysis and discussion of our findings. Finally, we conclude with the main caveats and possible future research avenues.

LITERATURE REVIEW AND HYPOTHESES

SFDI, institutional distance, and subsidiary survival

As stated earlier, FDI should be understood as sequential and interdependent flows resulting from an

MNE's advantages (Kogut, 1983). Since then, some scholars have considered the internationalization of MNE as an SFDI process. Nevertheless, most of these studies analyzed SFDI based on a learning perspective (Chang, 1995; Chang & Rosenzweig, 2001; Delios & Henisz, 2003; Jiang, Holburn & Beamish, 2018), subsidiary location (He et al., 2011; Song, 2002), and path dependency (Arregle et al., 2009; Chan et al., 2006).

Institutional theory has been used increasingly in the IB literature to explain the MNEs' behavior and strategies (Kostova et al., 2020; Tihanyi, Devinney & Pedersen, 2012) and foreign subsidiary performance in host countries (Shirodkar & Konara, 2017). Surprisingly, few studies have considered the institutional lens to analyze the SFDI process. The exceptions are the studies of Francis et al. (2007) and Guler (2007) that both examine the institutional perspective based on isomorphic pressures (i.e., coercive, mimetic, and normative). The first develops a theoretical paper with a set of propositions that have not been empirically tested, while the latter explores a qualitative analysis of institutional influences. However, none of them associates SFDI and institutional perspective with the subsidiary performance, particularly with success/failure (i.e., survival) of operating abroad. When analyzing the institutional aspects and subsidiary performance, Kostova et al. (2020) highlighted survival as an essential measure for performance. They found that "survival of a foreign market entry experienced the most detrimental effect of institutional distance" (p.478).

Based on Web of Science and Scopus databases from 1980 to 2016, a systematic review of the literature (Battistuzzo & Ogasavara, 2019) identified two of thirty-three studies that assess the relationship between success/failure and SFDI. The failure is a consequence of incorrect learning in a different culture (Zeng et al., 2013) or due to a high expansion speed (Jiang et al., 2014). Only the study of Zeng et al. (2013) is based on an institutional lens but focused on cultural aspects. It means that the use of the concept based on the institutional differences is made generically and not based on elements that compose it (i.e., regulatory, normative, and cultural-cognitive elements) according to the institutional theory perspectives of North (1991) and Scott (1995). In this way, a systematic understanding of how institutional differences contribute to SFDI and success/failure is still lacking.

The institutional theory research focuses on social structure aspects, arguing that human beings form and change institutions to create order and reduce uncertainty. According to North (1991, p. 97), "institutions provide the incentive structure of an economy as that structure evolves, it shapes the direction of economic change towards growth, stagnation, or decline." This theory considers the process that makes an "authoritarian" guideline for social behavior: the schemes, rules, and norms that shape social behavior. Institutions are the rules of the game in society; they are the constraints that shape the way humans interact. These institutions promote social behavior incentives, and their changes define how social structures (i.e., political, social, or economic) evolve. The institutional framework also influences organizations responsible for establishing the norms, schemes, and rules that makeup institutionalization (North, 1990).

Within the institutional theory, Scott (1995) proposes three fundamental elements that constitute the institutional environment: (i) regulatory, (ii) normative, and (iii) cultural-cognitive. These elements can be formally established (regulatory aspects, for instance) or have informal constraints as conventions or codes of behavior (cultural-cognitive). These institutional elements interact with each other, shaping the organization structure and how they interact with society.

The regulatory aspect relates to more explicit rules defined by government agencies or even regulatory bodies (e.g., access to World Bank financing). Compliance with the regulatory element refers to the fear of penalties or compensation given to the organization. The regulative institutional element has formal rules, which can easily be identified compared to other elements. Furthermore, it has weaker effects on the organization, as they can play the "rules of the game" without internalizing them (Scott, Levitt & Orr, 2011). Francis et al. (2009) propose that organizations consider regulatory forces as the primary point to evaluate before entering a particular country. However, after the initial entry, the main influence would be related to its normative element. In this way, we argue that when an MNE is proceeding with SFDI, it quickly internalizes the regulatory element and does not affect subsequent investment performance. Thus, we propose:

H1a: *When considering the sequential foreign direct investment, the regulatory distance does not impact the subsidiary's survival probability.*

The normative element characterizes by an expectation of actors' social behavior. It means that normative aspects generate internalized concepts of the organization, where groups and sectors of interest reinforce them to provide an expected guideline behavior. For instance, organizations converge on similar models of operation and organizational structures. The normative element pressures could also support aspects of MNE's *"liability of foreignness"* (Eden & Miller, 2004; Johanson & Vahlne, 2009; Zaheer, 1995). Compliance with the normative element is due to a sense of internal organizational obligation and is a "good practice" for achieving legitimacy. It also forces the company to change its way of acting in search of legitimacy based on these external pressures. The presence of "strong" standards at the industry level mitigates differences between countries.

As stated earlier, Francis et al. (2009) propose that the probability of investing in a particular country increases if the regulatory pressures at the country, industry, and firm levels are more remarkable than other factors. However, after the initial FDI, it expects that other coercive forces will impact organizations. The subsequent investments are decided primarily by the existence of control mechanisms, which suggests that the normative forces have a more significant impact on making SFDI. Bianchi and Ostale (2006) analyzed Home Depot's internationalization, which had successfully expanded in different markets. However, Home Depot withdrawal its investment in Chile. They found that the cause of the unsuccessful enter into Chile is due to differences in institutional norms. The parent firm's failure to enforce its normative elements in a market with different practices. It suggests that for SFDI, every country requires a set of relevant institutional norms that must be perceived as legitimate by social actors (Bianchi & Arnold, 2004). Thus, we propose the following hypothesis:

H1b: *When considering the sequential foreign direct investment, the normative distance reduces the subsidiary's survival probability.*

The cultural-cognitive element refers to the shared nature of beliefs and values (Scott, 1995).

Cognition can be understood as the mental process of acquiring knowledge and understanding through experience and senses. Since the cultural-cognitive elements focus on providing meaning to the social order, they provide the basis for establishing regulatory and normative elements. However, it is the "slowest" element in terms of change. The cultural-cognitive element offers meaning to the social order and brings legitimacy to the organization (Scott et al., 2011).

In the analysis of SFDI successes and failures, Zeng et al. (2013) assess a positive (negative) relationship between subsidiary mortality (survival) and a low level of experience in a different culture. For Bianchi and Ostale (2006), prior studies on FDI failures focus on the organization's internal aspects. Failure results from management's lack of vision and the ability to respond to external factors such as cultural aspects. In this sense, we propose:

> ***H1c**: When considering the subsequent foreign direct investment, the cultural-cognitive distance reduces the subsidiary's survival probability.*

SFDI levels and subsidiary survival

In general, the analyses carried out by previous studies show that SFDI has an impact on factors related to internationalization. In summary, the SFDI realization generates experiential knowledge both at the local and international levels, leading to a better subsidiary's performance (Ogasavara, 2010; Ogasavara & Hoshino, 2009). Delios and Henisz (2003) found that MNE's and their subsidiaries' experience from SFDI makes them less subject to policy uncertainties at the host country level. While Arregle et al. (2009) examine experience at the regional level, stating that previous entries and exits in a given region significantly impact subsequent location decisions. Based on earlier findings, we argue that considering different levels of SFDI (i.e., country, regional, and global) is expected to produce a greater probability for the subsidiary's survival. Thus:

> ***H2**: The sequential foreign direct investment at the country (H2a), regional (H2b), and global (H2c) levels increase the subsidiary's survival probability.*

Location factors and subsidiary survival

According to prior studies, location factors influence the SFDI decision. Economic models highlight the importance of aspects related to the host country to choose the initial investments, such as the "Location" advantage on the eclectic paradigm (Dunning, 1980). The location, defined as the extent to which MNE locates their assets outside their national limits, is due to the demand for resources, markets, efficiency, and rationalization of activities or strategic advantages (Dunning & Lundan, 2008). In this way, MNE looks to make their investments in search of locations with lower costs, to explore market deficiencies, among other aspects.

On the one hand, one measure of location factor contemplates the level of gross national income (United Nations DESA, 2014) since it indicates the country's development and its attractiveness due to solid institutions. Rittippant and Rasheed (2016) found that factors related to the host country's development stage, such as the rate of economic growth and competitiveness, significantly impact the decision to increase, postpone or exit its initial investment. In this way, we argued the need to evaluate the effect of SFDI investments' success/failure considering the host country's development stage.

On the other hand, Chan et al. (2006) claim that decisions to enter a foreign market are not a series of decisions based solely on the host countries' economic factors. Arregle et al. (2009) state the importance of seeing the location at the regional level. The decisions to locate a subsidiary in a specific region relate to obtain aggregating advantages to the point of depletion of resources. We argued that both location factors related to SFDI decisions at the host country and regional levels could influence the subsidiary's survival, hence:

> ***H3:*** *When considering the sequential foreign direct investment, the location factors based on the host country's development stage (H3a) and region (H3b) increase the subsidiary's survival probability.*

Figure 1 summarizes the conceptual framework with the proposed hypotheses.

FIGURE 1 ABOUT HERE

METHODOLOGY

This study adopts two statistical methods for empirical analyses. The first is the Cox proportional regression-hazards model since it evaluates the effect of different factors on the survival event. The aim is to assess how specific factors impact an event's rate to happen within a particular time by estimating the hazard function (hazard rate). The second is the Kaplan-Meier procedure, a non-parametric statistic used to estimate lifetime data survival function. We based both statistical methods on the concepts presented by Fávero and Belfiore (2017) and IBM SPSS application study guidelines (IBM Knowledge Center, 2019a, 2019b).

We evaluated our hypotheses using a sample of foreign subsidiaries of Japanese MNEs' of the electronic sector. These Japanese subsidiaries offer an appropriate empirical setting since Japanese firms characterize by a significant expansion in many international markets (Gaur & Lu, 2007; Ogasavara, 2014). We also highlight Japan's importance as an origin of FDI since it was the largest foreign investor in 2017 and 2018, surpassing China. The FDI of Japanese MNE has exceeded USD 300 billion in these two years (UNCTAD, 2019b). We select the electronic sector because it is an industry with dynamic internationalization strategies, mainly due to the domestic market's saturation and the adoption of a floating exchange rate system (Yang, Jiang, Kang, & Ke, 2009). Both reasons have stimulated international investments since the 1970s, especially in Europe, the United States, and Asia. Also, a single industry segment's choice allows the exclusion of variations of other factors outside the sector.

We collect our secondary data from the Toyo Keizai database - *Kaigai Shinshutsu Kygyou Souran: Kaisha Betsu* (Toyo Keizai Inc., 2014, 2015, 2016). Other academic studies have been widely used the database, including on SFDI (Arregle et al., 2009; Chung & Song, 2004; Ogasavara & Hoshino, 2008; Song, 2002; Zhang, Zhang, & Liu, 2007). Our sample comprises 1,325 foreign subsidiaries from the

largest thirteen Japanese MNE in the electronics sector according to the Global Fortune 2016, with investments spread in 77 countries with a monitoring time of over 70 years. This period corresponds to our database's first investment (Canon's subsidiary established in Finland in 1941). We evaluated the success and failure using the Toyo Keizai editions of 2014, 2015, and 2016.

This comprehensive geographical coverage and time spread offer an excellent variance to test the impact of institutional measures. In total, we got more than 100,000 observations from the Toyo Keizai. Table 1 summarizes the sample distribution of our study.

TABLE 1 ABOUT HERE

Variables description

Dependent variable

Our dependent variable is a dummy variable that comprises a subsidiary success/failure. We used the concept of subsidiary success/failure based on Kim, Delios, and Xu (2010). A failure corresponds to the subsidiary's discontinuity (i.e., not listed anymore) in the databases used in our study (Toyo Keizai Inc., 2014, 2015, 2016), which refers to the divestment implying the closure of sell-off of an existing subsidiary (Procher & Engel, 2018). In contrast, success represents the subsidiary's continuity listed in the databases. For Cox Regression, *success* corresponds to the "censored" case (= 0) or the subsidiary's continuity. The censored data means the non-existence of the "event" until the last year when we made the observation. While the "event" case refers to *failure* (=1), meaning that the subsidiary is no longer in the database.

Additionally, as a required variable by Cox Regression, we use the subsidiary's monitoring time. We determined the subsidiary's "lifetime" by evaluating the period between 2016 or the year the subsidiary left the database and its foundation year in a host country. By considering this requirement, it provides more than 70 years of monitoring time.

Independent variables

(i) **SFDI levels** – it measures the number of SFDI made by the MNEs at the country, regional, and global

levels. We calculate it by counting the number of investments in a given host country, region, and worldwide. For the regional level, we count all investments made in the same region: (i) Asia; (ii) Europe; (iii) Latin America; (iv) North America; (v) Pacific; and (vi) Africa.

(ii) **Institutional distances –** for other independent variables, we use the concept of institutional distance between the home country (Japan) and the host country of investment considering the three pillars: regulatory, normative, and cultural-cognitive. We calculated the regulatory and normative distances based on secondary data obtained from the *World Economic Forum - The Global Competitiveness Report* (World Economic Forum, 2014, 2015) and adopting the concepts made by Powell and Rhee (2016).

- Regulatory distance – Based on Powell and Rhee (2016), we used nine constructs to calculate the regulatory distance: (i) property rights; (ii) protection of intellectual property; (iii) irregular payments and bribes; (iv) judicial independence; (v) the burden of government regulation; (vi) efficiency of the legal framework in settling disputes; (vii) efficiency of the legal framework in challenging regulations (arbitrary decisions); (viii) transparency of government policymaking (ix) strength of auditing and reporting standards. The formula is defined as follows:

$$DIREG_p = \sqrt{\sum_{c=1}^{9} (REG_{cp} - REG_{cj})^2}$$

Where *DIREG* is the regulatory distance between Japan and the host country *"p," REG* is the regulatory construct, *"c"* is the number of constructs (total of nine), *"p"* is the number of countries, and *"j"* is the construct identification for Japan.

- Normative distance – we used six constructs proposed by Powell and Rhee (2016): (i) efficacy of corporate boards; (ii) extent of staff training, (iii) degree of customer orientation; (iv) reliance on professional management; (v) willingness to delegate authority; (vi) pay and productivity. As a result, we applied the following formula:

$$DINOR_p = \sqrt{\sum_{c=1}^{6} (NOR_{cp} - NOR_{cj})^2}$$

Where *DINOR* is the normative distance between Japan and the host country *"p," NOR* is the normative construct, *"c"* is the number of constructs (total of six), *"p"* is the number of countries, and *"j"* refers to the construct identification for Japan.

- Cultural-cognitive distance – this variable is made up of the shared nature of beliefs and values, which is slower and difficult to change, giving meaning to the actors' social behavior (Scott, 2013). For calculating this indicator, we considered the concepts of Hofstede and Minkov's (2010) culture. From the Hofstede database, we used the six dimensions of national culture: (i) power distance; (ii) individualism versus collectivism; (iii) masculinity versus femininity; (iv) uncertainty avoidance; (v) long term orientation versus short term normative orientation; (vi) indulgence versus restraint. These data refer to the year 2015 (Hofstede, 2015). For calculating this indicator (DIHOF), we applied the Kogut and Singh (1988) formula, in which we standardized the values based on the variance obtained between the samples.

$$DIHOF_p = \sum_{c=1}^{6} \left[\left(HOF_{cp} - HOF_{cj} \right)^2 \Big/ V_i \right] / 6$$

Where *DIHOF* is the cultural-cognitive distance between Japan and the host country *"p," HOF* is the cultural-cognitive indicator, *"c"* is the number of constructs (total of six), *"p"* is the number of countries, and *"j"* is the construct identification concerning Japan.

(iii) **Location factors –** we considered two aspects of location factors: (a) host country; (b) region. The first relates to the host country's macroeconomic conditions, which classify the subsidiary's location in a developed or developing country. This classification bases on the United Nations data (United Nations DESA, 2014). The second variable refers to the region where the subsidiary locates: (i) Asia; (ii) Europe; (iii) Latin America; (iv) North America; (v) Pacific; and (vi) Africa.

We used both location variables as "factors" in the Kaplan-Meier procedure. Despite not having a predictive character, this procedure allows us to evaluate the survival curve based on each of the selected factors' monitoring time (Fávero & Belfiore, 2017). Table 2 summarizes all variables used in the empirical analyses.

TABLE 2 ABOUT HERE

ANALYSIS OF THE RESULTS

As stated earlier, we proceed with two statistical methods to test our hypotheses. The first evaluates the impact of SFDI, institutional distance on a subsidiary's survival based on Cox Regression (H1a, H1b, H1c, H2a, and H2b). We split our analysis into three locations: (i) country, (ii) region, and (iii) global. The second analyzes the survival curve for each location factor using the Kaplan-Meier analysis (H3a and H3b).

Cox regression: Testing the principle of proportionality

The first analysis refers to Cox's proportional hazard regression predictive model. According to the proportionality principle, this regression requires that the explanatory variables are independent of the monitoring time (Fávero & Belfiore, 2017). To test this principle, we performed the correlation test between the explanatory variables. We obtained this analysis based on the *Forward Wald* method, which is adequate when there is no certainty about the variables' significance. To calculate the correlation between the explanatory variables, we perform Schoenfeld's partial residues from the sample's observations for each of the explanatory variables. Shoenfeld residues are calculated only for observations that did not present censored data (in our case, censored data corresponds to *success*) (Fávero & Belfiore, 2017).

Since it presents a correlation between the number of SFDI for all levels (country, regional, and global), we adopted the Cox Regression procedure using time-dependent variables. In this case, after the generation of the Cox Regression data, a covariate (multiplication of a system variable that represents the time denominated "T_" by the variable that presents correlation) must be estimated. This system variable allows analyzing the significance of the time covariate coefficient and its influence on the event of interest.

Cox regression: Overall results

According to Table 3, since all split models (country, regional, and global) showed statistical significance at 0.01% level, we can reject the null hypothesis that all estimated parameters for each variable *ßj* are statistically equal to zero. At least one of the explanatory variables is significant to explain the subsidiary's survival rate. The subsidiary's survival analysis shows that the failure cases correspond to 14.4%, 13.9%, and 14.4%, respectively, at the country, regional, and global levels.

TABLE 3 ABOUT HERE

The values of the hazard rates e^{β} consist of the change in hazard for an increase in the unit of the predictive variable. Values above "1" are associated with increased risk and reduced survival times. Coefficients less than "1" are related to reducing risk and increasing survival times. In other words, it means that the increase by one unit of the predictive variable results in an increase in the probability of the event occurring by the identified factor. Similarly, if the value is less than one, the corresponding factor will reduce the event's (failure) probability.

As shown in Table 3, we have two outputs for Cox Regression. The first had not applied the time-varying effect. In contrast, the second adopted the Cox regression with a time-dependent variable, which is the product of time and the SFDI variable (T_COV). For the first output, the exponential values of SFDI at the country, regional, and global levels are above "1" and highly significant. It means that SFDI reduces the subsidiary's survival probability. However, as shown earlier in our test of proportionally, there is a need to consider SFDI with the time-varying effect. In other words, it requires applying the T_COV.

By doing it, the SFDI variables alone present no significant impact on success/failure. However, the findings show that SFDI in all levels adjusted for the difference in time (T_COV) reduces the subsidiary's survival probability. These are unexpected results since our proposed hypotheses expect that SFDI in different levels (i.e., country, regional, and global) increases the subsidiary's chance to survive. The findings also contradict prior studies.

For instance, investigating Japanese SFDI, Ogasavara and Hoshino (2009) found that experiential learning promotes an increase in capabilities and knowledge, improving subsidiaries' performance. According to the authors, the realization of SFDI is a crucial strategy for higher subsidiaries' performance compared to the first investment. However, their research focused on only one host-country for SFDI (Brazil). In another study, Zeng et al. (2013) show a higher probability of subsidiary mortality when the MNE acquires experiences in a dissimilar culture. However, their study used the monitoring time of 16 years (1990 to 2006) and only one institutional element: culture. Unlike both studies, our empirical research analysis for SFDI comprises 77 host countries and assesses over a more extended monitoring time (over 70 years). These could be some of the causes of the differences found.

To find other potential moderating factors in the SFDI relationship and the subsidiaries' success/failure, although not depicted in this paper, we performed an additional analysis of Cox regression using three control variables described in Table 4.

TABLE 4 ABOUT HERE

None of the control variables presented statistically significant results at the country, regional, and global levels. Factors related to labor availability, subsidiary size, and the host country's market size do not influence the model. Taken together, which means, considering the additional analysis and output of the Cox regression with time-dependent variable, these results suggest that we cannot support the hypotheses H2a (country), H2b (regional), and H2c (global). In other words, SFDI at different levels had reduced and not increased the probability of the subsidiary's survival. We are going to debate these findings more in the discussion and conclusion.

Concerning different institutional distances in Table 3, we did not find any significant result regarding the impact of regulatory distance on subsidiary survival in any SFDI models. It suggests that when considering SFDI, regulatory aspects are not the institutional factor influencing subsidiaries' success or failure, which follows Francis et al. (2009) proposition. According to the institutional theory (North,

1991; Scott, 1995; Scott et al., 2011), it is easier to fulfill the "regulatory" force since they are the explicit "rules of the game." We can infer that, after a long monitoring time (over 70 years in our study), Japanese subsidiaries could adapt more quickly to regulatory elements. Hence, the findings support our hypothesis H1a.

For normative distance, although all coefficients show exponential values above "1", which associates to reduce the probability of the subsidiary's survival in all SFDI levels, none of the results are statistically significant. It did not work following Francis et al. (2009), who propose that normative forces have a more substantial impact on SFDI. Initially, the MNE subsidiaries are impacted by the host country's coercive forces, which refers to the forces coming from legal and political power that can be understood as the regulatory force. After this first entry, the authors argue that normative aspects have the most significant influence on SFDI. The authors state that the normative element refers to "the existence of professional consensus" (Francis et al., 2009, p. 569); however, our findings show that normative aspects do not assess the long-term effect. Thus, it leads to rejecting our hypothesis H1b.

Surprisingly, regarding the cultural-cognitive distance, the results show an influence (statistically significant) in reducing the hazard rate of failure in the host country and worldwide. In other words, the greater the cultural distance, the higher the probability of the subsidiary's survival at the country and global levels. In this way, the findings go in the opposite direction of our proposed hypothesis, which expects that the cultural distance reduces the subsidiary's survival probability. The result itself can be an indicator of two relevant aspects in defining the construct. First, it relates to criticisms about how cultural distances are estimated and whether this construct is an adequate indicator for evaluating the actual institutional distance between host countries and MNE's home country (Hutzschenreuter, Kleindienst, & Lange, 2016; Stahl, Tung, Kostova, & Zellmer-Bruhn, 2016). Second, MNEs should consider the positive aspects of cultural distance instead of considering it a barrier. For instance, Edman (2016) highlights the positive implications of being "foreign" in MNE activities in other countries. The author argues that a foreign subsidiary does not depend on both the host country and the MNE headquarters' nationality. The estimated social significance gives the effective "distance" with the degree of the subsidiary's foreignness.

Similarly, Tihanyi, Griffith, and Russell (2005) evaluate that cultural distance improves performance in certain conditions due to the combination of different skills acquired in the host country and those existing in the MNE. Based on our findings, H1c is not supported.

In the following, we will present the results of the second method used in our research: Kaplan-Meier analysis to investigate the impact of location factors on a subsidiary's survival.

Kaplan-Meier analysis: Host country development factor

We obtained a sample of 1,325 subsidiaries distributed between 812 in developed countries and 513 in developing countries. The Kaplan-Meier analysis depicts the establishment of the survival probability curve for different monitoring times. These curves typically have a shape of descending steps, whereas survival's probabilities tend to be lower over time (Fávero & Belfiore, 2017).

TABLE 5 ABOUT HERE

According to Table 5, there is no significant difference between groups (developed versus developing) for up to 17 years. However, from the chart depicts in Figure 2, it can be seen that the survival probability at the end of the monitoring time is significantly different with regards to the host country's development level. The most interesting aspect of this chart is that there is no change in the probability of survival for approximately 45 years for developed countries when after this period it stabilizes at 0.77. For developing countries, this figure stabilizes only after 50 years at 0.62.

FIGURE 2 ABOUT HERE

The model provides a statistically significant difference ($p<0.05$) between the groups of developed versus developing countries based on the Wilcoxon test. This test is more suitable for comparing the survival probability distribution between groups based on the differences between the means (Fávero & Belfiore, 2017). Based on the results, we confirm our hypothesis H3a. When considering SFDI, the location factor related to the host country's development increases the probability of the subsidiary's

survival (*success*). It suggests that the development stage is a sign of economic stability and wealth to proceed with the SFDI decision, impacting subsidiary performance. The findings confirm Rittippant and Rasheed (2016) that claim that host country factors such as economic growth influence MNEs' decision to increase, delay or exit their SFDI.

Kaplan-Meier analysis: Region factor

By classifying our location based on the region, we got the following distribution (Table 6) regarding the accumulated survival at the end of the interval and monitoring time. In Africa, we have only nine observations but no failure. Therefore, we could not consider Africa as a region in the analysis.

A closer inspection of Table 6 shows more significant differences from 15 years ahead. At the end of the monitoring time, on the one hand, we can see that the Pacific region, Europe and North America present a similar survival probability. On the other hand, Asia and Latin America show a low level of survival rate.

TABLE 6 ABOUT HERE

What stands out in Figure 3 is the Pacific region pattern, which is flatter and had not presented many changes during the monitoring time. Additionally, the curve's stability starts at 45 years for the Pacific region, Europe, North America. The chart shows that the Latin American region presented a considerable drop about the 50 years of monitoring time and the worst survival rate (0.47). From this period, it remains flat as in the Asian region.

Based on these findings, we can infer two significant groups: (i) the Pacific, Europe, and North America; (ii) Asia and Latin America. It suggests that the first is the group with the most outstanding political and economic stability. In contrast, the latter seems to be characterized by less developed countries regarding the institutional environment. The results are in line with Fisch (2011), who argues that "the political instability of the host country has a negative impact on subsequent investments" (Fisch,

2011, p. 524). If we extend the analysis to the region where MNE performs SFDI, we conclude equivalent results.

FIGURE 3 ABOUT HERE

Considering the overall comparison of the survival rate among all regions using the Wilcoxon test, it shows a significant result ($p<0.05$), as shown in Figure 4. When comparing pairs of regions (pairwise comparisons), on the one hand, we can verify a statistically significant difference between Asia and Europe ($p<0.05$), Asia and the Pacific ($p<0.05$), Latin America and the Pacific ($p<0.10$), North America and the Pacific regions ($p<0.05$). Also, we found significant differences between the Pacific region and other regions (except for Europe). On the other hand, we did not find statistically significant differences in the subsidiary's survival between North America and other regions (except the Pacific). Therefore, we partially confirmed our hypothesis H1b.

FIGURE 4 ABOUT HERE

DISCUSSION AND CONCLUSIONS

This study investigated the impact of SFDI in different levels (i.e., country, regional, and global) on the success/failure of a Japanese subsidiary, considering the institutional distance (i.e., regulatory, normative, and cultural-cognitive elements) and location factors of the host country and region.

Our study contributes to IB literature in three relevant aspects. First, it shows that the location's economic development is essential in the subsidiaries' survival rate. It is not only at the host country level stated by the literature (Rittippant & Rasheed, 2016) but also at the regional level following the claims of Chan et al. (2006) and Arregle et al. (2009). Second, our analyses allow us to assess the effect of time for a subsidiary's survival on institutional distances and different SFDI levels. Since we had 75 years of monitoring time and a more significant number of subsidiaries (1,325) and locations (77 countries), our

results show that the effect of institutional distances related to regulatory and normative aspects of subsidiaries' survival are minimal in a long period of monitoring. Our results complement the theoretical research by Francis et al. (2009).

On the one hand, we confirm that the coercive (regulatory) forces had no impact on subsequent investment. On the other hand, we did not find that SFDI would be more impacted by normative forces. One explanation is that Francis et al. (2009) had not considered these institutional forces' long-term effects when establishing their propositions.

The findings show that institutional distance associated with cognitive-cultural elements would benefit the subsidiary's longevity, contrary to our expectations. Hutzschenreuter, Kleindienst, and Lange (2014) suggest that governmental, cultural, and geographic distance hurts subsidiaries' performance, but their study comprises 22-years' time that could explain this divergent result. Cultural aspects are considered a long-standing element of change (Scott, 1995). In this manner, we can assume that MNEs can learn with dissimilar cultures (Zeng et al., 2013) and use these differences as advantages instead of barriers (Edman, 2016). In the end, this learning can impact on subsidiary's performance in the long term. In this way, we contribute to the institutional theory in IB by showing that monitoring time is a relevant factor that must be considered when analyzing the institutional aspects.

Simultaneously, the findings show that SFDI at country, regional, and global levels are also strongly connected over time. Still, divergent from what we hypothesized, it would reduce the subsidiary's survival probability. It suggests that with an extended monitoring period and considering the institutional factors, the MNEs tend to establish new ventures with subsequent investments at the host country, regional or global levels. At the same time, MNEs divest (closure or sell-off) old investment in these locations. This idea is in line with the real options and portfolio perspective of Belderbos and Zou (2009). They claim that MNEs increase the subsidiary portfolio and overall capacity with subsequent investments while raising the risk of redundancies within the subsidiary network. Thus, if the foreign unit becomes redundant to the MNE's option value of the affiliated portfolio, the subsidiary is more likely to be divested. New investments often employ more updated and efficient technologies, equipment, production

process, and services, which causes threat and intersubsidiary competition within MNEs (Procher & Engel, 2018).

To some extent, it also confirms that the strategies to expand, postpone or terminate the investment are contingent on the host country's economic volatility (Fisch, 2011), or it relates to the MNE flexibility perspective in shifting intra-firm product due to labor costs (Song, 2014). In the same vein, Rittippant and Rasheed (2016) argued that the host country's factors, such as economic growth, economic freedom, industry competitiveness, and ownership concentration, still significantly impact SFDI decisions. Future studies should investigate the moderation effects that can better understand the relationship between SFDI and a subsidiary's survival. For instance, the speed and pace of expansion (Bauer & Matzler, 2014; Chang & Ogasavara, 2019; Jiang et al., 2014), type of commitment of the subsidiary (Barin Cruz, Boehe, & Ogasavara, 2015; Grandori & Soda, 1995; Rittippant & Rasheed, 2016) are essential aspects in assessing the survival of the subsidiary.

Third, when considering institutional distances as a measurement for different aspects between countries, particularly when analyzing an extended monitoring time, we can discuss whether the parameters used are adequate constructs to measure institutional differences. Shenkar (2001) criticizes some assumptions of the cultural distance construct. For instance, one belief that cultural distance is symmetric. It means that Japan's cultural distance to the U.S. would be the same from the U.S. to Japan. Zaheer, Schomaker, and Nachum (2012) follow this critic for improving distance constructs, but in a generic nature. Hutzschenreuter et al. (2016) suggest that using the host country as a point of reference may not be adequate considering that each MNE has a different stock of knowledge to "overcome" the distance barrier. Another way of critics related to the institutional distance is that it considers only border effects; in other words, the distance at the national level (i.e., country). It ignores the subnational distance effects (Beugelsdijk & Mudambi, 2014). A growing number of IB studies have recently taken into account the subnational institutions' relevant role (Hutzschenreuter, Matt, & Kleindienst, 2020; Li, Xia, Shapiro, & Lin, 2018; Ma, Ding, & Yuan, 2016). Further studies, which take the subnational institutions into account, will need to be undertaken.

Nevertheless, this study has some limitations that suggest possible recommendations for future research. First, it refers to the nature of the database, the MNE's nationality, and the sector used in this study. Since we consider failure as the subsidiary's exit in the database, it could happen that the MNE had not reported the continuity of the Japanese unit or the change of the subsidiary's name to the Toyo Keizai in a specific year. We made all efforts to capture this information by using three consecutive years of the database. A subsidiary may have exited the database for other reasons than failure (e.g., a joint venture with a change of its name). Future research should consider other databases to test our hypotheses. However, the Toyo Keizai consists of a unique database with detailed information on each Japanese subsidiary's operations covering an extended period. Concerning Japanese companies in the electronics sector, this study's results must be considered with caution since we consider Japan a focal point in calculating distances. The findings could be limited to the context of Japanese investment perspectives. Also, other sectors may require more significant interaction with regulatory elements that may present different results. Further research should consider MNE from other nationalities and sectors to test our hypotheses.

Finally, this study also presents relevant managerial contributions by carrying out a broad assessment of investments made by MNEs and the effects of institutional distances on the Japanese subsidiaries' survival. An innovative aspect of the analysis is applying the SFDI at three different levels: country, regional, and global. By highlighting the importance of economic factors in subsidiaries' survival, the results can help MNEs managers decide more carefully about the counties/regions to invest in. This study contributes to the deepening understanding of how SFDI and institutional distances impact a Japanese subsidiary's success/failure. There is abundant room for further progress, allowing and encouraging new perspectives and studies on SFDI.

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FIGURES

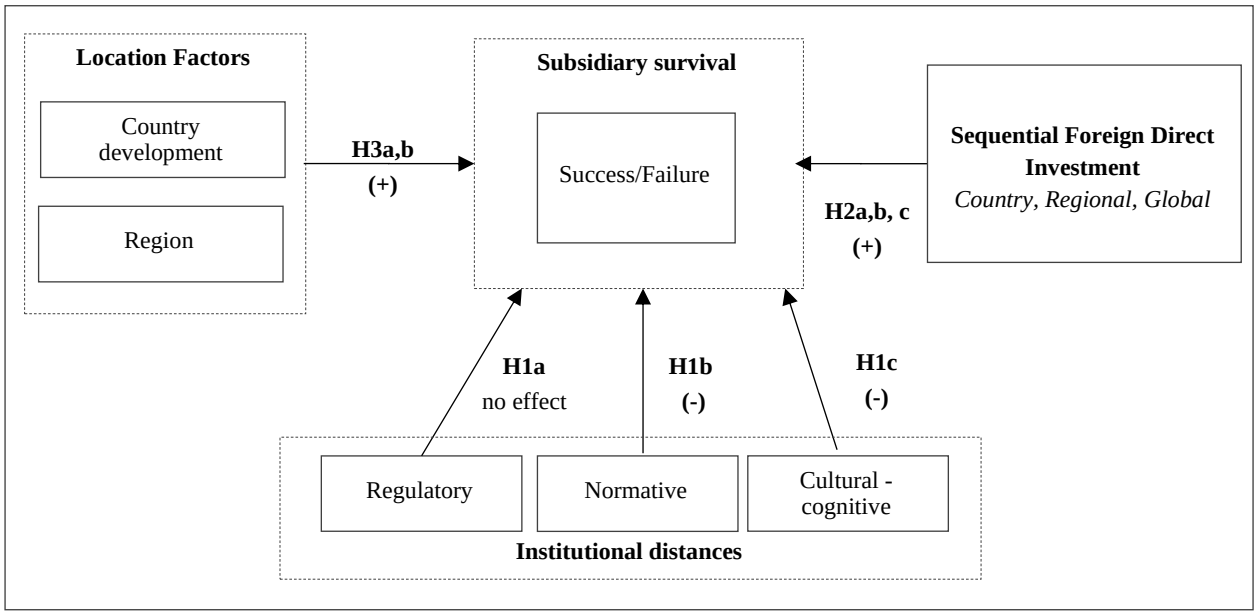

Figure 1 – Conceptual framework and hypotheses
Source: Prepared by the authors
Note: (-) refers to reduce the probability of the subsidiary's survival, while (+) means to increase this probability.

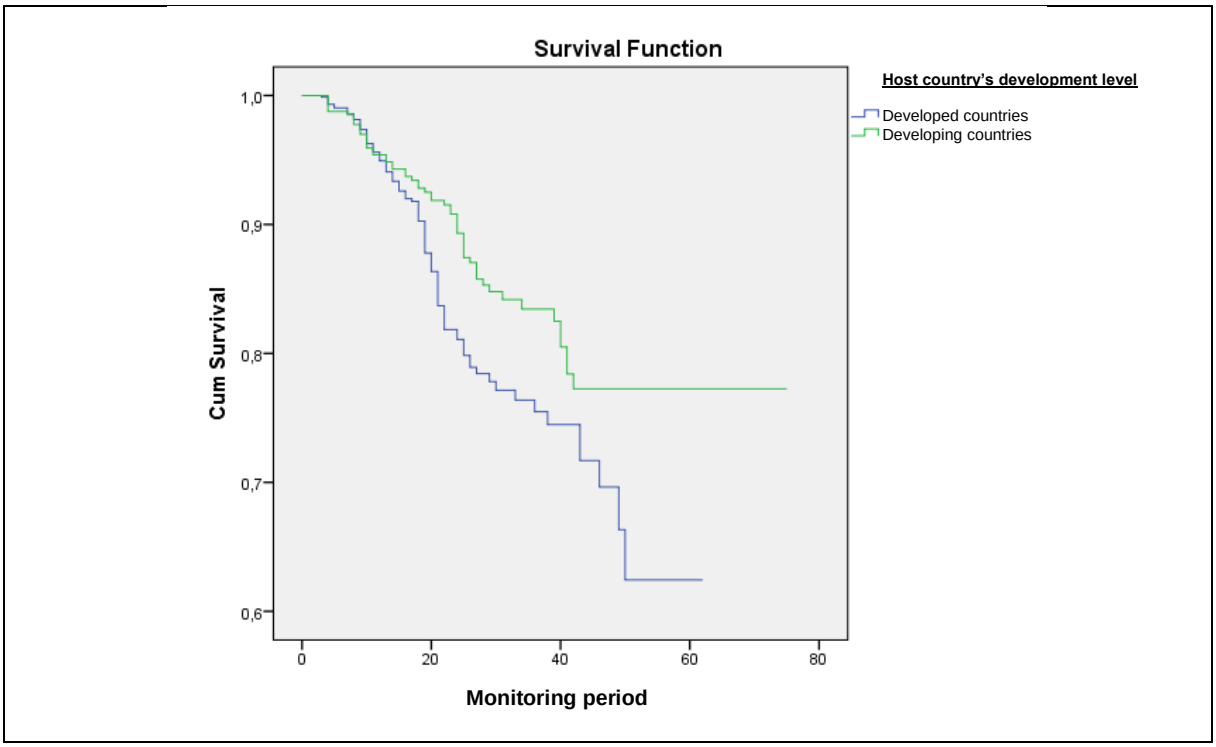

Figure 2: Survival probability curve: host country development by Kaplan-Meier procedure
Source: Prepared by authors

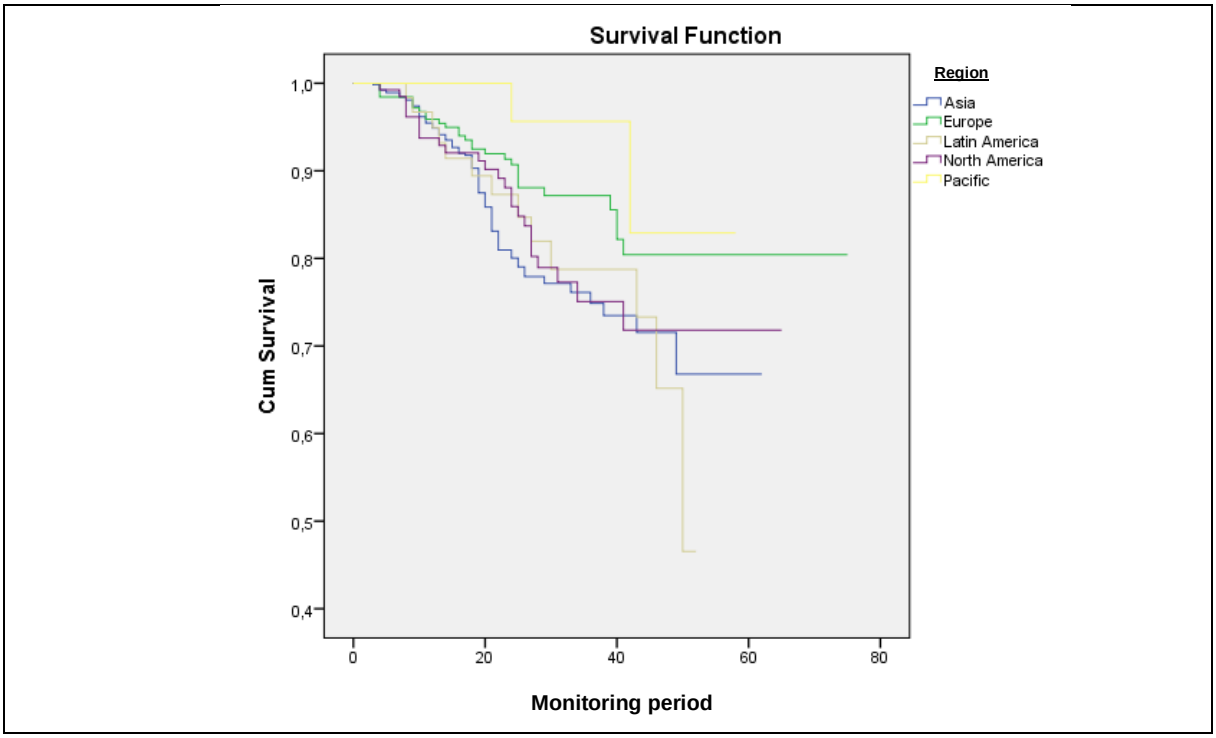

Figure 3: Region survival probability curve based on the Kaplan-Meier procedure
Source: Prepared by the authors
Note: It has not considered the African region since there is no observation of the event (failure)

Overall Comparisons[a]

Wilcoxon (Gehan) Statistic	df	Sig.
10,771	4	,029

a. Comparisons are exact.

Pairwise Comparisons[a]

(I) Regiao	(J) Regiao	Wilcoxon (Gehan) Statistic	df	Sig.
2	3	5,453	1	,020
	4	,277	1	,599
	5	,439	1	,508
	6	6,229	1	,013
3	2	5,453	1	,020
	4	,917	1	,338
	5	2,370	1	,124
	6	2,069	1	,150
4	2	,277	1	,599
	3	,917	1	,338
	5	,016	1	,900
	6	3,588	1	,058
5	2	,439	1	,508
	3	2,370	1	,124
	4	,016	1	,900
	6	4,267	1	,039
6	2	6,229	1	,013
	3	2,069	1	,150
	4	3,588	1	,058
	5	4,267	1	,039

a. Comparisons are exact.

Figure 4: Wilcoxon test – Overall and pairwise comparisons of the survival rates
Source: Prepared by the authors
Notes: Regions code: 2=Asia; 3=Europe; 4=Latin America; 5=North America; 6=Pacific. Region 1=Africa is not a valid case since there is no observation with the event (failure)

TABLES

Table 1: Sample distribution

Multinational Enterprise (MNE)	Number of foreign subsidiaries	Number of countries
Brother Industries, Ltd.	51	32
Canon Inc.	78	39
Fujitsu Limited	54	21
Hitachi, Ltd.	83	20
Konica Minolta, Inc.	113	42
Mitsubishi Electric Corporation	110	32
NEC Corporation	68	34
Omron Corporation	89	35
Panasonic Corporation	313	46
Ricoh Company, Ltd.	91	51
Sharp Corporation	65	27
Sony Corporation	100	31
Toshiba Corporation	110	27
Total	**1,325**	**77**

Source: Prepared by the authors (Toyo Keizai Inc., 2014, 2015, 2016)

Table 2: Variables description

Variables	Description	Source
For Cox regression		
Monitoring time	Subsidiary lifetime. For the *CENSORED* case (success), we considered the period between 2016 and the subsidiary's established year in the host country. For the EVENT case (failure), we evaluated the period between 2016 and the subsidiary's exit year in the database.	Toyo Keizai Inc. (2014, 2015, 2016)
Dependent variable		
Success or Failure	Success corresponds to the CENSORED event (= 0) or subsidiary continuity. Failure corresponds to the EVENT of interest (= 1), which means that the subsidiary is no longer in the database.	Toyo Keizai Inc. (2014, 2015, 2016)
Independent variables		
SFDI levels		
Country, Regional, Global levels	Total of SFDI made in the host country, region, and worldwide for a given subsidiary (number) in the period analyzed.	Toyo Keizai Inc. (2014, 2015, 2016)
Institutional distances		
Regulatory Distance	Assessment of the differences between regulatory conditions (according to the formula for DIREG).	World Economic Forum (2014, 2015)
Normative Distance	Assessment of the difference between the implicit and explicit organizational standards (according to the formula for DINOR).	World Economic Forum (2014, 2015)
Cultural-cognitive Distance	Assessment of cultural differences (according to the formula for DIHOF).	Hofstede (2015)
For Kaplan-Meier analysis		
Location factors		
Host country development	The situation of the country's economic development. 1=Developed country; 2=Developing country	United Nations DESA (2014)
Region	Location region of the host country. 1=Africa; 2=Asia; 3=Europe; 4=Latin America; 5=North America; 6=Pacific	UNCTAD (2019a)

Source: Prepared by the authors

Table 3: Cox Regression - SFDI split by country, region, and global

SFDI	Country	Region	Global
Valid data	1,135	1,128	1,136
Censored data (success)	972	971	972
Events (failure)	163	157	164
Block 1 Method Enter	112,098	97,703	129,620
Statistic value χ2	(0.000)	(0,000)	(0,000)
Cox regression (without time-dependent variable)			
SFDI levels (country, regional, global)	**1,218*** (0,000)**	**1,100*** (0,000)**	**1,011*** (0,000)**
Regulatory distance	1,058 (0,473)	1,011 (0,891)	1,061 (0,417)
Normative distance	1,150 (0,401)	1,064 (0,703)	0,991 (0,956)
Cultural-cognitive distance	**0,784** (0,017)**	0,876 (0,159)	**0,831** (0,045)**
Cox Regression (with time-dependent variable)			
T_COV_ Covariable between SFDI at the country, regional, and global levels with "t" time	**1,013*** (0,000)**	**1,006*** (0,000)**	**1,001*** (0,000)**
SFDI levels (country, regional, global)	1,060 (0,185)	1,014 (0,538)	0,996 (0,118)
Regulatory distance	1,026 (0,752)	0,995 (0,951)	1,033 (0,661)
Normative distance	1,286 (0,144)	1,117 (0,502)	1,033 (0,834)
Cultural-cognitive distance	**0,743*** (0,005)**	0,887 (0,200)	**0,850* (0,081)**

Source: Prepared by the authors

Notes: The coefficient is the exponential values of e^{β} hazard rate; Values in parentheses refer to the statistical significance; All variables obtained with Cox Regression using the Enter Method; * significant at 10% level; ** significant at 5% level; *** significant at 1% level

Table 4: Description of control variables for additional analysis

Control variables	Description	Source
Available labor force	Labor force participation rate -% of the total population ages 15-64	The World Bank (2019)
Host country's market size	The logarithm of GDP of the host country	Euromonitor International (2019)
Subsidiary size	The logarithm of the amount of capital invested in the subsidiary	Toyo Keizai Inc. (2014, 2015, 2016)

Source: Prepared by the authors

Table 5: The accumulated probability of survival – Host country development factor

Monitoring time (years)	**The accumulated probability of survival at the end of the interval**	
	Developing country (812)	***Developed country (513)***
5	0.99	0.99
10	0.96	0.95
15	0.92	0.94
17	0.90	0.93
20	0.84	0.92
50	0.62	0.77
75	-x-	0.77

Source: Prepared by the authors, based on Kaplan-Meier
Note: Total subsidiaries in parentheses.

Table 6: The accumulated probability of survival – Region factor

Monitoring time (years)	**The accumulated probability of survival at the end of the interval** Region / total subsidiaries in parentheses				
	Asia (705)	***Europe (306)***	***Latin America (87)***	***North America (187)***	***Pacific (31)***
5	0.99	0.98	1.00	0.99	1.00
10	0.95	0.96	0.97	0.94	1.00
15	0.92	0.94	0.91	0.92	1.00
20	0.83	0.92	0.87	0.90	1.00
30	0.77	0.87	0.79	0.77	0.96
50	0.67	0.80	0.47	0.72	0.83
60	0.67	0.80	0.47	0.72	0.83
75	0.67	0.80	0.47	0.72	0.83

Source: Prepared by the authors based on the Kaplan-Meier procedure
Note: It has not considered the African region since there is no observation of the event (failure)

Antecedents and consequences of general manager succession in foreign subsidiaries: A mixed-methods approach.

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Paul Beamish, Ivey Business School
Andreas Schotter, Ivey Business School

ANTECEDENTS AND CONSEQUENCES OF GENERAL MANAGER SUCCESSIONS IN FOREIGN SUBSIDIARIES: A MIXED-METHODS APPROACH

ABSTRACT

This paper addresses whether general manager (GM) successions accelerate or decelerate the momentum for further GM change, and improve or disrupt firm performance. Multinational enterprise (MNE) managers can learn from prior GM change in the subsidiary when appointing an appropriate candidate, thus improving subsidiary performance and decelerating the momentum for further GM change. We argue that the reduced marginal costs of making additional succession decisions may increasingly render GM change more likely. We found that the accumulated shocks with every change may ultimately translate into poor subsidiary performance and lower survival likelihood. To further improve survival, we suggest that the subsidiary deploy a parent country national GM at its founding, followed by host country national successors, as this sequencing logic maximizes the value of knowledge recombination. A longitudinal analysis of 2,790 Japanese subsidiary firms plus the use of qualitative methods provides empirical evidence to support these arguments.

INTRODUCTION

Key personnel succession is a critical managerial issue in a firm's lifecycle (Schepker, Kim, Patel, Thatcher, & Campion, 2017) and has been subjected to great scrutiny (Berns & Klarner, 2017; Bilgili, Calderon, Allen, & Kedia, 2017; Farah, Elias, De Clercy, & Rowe, 2020; Giambatista, Rowe, & Riaz, 2005; Kesner & Sebora, 1994). But only modest attention has been paid to investigating changes in foreign subsidiary GMs of MNEs. We view it as a substantial gap in the literature, as the subsidiary GMs are crucial to subsidiary-level performance (Meyer, Li, & Schotter, 2020; O'Brien, Scott, Andersson, Ambos, & Fu, 2019) and changing these managers may materially impact a subsidiary's performance (Bebenroth & Froese, 2020; Beechler, Bird, & Taylor, 1998). The need for a systematic understanding of subsidiary GM successions is also pressing, given that the COVID-19 pandemic has spurred MNEs' strategic reorientation in many host countries at a time when sending managers on international assignments is difficult (Caligiuri, De Cieri, Minbaeva, Verbeke, & Zimmermann, 2020).

Concurrently, two competing lines of inquiry adopting a dynamic perspective have emerged in the organizational studies literature to investigate the factors contributing to GM change. First, some researchers highlight the recursive nature of organizational practices by arguing that organizational change is considered a self-reinforcing process (Amburgey & Miner, 1992), such that prior change reduces the marginal costs of making similar changes and thus accelerates the momentum for further change (Amburgey, Kelly, & Barnett, 1993). In the present context, we call it the acceleration model. But more recently, other researchers have argued that organizational practices possess adaptive characteristics, as they are prone to learning and thereby refinement (Jarzabkowski, 2004). Accordingly, empirical evidence from this line of inquiry reveals that managers can learn to change by changing, therefore earlier changes in GMs decelerates the momentum for further change (Beck, Brüderl, & Woywode, 2008). We call it the deceleration model.

The distinctive features of MNEs, however, may render the preceding acceleration or deceleration models less directly applicable to the setting of foreign subsidiaries. The acceleration pattern may prevail because the environment facing MNEs is much more complex than that facing domestic firms (Cooke,

Wood, Wang, & Veen, 2019; Kano & Verbeke, 2019), rendering bounded-rational senior MNE managers more prone to solutions with lower marginal costs. However, the deceleration pattern may also prevail when considering MNEs' superior capabilities in the creation and internal transfer of knowledge (Kogut & Zander, 1993). These brief considerations suggest that the acceleration-deceleration arguments warrant theoretical adaptations in order to inform subsidiary GM change.

Theoretical and empirical inconsistencies also exist among the organizational studies on the consequences of GM change (Giambatista et al., 2005; Hutzschenreuter, Kleindienst, & Greger, 2012; Kesner & Sebora, 1994). Similarly, however, directly applying these existing succession-performance theories to the setting of foreign subsidiaries may also present challenges, because these models were developed within a domestic setting, where no role exists for the nationality of the GM (Müllner, Klopf, & Nell, 2017). But for MNEs, the nationality of the subsidiary GM is crucial.

This study addresses two questions: *Will subsidiary GM successions accelerate or decelerate the momentum for further GM change, and will this improve or disrupt subsidiary performance?* We first draw upon a field research to juxtapose our empirical observations against the extant succession theories. Following the qualitative inquiry, we then ground this study in evolutionary theory (Kogut & Zander, 1993, 1995, 1996, 2003), central to which is that MNEs are social communities wherein knowledge can be efficiently created and internally transferred. It is also inherently dynamic, given that the knowledge is routinized from past experiences and can be recombined with newly acquired knowledge for value maximization (Verbeke, 2003), thus enabling us to explore long-term issues in subsidiary GM deployment. We finally formulate hypotheses based on an expanded theory of subsidiary GM successions and draw on Japanese longitudinal data to test our hypotheses.

Specifically, we argue that senior MNE managers can draw lessons from past succession experiences to refine succession routines in order to appoint an appropriate GM successor, thus decelerating the momentum for further GM change. Concurrently however, with every GM change the marginal costs of making succession decisions will also decline. This may increasingly make subsidiary GM change, as a means of realigning with the external environments and with the interests of the board of

directors (Friedman, 2017; Ocasio, 1999), more attractive and yet more suboptimal. From a threshold onward, therefore, prior GM successions can accelerate the momentum for further subsidiary GM change.

Exploring the pace of change then paves the way for a dynamic investigation of the strategic value of subsidiary GM successions. We argue that the number of successions may show a curvilinear association with firm performance. Also, we argue that shocks associated with each implementation of the GM succession will accumulate and ultimately translate into lower survival likelihood. However, we suggest that MNEs can reduce the survival risk by appointing a PCN GM at subsidiary founding and change to HCN GMs in the later stage, because this specific sequencing logic maximizes the value creation potential of knowledge recombination.

This study aims to make the following contributions. We call attention to the dynamic nature of foreign subsidiary GM staffing strategies (Belderbos & Heijltjes, 2005; Riaz, Rowe, & Beamish, 2014). By exploring the antecedents of subsidiary GM changes, it shows that the deceleration and acceleration momentum take place *sequentially* within the organization. By investigating the consequences of subsidiary GM changes, it shows that subsidiary GM successions can be *both* adaptive and disruptive, depending on the number and pattern of change. As such, it leverages the distinctiveness of MNEs to address the inconsistencies in the extant succession literature and provides a more predictive theory of foreign subsidiary GM successions.

BACKGROUND

Succession Antecedent: Acceleration–Deceleration Debate

Studies have established that repetitive momentum, defined as the tendency to adhere to the previous direction of actions in current behaviors (Kelly & Amburgey, 1991), can occur when organizations keep repeating a specific action (Amburgey et al., 1993; Amburgey & Miner, 1992). One reason for the acceleration tendency is that experiential learning processes are strongly path-dependent (Baum & Ingram, 2002; Sydow, Schreyögg, & Koch, 2009). The efficiency of any particular procedure increases with use, which then results in the more frequent use of the procedure, irrespective of whether or not the procedure is inferior (Levitt & March, 1988). Decisions are repeated simply because they were

made before (March, Sproull, & Tamuz, 1991). As firms become more prone to following their own "wisdom," repetitive momentum arises (Dobrev, Kim, & Carroll, 2003).

However, this acceleration model builds on some assumptions that have been challenged. Specifically, it assumes away the facilitating role of the environment and implies the automaticity of learning. But when the context facilitates or encourages performance feedback and evaluation, learning behavior can also be "cognitively rich" (Posen, Keil, Kim, & Meissner, 2018). Rooted in the same Carnegie School tradition (Cyert & March, 1963) as the foregoing acceleration argument, Beck et al. (2008) pointed out that as organizations learn to change by changing over time, the need to replace CEOs again should lessen. Therefore, prior changes decelerate the momentum for further change. Through the accumulation of experience in changing GMs, firms will refine their succession routines and aspirations, and modify search and attention rules. Thus, this argument contrasts squarely with the acceleration model, but underneath this argument also lies some strong assumptions: e.g., that information is rich and available, and feedback is prompt and non-random. Realistically, however, when the organizational structure and environment are complex or when the decision makers pay only limited attention to the means-end relationships, key outcome information may remain unclear (Bazerman, 2006), rendering the refinement of the routines less likely.

Succession Consequence: Adaptation–Disruption Paradox

The foregoing acceleration–deceleration models suggest different paces of change, and the pace of change is found to be a major contingency factor that moderates the succession–performance relationships (Klarner & Raisch, 2013; Rowe, Cannella, Rankin, & Gorman, 2005). Efforts to address the acceleration–deceleration debate, therefore, can also lay the theoretical and empirical foundation for examination of the consequence paradox–the intriguing double effect of GM successions. Results from two recent meta-analyses (Bilgili et al., 2017; Schepker et al., 2017), for example, primarily support the disruption perspective, which considers managerial succession as a destabilizing factor and associated with significant disturbances. Other research, however, characterizes managerial succession as an adaptation mechanism (e.g., Grusky, 1963; Huson et al., 2004).

There have been efforts to resolve the inconsistency. For instance, Rowe et al. (2005) deal explicitly with the topic of time. It indicates that due to time compression diseconomies (Dierickx & Cool, 1989), new leaders will take time to accumulate organization-specific knowledge before they can take actions that will positively affect performance. Therefore, if firms give new leaders time to learn, it is more likely to result in a positive succession-performance relationship. Underpinning this line of inquiry is a notion that too many changes are disruptive (Amburgey et al., 1993; Giambatista et al., 2005), thus time is primarily an opportunity. Yet time can also be portrayed as a threat (Berends & Antonacopoulou, 2014). Because changes in the external environment render the existing knowledge within the organization obsolete or even irrelevant (Berends & Antonacopoulou, 2014), and because managers take time to learn in order to bring about the "real change" (Mitchell & James, 2001), the depreciation of knowledge may also ensue. Indeed, over time incumbent GMs might be unwilling or unable to make significant changes (Barner-Rasmussen, 2003; Shen & Cannella, 2002). Thus, to reduce the organizational inertia, MNEs may consider the subsidiary GM succession as a possible solution. The question which still remains, then, is how many successions subsidiaries should undertake.

Mixed-Methods Approach

Given the inherent links between the acceleration–deceleration debate with the adaptation–disruption paradox, we investigate these two theoretical inconsistencies simultaneously. However, considering the current theoretical puzzles, coupled with the complex context of this study, a narrow methodological approach might only reveal a small slice of the reality. We thus utilize a mixed-methods approach (Hurmerinta-Peltomäki & Nummela, 2006). First, we formulate a preliminary analytical framework based on the foregoing succession theories. We then collect qualitative data through interviews, and constantly go back and forth between theory and data to explore which theories can better explain the succession phenomenon in the setting of foreign subsidiaries. Through systematic combining and progressive focusing (Dubois & Gadde, 2002; Sinkovics & Alfoldi, 2012), the initial qualitative inquiry reveals that the antecedents as well as consequences of GM successions within foreign subsidiaries hinge on the evolution of the MNEs' knowledge about successions and the combination of

the knowledge brought into the subsidiary by GM predecessors and successors. In the second stage of the investigation, therefore, we ground the study in an evolutionary perspective (Kogut & Zander, 1993) and use quantitative hypothesis testing to better inform the subsidiary GM successions. We introduce the qualitative research first.

STAGE 1: EXPLORATORY STUDY AND QUALITATIVE FINDINGS

Methods

We first ground this study in emprical observations in the setting of foreign subsidairies. From a reflexivity perspective (Bansal & Corley, 2011), it is important to note that two members of the research group used to be foreign subsidiary GMs and another previously worked within three subsidiaries of a Fortune 500 company. Because we believe what we will observe will be influenced by who we are and what we hope to see (Suddaby, 2006), we developed the interview outline based on both the extant literatures and our personal experiences.

Semi-structured interviews were the main data source. This kind of interviews is deemed appropriate for interviewing informants who cannot be reached on many separate occasions (Bernard, 2000). The interview format is based on the foregoing interview outline, in which we have an open-ended sequence of questions. Meanwhile, we used the secondary sources such as subsidiary GMs' resumes from LinkedIn, annual reports and published cases to triangulate information. One investigator took copious notes immediately after each interview (Eisenhardt, 1989). These notes, summarizing the interviews in a logical manner, can help us to bring the raw data into a manageable form.

Before the field work, we formulated a set of propositions based on both our emic views on subsidiary GM successions and deductive reasoning based on extant literature. However, as our qualitative exploration unfolded, our research questions were refined and we developed a new set of formally stated observations that were empirically grounded. Table 1 describes these data sources.

Insert Table 1 about here

Next, we present these observations, which reveal the inherent links between the extant literatures.

Subsidiary GM Successions as a Learning Process

Our data confirms that many MNE decision makers still do not know where to find the best subsidiary GM successor candidates (Collings, Scullion, & Morley, 2007). Some informants told us that they learned how to manage subsidiary GM successions in a trial and error manner. When experience is limited, MNE decision makers rely more on their own feelings, and are concerned about complex issues associated with the successions. For these MNEs, successions are goal-based behaviors in the sense that different attempts are made to reach the goal (Rasmussen, 1983).

Subsidiary GM Successions as Routines

Concurrently, however, our data also indicate a contrasting view where subsidiary GM successions can be best described as "routines" (Ocasio, 1999). In these observations, the change of subsidiary GMs seems to occur often, easily, and smoothly. Successions may also take place for various reasons, such as when a new assignment is due, the performance is poor, or the GM did not follow the code of conduct. Some successions even occurred because the subsidiary GMs could not meet the expectations of the MNE managers, though they did turn around the subsidiary performance. Successions in these MNEs are rule-based in a sense that they are controlled by a set of stored rules. As noted by Rasmussen (1983), this kind of human activity will be more likely to occur in a familiar environment while goal-based behaviors are more likely to be observed in unfamiliar situations. In combination, therefore, the data sensitize us to maturity effects in social systems where time as a context can prompt nonlinear effects (Johns, 2006).

The Role of GM Nationality in Subsidiary GM Successions

Our data suggest that GM nationality is a crucial aspect of the subsidiary GM succession decision making (Bebenroth & Froese, 2020). The informants see the value in the PCN's knowledge about the MNE and products, and the value in the HCN's local knowledge, but they do not evaluate the efficacy of each succession event in isolation. Rather, MNE decision makers also look at the sequencing logics underlying the continual change. In general, these MNEs are following four specific patterns. There are constant localizers which keep employing HCN GMs; constant integrators only using PCN GMs; gradual integrators which use an HCN GM first but change to PCN GMs gradually; and gradual localizers which

employ a PCN GM initially but change to HCN GMs in the later stage. The implication of these patterns is that effective succession decision making needs to consider the path-dependent nature of successions.

Successions and Subsidiary Performance

The data reveal that GM successions will not only greatly influence subsidiary performance, but also the survival of the subsidiary. The nature of the effect, however, can be both adaptive and negative. While some informants viewed the continual GM change as a failure trap, or experienced the closure of the subsidiary after many successions, there are also some succession-adaptation cases in our data. For example, one subsidiary GM successor not only increased the sales volume three-fold relative to that of his predecessor, he even managed to enhance the company's profitability during the pandemic. However, the succession-adaptation link was not salient at the outset, as he spent the first one and half years of his tenure getting familiar with the subsidiary and the business environment.

Tenure of Subsidiary GM Successor and Subsidiary Performance

The maximum validity of work permits or intra-company transfer visa seems to play a less important role here, as many PCN GMs' tenure in our sample can reach to over 10 years. There are also localized expatriates (Tharenou & Harvey, 2006). But our data include contrasting views on the effect of the subsidiary GM successor's tenure. Some informants believe that the subsidiary GM successor should be given enough time to learn. For them, patience is a virtue (Levitt & March, 1988). But others emphasized the negative impact of a long tenure, such as inertia, fraud, and loss of passion.

In sum, what emerged out of our interview data are two overarching themes: the knowledge about successions; and the knowledge held by the subsidiary GM predecessors and successors. Both are path-dependent and evolve over time. To systematically investigate the inherent links between the foregoing coexisting logics, therefore, we adopt a knowledge-based view of the MNE. Next, we move to the second stage of the study and ground our work in an IB theory that informs knowledge transfer and creation.

STAGE 2: EVOLUTIONARY THEORY AND HYPOTHESIS DEVELOPMENT

Evolutionary Theory

According to the evolutionary theory of the MNE (Kogut & Zander, 1993), MNEs are viewed as a

value maximizing social community that serves as an efficient mechanism for knowledge creation, internal transfer, and recombination. This core theoretical underpinning suggests that there is a potential to adapt the deceleration model as well as the succession–adaptation model into the MNE context, because the knowledge creation aspect implies the possibility of routine refinement.

However, the knowledge transfer aspect in this line of inquiry seems to suggest the opposite. Routinization through knowledge codification can lead to a repetitive momentum such that internal knowledge transfers will encourage more internal knowledge transfers (e.g., Kogut & Zander, 2003). But often times the knowledge transferred to the host country has been found to be inappropriate (Zander & Kogut, 1995). In effect, suboptimal knowledge transfer persists in many organizational practices (Kogut & Zander, 1996). As the value of such repetitive momentum primarily lies in the economizing on bounded rationality, the inertial qualities of routines (Nelson & Winter, 1982) are prevalent in this tradition. We extend this theoretical framing by arguing that prior knowledge, once translated into routines, can not only facilitate knowledge transfer across subsidiaries within an MNE, but can also facilitate future knowledge application within the subsidiary. Thus, if developing routines can mitigate bounded rationality problems in a *spatial* sense (Kano & Verbeke, 2019), we may presumably see the same effect of routines in a *temporal* sense. This implies that the logic of evolutionary theory can also incorporate the acceleration model as well as the succession–disruption model.

Meanwhile, it is important to note that the development of a path, along which routine is emerging, is embedded and connected with other developments (Sydow et al., 2009). Therefore, after exploring the knowledge creation and transfer activities that influence the forgoing momentum of successions, we will look at the knowledge recombination possibilities that GM successions can detail. Specifically, we consider the knowledge carried by GM predecessors and successors, an organic recombination of which will have strategic value. Through knowledge recombination, MNEs evolve (Kogut & Zander, 1996). Indeed, the value of the existing knowledge base in the MNE can be enhanced by recombining it with location-specific factors in the host country (Verbeke, 2003). However, as we argue, there is also a sequencing logic underlying the recombination, which is crucial but remains unexplored.

The Number of Subsidiary GM Successions and Subsequent GM succession

Subsidiary GMs are at the forefront of many international management challenges (Meyer et al., 2020). The strategic importance of and challenges imposed on the GM role may also render GM succession a difficult task to manage. But if the management of MNEs can *correctly* draw lessons from past succession experiences in the focal subsidiary, they will be better able to maintain or modify search and attention rules, and refine aspirations about the availability of human capital and the needed capabilities of the candidates (Beck et al., 2008). As a result, the management of MNEs would be better able to find a GM whose skills would be a satisfactory match with the needs of the subsidiary. Thus, the need to change subsidiary GMs again declines. In this regard, continual subsidiary GM change can usefully be viewed as a knowledge creation process (Balogun & Jenkins, 2003).

As already pointed out, to enable the refinement of succession routines requires an environment where information is rich and available, and feedback is prompt and non-random. Given that the environments facing MNEs are complex (Cooke et al., 2019; Kostova, Roth, & Dacin, 2008) and the relationships between an MNE and its subsidiaries are characterized by separation through time, space, culture, and language (Ambos & Ambos, 2009), it follows that bounded-rational senior MNE managers will not be able to *always* attend to all GM changes in their subsidiaries. When there are no succession routines specific to that subsidiary in place yet, senior MNE managers might have to pay more attention to the choice of the subsidiary GM. In this stage, new routines are selected and carried out in a trial-and - error manner until a good enough solution is found (Rerup & Feldman, 2011). The new routine creation process can be viewed as a form of higher-level learning (Saka-Helmhout, 2010) because new beginnings are powerful incentives to establish or change the way work is accomplished (Feldman, 2000), and because in the beginning the path formation process is flexible (Sydow et al., 2009). When senior MNE managers attend to the details of the situation, the performative aspect of routines will prevail (Feldman & Pentland, 2003). Thus, we argue that MNE managers are more likely to materially refine succession routines based on the first few successions, which in turn will decelerate the momentum for further subsidiary GM succession events.

But there are also contexts that enhance self-reinforcing dynamics (Sydow et al., 2009). For instance, if the means-end relationships are ambiguous or the senior MNE managers only pay limited attention to such relationships, correctly drawing lessons from past succession activities will be challenging. We argue that this may occur when MNE managers gradually encode the subsidiary GM succession practices over time into processes and documents of succession planning and implementation by succession staff (Friedman, 2017) or a standing board committee (Dimma, 1999), as a means of economizing on the bounded rationality and costs of change. The routinization may also result in the concrete performance goals of GMs in a specific subsidiary (Tahvanainen, 2000). The codified processes, goals, documents and other artifacts can then bring about an overarching action pattern, or in Feldman and Pentland's (2003) term, "an ostensive form of routines" to guide future subsidiary GM change. From then on, it can be argued that a lower-level learning (Saka-Helmhout, 2010) will tend to prevail, where routines will render the GM change easier (Ocasio, 1999).

Indeed, routinization can increase the competence in making specific kinds of changes, which in turn reduce the marginal costs of making these changes (Amburgey et al., 1993). Chung and Beamish (2010) argued that the reduction in marginal costs will result in two things. First, it will make changes with fewer benefits more attractive. Second, it will increase the likelihood that further, similar changes will be repeatedly enacted. But routinization as such has an inherent problem. That is, tacit knowledge is context specific (Balogun & Jenkins, 2003) and some of it is not amenable to systematic codification (Forsgren, 2017; Kogut & Zander, 1992). Thus, the established succession routines may become less likely to accommodate the current situations. Instead, self-reinforcing dynamics may lead to increasing simplicity (Sydow et al., 2009). As a consequence, changing a subsidiary GM may ultimately become an easier decision to make, but at the same time a less effective means of realigning the subsidiary with the environment and the MNE. As unsuccessful changes can lead to failure traps, in which failure leads to change, which leads to failure, which leads to change again (Levinthal & March, 1993), it follows that an accelerated pace of change may ultimately arise. We thus hypothesize:

Hypothesis 1: *The number of GM successions in the foreign subsidiary shows a curvilinear*

association (U-shape) with the probability of subsequent GM succession.

The Number of Subsidiary GM Successions and Subsidiary Performance

Along with the change of the role of succession routines, the consequences of succession activities may also change from functional, implied by the deceleration model, to dysfunctional, implied by the acceleration model. On this basis, we argue that GM successions can improve subsidiary performance when the number of GM successions is kept low, as they allow the MNE to find the appropriate candidate to improve the subsidiary's adaptability over time. Moreover, the decelerated momentum for further change can also offer the new GM the opportunity to incrementally learn suitable ways to "do things here" (Rowe et al., 2005). Therefore, reducing the number of changes is "often an aid to comprehension" (Levitt & March, 1988) not only to the senior MNE managers who make succession decisions but also to the newly appointed subsidiary GM who needs time to learn in order to achieve strategic renewal. This is critical because knowledge dispersion, as a basic attribute of MNEs (Tippmann, Scott, & Mangematin, 2012), may render the time compression diseconomies a much more serious problem to managers in MNEs than to managers in a domestic setting.

In contrast, too many GM successions can lead to failure traps as previously mentioned. It may accelerate the momentum for further change, which then indicates that the time between changes will become increasingly short for GMs to process information (Hale, Ployhart, & Shepherd, 2016; Kunisch, Bartunek, Mueller, & Huy, 2017). As a result, information overload and ineffective decision making may ensue (Klarner & Raisch, 2013). Moreover, given paucity of time, it is likely that there exists information asymmetry between the firm and the candidate, which may further lead to a less-than-optimal selection (Zhang, 2008). Consequently, using such a candidate might be detrimental to the adaptability of the organization. Taken together, we thus follow Klarner and Raisch (2013) to conceptualize a curvilinear relationship such that continual subsidiary GM change is beneficial at first but will become detrimental to the subsidiary performance from a threshold onward. Formally,

Hypothesis 2: *The number of GM successions in the foreign subsidiary will have a curvilinear association (inverted U-shape) with the subsidiary performance.*

The Number of Subsidiary GM Successions and Subsidiary Survival

As it takes time to transfer learning from individuals to the organization (Crossan, Lane, & White, 1999), too many GM succession events may render effective actions initiated by new subsidiary GMs difficult to integrate and institutionalize as formal rules, procedures or routines. Consequently, the larger part of the firm may remain the same while CEO changes become more frequent (Elosge, Oesterle, Stein, & Hattula, 2018). More importantly, too many changes can cause a flux in coordination (Hale et al., 2016). Here, we define flux as "an unstable, unbalanced, or changing pattern of interaction in a collective" (Summers, Humphrey, & Ferris, 2012: 315). The flux may take the form of short-term shocks which, through the creation of new routines, can decline over time. But forming new routines can be costly and time-consuming (Klarner & Raisch, 2013). Therefore, given too many GM changes, the short-term shocks that arise from each implementation of GM succession will be less likely to decline. Following the logic of Chung and Beamish (2010), one possible consequence is that these short-term shocks will accumulate and ultimately translate into higher likelihood of foreign subsidiary exit. Therefore:

Hypothesis 3: *The more frequently GM successions have occurred in the foreign subsidiary, the higher the likelihood of subsidiary exit.*

The Pattern of Subsidiary GM Successions and Subsidiary Survival

Tarique et al. (2006) argue that PCNs may know more about the MNE's culture, and thereby can more effectively facilitate communication with the headquarters and align the subsidiary's operations with the interests of MNE headquarters. They are "value-seeking" connectors, distilling core knowledge to the subsidiary (Hébert, Very, & Beamish, 2005). In contrast, HCNs are viewed as being more familiar with the host-country environment, and hence more effective in localizing the subsidiary's operations (Gupta & Govindarajan, 1991). Based on these insights, we would anticipate that continued use of PCN GMs can facilitate knowledge transfer to the focal subsidiary, and strengthen knowledge exploitation. Yet it may discount the advantage of localization over time (Bebenroth & Froese, 2020). Continued use of HCN GMs, on the other hand, can help the subsidiary to localize the operation, but it may limit the

subsidiary's capability to fully exploit the MNEs' firm specific advantages (FSAs).

Thus, to capture the upside potential of each staffing strategy, MNEs may design their succession strategies along two distinct trajectories: gradual localization or gradual integration, as we observed. This is in line with evolutionary theory, which highlights that the knowledge transfer process within an MNE is itself a learning process in which the MNE's existing knowledge base is combined with (host country) location specific factors, as one illustration of MNE's combinative capability (Verbeke, 2003). Although some non-location bound FSAs can be transferred to the host country market by PCN GMs, without accessing complementary resources in the host country or without country specific advantages (CSAs), it is less likely that FSA exploitation leads to superior performance (Rugman, Verbeke, & Nguyen, 2011). We argue that although both paths appear to be capable of realizing the knowledge recombination goal, they are not *equifinal*. There are several reasons for this.

Because the history of a firm's strategic moves will affect the operational effectiveness of their subsequent moves (Tan & Mahoney, 2005), we anticipate that the initial conditions established by the PCN GM at subsidiary founding can work as a blueprint that guides subsequent actions. Collectively these factors constitute, in Bartlett and Ghoshal's (1987) terms, the subsidiary's administrative heritage. As such, our argument parallels research on the dynamics of expatriate deployment (Riaz et al., 2014), which suggests that a higher proportion of expatriates deployed at subsidiary founding can enable knowledge transfer, coordination, and control between the subsidiary and the parent MNE (Belderbos & Heijltjes, 2005). The initial personnel decisions will then "provide the trigger for the path-building process by developing an organization's combination of resources and capabilities" (Riaz et al., 2014: 2). Thus, we concur that deploying PCN GMs at subsidiary founding suggests a high level of administrative capacities available for knowledge transfer, control, and coordination (Sekiguchi, Bebenroth, & Li, 2011).

Administrative heritage can endure long after any structural change has been made and over time the employees in the subsidiary will become socialized to the point where PCN GM control is less needed (Welch, 1994). Thus, we suggest that for gradual localizers, the close coordination between the subsidiary

and the MNE and between the subsidiary and its peers can be sustained after the PCN GM's departure. As a result, along with the improvement of the subsidiary's local embeddedness facilitated by the HCN GM successor, the MNE can still leverage the administrative heritage built by the PCN predecessor to transfer knowledge, and maintain coordination. This succession pattern, therefore, may allow the subsidiary to simultaneously gain acceptance from the external environment in the local host country and acceptance from the MNE, both of which are needed for subsidiary survival (Kostova & Zaheer, 1999). As this is an effective way to develop MNEs into a harmonious social community (Kogut & Zander, 1996), we see gradual localization as a value maximization path.

We argue that this might not be the case with gradual integrators. Prior studies argued that using HCN GMs at subsidiary founding may reduce the subsidiary's risks in a new environment (Delios & Björkman, 2000), thus offering a cost-minimization governance mechanism. Accordingly, we view this succession pattern as a cost-minimization path. However, the critical distinction made by the evolutionary perspective is that the primary competitive advantage an MNE can bring to the host country is its possession of superior knowledge (Kogut & Zander, 2003). Here, value creation, not cost efficiency, is the core element (Forsgren, 2017). Employing an HCN GM at subsidiary founding, however, will be less likely to enable the subsidiary to fully take advantage of the MNE's superior knowledge during the HCN GM's tenure. Moreover, there are also enduring problems after the HCN GM's departure, as PCN successors who replace a HCN GM may encounter subtle and overt resistance by middle and lower HCN managers of the subsidiary (Bebenroth & Froese, 2020). The rationale is that the "glass-ceiling" may reduce morale and commitment among these managers (Hitotsuyanagi-Hansel, Froese, & Pak, 2016), leading to identity-based discordance (Kano & Verbeke, 2019). For gradual integrators, we thereby argue that the dynamic adjustment costs incurred when hiring a new manager will disrupt current operations (Tan & Mahoney, 2005), to a greater extent than other patterns of succession. This will potentially temper the knowledge transfer benefit that the PCN successors can bring to the subsidiary. We thus hypothesize:

Hypothesis 4: *The exit likelihood of gradual localizers is lower than that of subsidiaries following other patterns of subsidiary GM succession.*

QUANTITATIVE HYPOTHESIS TESTING

Data

We use the Toyo Keizai NEEDS Merged Database (1991–2013) to quantitively test our hypotheses. Toyo Keizai's overseas Japanese companies' database is the largest database in Japan about Japanese companies' overseas expansion. It is based on an annual questionnaire survey that Toyo Keizai has carried out for 40 years. Hundreds of prior studies have been published using this database (e.g., Dhanaraj & Beamish, 2004). We restrict our attention to subsidiaries in which there is no change in parent firm and have only one Japanese parent throughout their development. We do so in order to maintain the consistency of data and to control for influence due to conflicts within Japanese parent firms. To ensure this study identifies the full process of MNE evolution and the tenure of subsidiary GMs is measured correctly, we exclude subsidiaries which were established two years or more before they were first recorded in the dataset. Further, consistent with the standard proposed by Chakravarty et al. (2017), the longitudinal analysis excludes subsidiaries with fewer than nine employees so as to ensure the sample does not include small representative offices or agencies.

Variables

Dependent variable. We use the same method as Beck et al. (2008) to trace the managerial succession events at each observation. We use a binary variable, *Successions*, to denote the change in subsidiary GMs; 1 refers to the observation that a subsidiary GM succession occurs, and 0 means otherwise. Samples at the end of the observation period are viewed as censored data.

With respect to the consequences of subsidiary GM successions, in the Toyo Keizai database, there is a categorical variable representing the annual assessment of the subsidiary's financial performance, which is argued to be an appropriate measure (Delios & Beamish, 2001). However, as the measure has ordinal but not ratio-scaled properties (Dhanaraj, 2000), we recode this profit measure into a binary variable termed *Profitability*, where 1 refers to high performance, and 0 means otherwise.

Consistent with previous research (Delios & Beamish, 2001), a subsidiary that ceased to appear in a particular year's directory after being listed continuously for years, is regarded as an exit from the market.

We use a dummy variable *Exit* to refer to a subsidiary's cessation of operation. Following Lu and Xu (2006), 0 is a subsidiary that remains in the market in a year, and 1 is a subsidiary that exits in that year.

Independent variables. *Prior Change* denotes a subsidiary's total number of managerial succession events up to the observation year. We use 0 to denote a subsidiary that has never changed their GM, 1 for a subsidiary where only one subsidiary GM in previous years is not the same as the incumbent, 2 for a subsidiary where the GM successions have occurred twice, and so forth. We use the quadratic term of *Prior Change* to control for the non-linear effects of prior succession events on subsequent GM change.

We use the subsidiary GM's name to check for *PCN* identification (Bebenroth & Froese, 2020). On this basis, we create a categorical variable to measure the patterns of subsidiary GM changes: *Constant Localizers* are subsidiaries that keep employing HCN GMs; *Constant Integrators* only staff PCN GMs*; Gradual Integrators* use an HCN GM at subsidiary founding, but change to PCN GMs gradually; and *Gradual Localizers* employ a PCN GM at subsidiary founding, but change to HCN GMs in the later stage. This variable is only used in performance and survival models.

Control variables in the succession antecedent model. First, following Beck et al. (2008), *Tenure* is the logarithm of the total number of years the subsidiary GM has been in office. Once a subsidiary appoints a new GM, it resets the tenure clock.

Second, as larger organizations may experience more succession occasions than smaller firms (Kesner & Sebora, 1994), we control for *Subsidiary Size*, which corresponds to the number of subsidiary employees. As log-transformation cannot be applied to zero values, we take the square root of this variable to reduce right skewness. We also control for the MNE size. Following Lu and Beamish (2001), we view an organization as a *Large MNE* if it has more than 500 employees.

Third, we control for the logarithm of *Subsidiary Age*, because older organizations might be less likely to engage in change (Mitsuhashi & Greve, 2004). We then use the quadratic term of *Subsidiary Age* to control for the non-linear effects of firm age on GM change.

Fourth, following Beck et al. (2008), we control for the performance of the subsidiary, as poor performance will likely lead to the change of GMs (Boeker, 1992; Kesner & Sebora, 1994). Also, because

Frazee (1998) argued that with a local partner one may have a better chance of making the right GM choice in the beginning, we control for the ownership structure of the subsidiary. *Entry Mode* is a categorical variable denoting a firm's mode of entry.

To further account for the effect of host-country attractiveness on the likelihood of subsidiary GM turnover, we utilize *GDP Growth* data from World Bank National Accounts data and OECD National Accounts data files (World Bank, 2019). For the same reason, we use *Unemployment Ratio* data from the International Labour Organization's ILOSTAT database and *Human Capital Index* data from the Penn World Table (Feenstra, Inklaar, & Timmer., 2015).

We also account for the effect of competition in the host country on the likelihood of subsidiary GM change. *Competitors* is a variable referring to the number of country-of-origin competitors (with different parent firms) in the host country where the focal subsidiary operates. Relatedly, we also control for the inflow of foreign direct investment (FDI).

Meanwhile, we use a variable called *Expatriate Ratio* to represent the expatriate ratio in the focal subsidiary. This variable is used to control for the MNE's ability to find a GM candidate from within the subsidiary, which then potentially affect the probability of further GM change in the focal subsidiary. Also, because many PCN GMs are expatriates (Harvey & Moeller, 2009), who may have a pre-specified length of stay abroad, we control for the effect of the *PCN* identification on the change of the incumbent GM.

We use a categorical variable called *Strategic Motives*, coded into a series of dummy variables, to account for the heterogeneous impact of FDI motives on the change probability of subsidiary GMs.

Finally, we control for the period from *Year* 1991 to 2013. This variable is coded into a series of dummy variables to partial out the influence of aggregate time series trends on subsidiary GM succession.

Control variables in the succession consequence model. We use *Subsidiary Age* to account for the effect of subsidiary's stage of development on its performance and survival probability (Josefy, Harrison, Sirmon, & Carnes, 2017). We use the quadratic term of *Subsidiary Age* to account for the nonlinear effects of firm age on firm performance and survival.

Second, we control for the *Tenure* of the subsidiary manager, as long-tenured CEOs are found to be less likely to achieve the match between their organizations and the environment (Miller, 1991).

Third, consistent with prior research on subsidiary performance (e.g., Dhanaraj & Beamish, 2004; Makino, Chan, Isobe, & Beamish, 2007), we control for the size of the subsidiary and the MNE. Meanwhile, given the mode of entry may influence the stability and performance of the subsidiary (Dhanaraj & Beamish, 2004; Murray, Ju, & Gao, 2012), we also control for *Entry Mode*.

Following the approach of Chung and Beamish (2010), we account for the macro-level host country variables such as the human resource development, the labor market environment, and the economic environment by including *Unemployment Ratio, GDP Growth*, and *Human Capital Index*. Also, we account for the impact of host country competitions by including *FDI inflows* and *Competitors*.

Finally, a series of *Year* dummy variables are used to partial out time-specific effects on firm performance and survival, and a series of *Strategic Motives* are used to account for the impact of FDI motives on firm performance and survival. The following descriptive statistics in Table 2 show the characteristics of these variables.

Insert Table 2 about here

Model

In line with Beck et al. (2008), we do not assume that recurrence times within each subsidiary are independent. To control for firm heterogeneity in the propensity to change, this study employs fixed-effects logit regression to explore the antecedents of subsidiary GM succession. Also, to control for the unobserved firm-specific variance in order to get consistent estimators, this study employs fixed-effects logit regression to explore the performance consequences of continual subsidiary GM change. We then use a random-effects model to test the robustness of the result and add time-invariant variables. Finally, with respect to the relationship between subsidiary survival and subsidiary GM succession, to calculate the continuous-time hazard rate, we apply a discrete-time event history model (Stern, Dukerich, & Zajac, 2014).

RESULTS AND ROBUSTNESS CHECK

Models 1 to 3 in Table 3 examine the antecedents of subsidiary GM successions.

Insert Table 3 about here

In Model 1, the coefficient of *Prior Change* is negative (Beta = -3.67) and highly significant (p-value < 0.001), supporting the deceleration argument that prior GM successions in the focal subsidiary reduce the likelihood of subsequent succession. Also, we found that the coefficient of the quadratic term (i.e., *Prior Change Squared*) is positive and highly significant with a p-value below 0.001. This lends strong support to the argument that from a threshold onward, prior subsidiary GM successions in the focal subsidiary operations will increase the likelihood of subsequent succession in the subsidiary, accelerating the momentum for further change. Taken together, Hypothesis 1 is supported. Figure 1 plots the fitted values of the predicted probabilities of GM successions.

Insert Figure 1 about here

Considering the effect of contextual hassles on the GM's well-being and thus location choice, we obtained the hassle factor data from the panel data-set developed by Schotter and Beamish (2013). In Model 2, we removed the observations where the hassle score is one standard deviation above the mean. Also, as different countries may impose different intra-company transfer (ICT) visa requirements on expatriates, thus affecting the hypothesized link we formulated, Model 3 removed observations in host countries where the validity of an ICT visa is less than five years and not extendable. Results in these subsample analyses remained consistent with the findings in Model 1.

Models 4 to 5 examine the performance consequence of subsidiary GM successions, and Model 6 tests the effects of subsidiary changes on the likelihood of subsidiary exit. Table 4 reports the results.

Insert Table 4 about here

In Models 4 and 5, we found that the coefficient of *Prior Change* is positive and significant (p-

value < 0.05) while its quadratic term is negative and highly significant (p-value < 0.01). This pattern supports Hypothesis 2. Meanwhile, the positive (Beta = 0.20) and significant (p-value = 0.02) coefficient of *Prior Change* in Model 6 lends a strong support to Hypothesis 3. In this case, by calculating the hazard ratio, we found that the odds of subsidiary exit with every GM change will increase by a factor of 1.21.

With respect to the strategic value of succession patterns, we found that the coefficient of *Gradual Localizers* is negative (Beta = -1.08) and significant (p-value < 0.05) in Model 6, lending support to Hypothesis 4 that the exit likelihood of gradual localizers is lower than that of subsidiaries adopting other patterns of subsidiary GM changes. Specifically, a hazard ratio analysis shows that there is a 63% decrease in the odds of subsidiary exit with this specific succession pattern.

DISCUSSION AND CONCLUSION

Our analysis showed that the evolutionary perspective can be usefully extended to the subsidiary GM's value creation potential through a focus on the GM succession dynamics. We therefore extend the extant research on foreign subsidiary GM staffing (e.g., Harzing, 2001; Peng & Beamish, 2007; Schotter & Beamish, 2011b) towards a dynamic perspective. Concurrently, we also bring to the fore the parenting role of MNEs, which seems more or less absent in evolutionary theory (Forsgren, 2017; Foss & Pedersen, 2019), thus further enhancing evolutionary theory's relevance to practice.

We address two theoretical inconsistencies in current succession research and bring to light the intrinsic compatibility among them. The results showed that as decision makers in MNEs accumulate succession experience within a subsidiary, the probability of further GM change decreases. This empirically confirms that MNEs are adaptive and learning institutions, where changes initiate learning (Balogun & Jenkins, 2003) and (higher-level) learning in turn reduces the need for further changes (Cook & Yanow, 1993). But at the same time, the findings also showed the dynamic nature of learning within MNEs. As prior change within a subsidiary concurrently reduces the marginal costs of making similar change decisions, organizational learning can shift from higher-level to lower-level. As a result, the momentum for further change will be accelerated.

Meanwhile, our analysis links organizational learning and strategy research (Crossan & Berdrow,

2003) and provides a step forward in resolving the succession adaptation-disruption paradox. On one hand, the results demonstrated that replicating a behavioral pattern can damage the organization in the future (Sydow et al., 2009) and continual GM change has a disruptive nature (Schepker et al., 2017). But we do not take an overly-negative stance here. Instead, the longitudinal analysis showed that there exists a middle ground where inertia is countered and learning is sustained.

The results also highlighted the importance of succession patterns. The findings revealed that the localization of an integrated subsidiary and the integration of a localized subsidiary are not equifinal. Our theory is that the administrative heritage formed at subsidiary founding can be either a great asset or a significant liability, depending on the initial subsidiary GM staffing decision and subsequent adjustments. In so doing, the analysis can extend the work of Hébert et al. (2005) by furthering the contingency thinking on "when" using PCN managers can enhance subsidiary survival.

Managerial Implications

This study has several ramifications for practitioners. In an era when the risk of selecting the wrong candidate is greater than any time in the past (Donatiello, Larcker, & Tayan, 2018), overly relying on GM succession routines, though enabling MNE managers to economize on the costs of change, can be problematic. They may ultimately lock the focal subsidiary into a continual GM change process. MNEs thus need to know when associated problems will outweigh the benefits of relying on succession routines.

Understanding the succession momentum issue is crucial, as continual GM change can harm subsidiary performance and reduce the likelihood of subsidiary survival. To avoid the downside risk and capture the upside potential of successions, there are two possible solutions: keeping the number of succession events in the focal subsidiary low; or, following the gradual localization trajectory.

Limitations and Future Research Opportunities

This study is not without limitations. First, due to the COVID-19 pandemic, we were not able to conduct close-up field observations or to participate in management meetings on site. Future research may apply more refined and contextualized qualitative research methods to depict a fuller picture of succession decision making. Meanwhile, to continue with this line of inquiry quantitively, we suggest that

researchers could test how other contingencies moderate the factors underlying our conceptualization. Contingent factors, for example, might include the subsidiary GM's turnover reason, time horizon, entrepreneurial leadership, managerial discretion, and compatibility (e.g., Chen & Hambrick, 2012; Georgakakis & Ruigrok, 2017; Juravich, Salaga, & Babiak, 2017; Sarabi, Froese, Chng, & Meyer, 2020). All of these are useful to address the limit of coarse-grained individual characteristics such as nationality which we used here in our quantitative inquiry (Meyer et al., 2020).

Second, this study assumes that exit from a foreign market is a manifestation of firm instability, as exit usually indicates a failure in achieving management's original goal for the business (Murray et al., 2012), where almost 90% of exits are unplanned (Makino et al., 2007). In some cases, however, non-survival does not indicate failure (Mata & Portugal, 2015). Therefore, it would be fruitful for future studies on this topic to investigate the micro-foundations underlying exit and failure.

Finally, the large-sample quantitative analysis only focused on a single home country, Japan. Similar to previous studies (Delios & Makino, 2003), the use of a single-nation sample may limit the generalizability of the findings. As a country with one of the oldest populations in the world, Japan is struggling with its ability to find sufficient numbers of expatriates (Beamish & Inkpen, 1998; Briscoe, Schuler, & Claus, 2009). Also, for some Japanese employees, the intended length of stay abroad can be longer than most expatriates stay abroad (McNulty & Brewster, 2017). This implies that the influence of previous GM successions may not be as strongly manifest as otherwise expected in the change of incumbent GMs.

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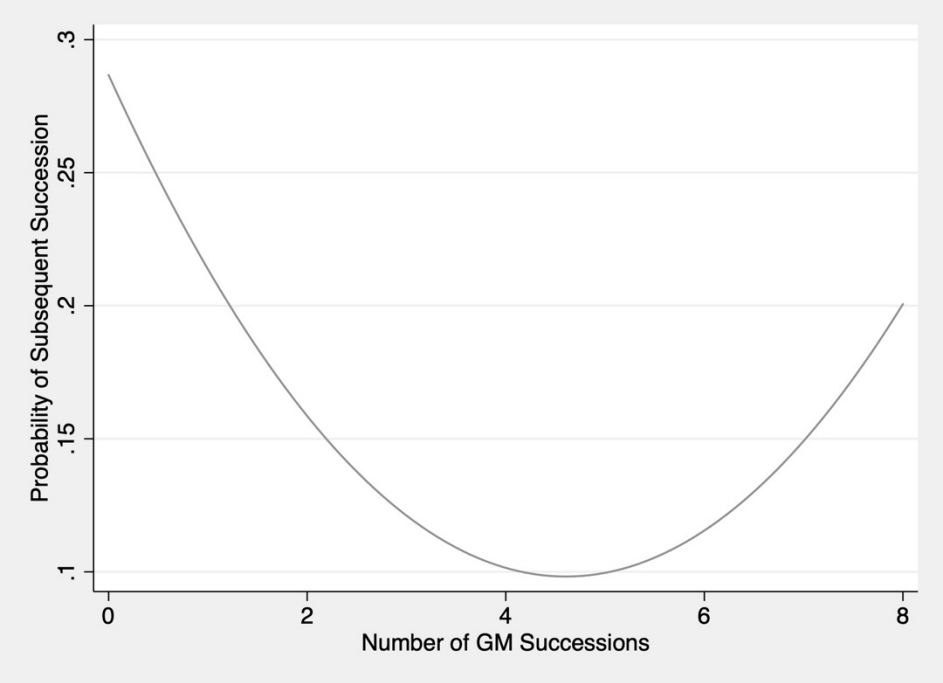

Figure 1: Curvilinear Association Between GM Successions and Subsequent Succession

Table 1

Summary of the Interviews Conducted and Respondent Characteristics

Respondent Type	Number of Interviews	Number of Respondent Nationalities	Number of Industries	Mean Interview Length (Minutes)
Directors	3(1)	3	3	69
Regional CEOs	6(1)	2	2	64
Subsidiary GMs	9(2)	3	4	71
HR Managers	2	1	2	59
Sales Managers	4(2)	1	4	43
CFOs	2(1)	1	2	60
PR Managers	3(1)	1	1	56
Other functions	7	2	6	62
Global Leadership Experts	1	1	1	60

Note: The follow-on interviews are shown in parentheses; The full list of quotes is available upon request

Table 2: Descriptive Statistics

	Mean	S.D.	1	2	3	4	5	6	7	8	9
1.Successions	0.25	0.43	1.00								
2.Profitability	0.58	0.49	0.00	1.00							
3.Subsidiary Exit	0.06	0.23	na[a]	-0.05	1.00						
4.Prior Change	1.20	1.48	0.09	0.11	0.02	1.00					
5.Change Pattern (1=constant integrator, 2=constant localizer, 3=gradual localizer, 4=gradual integrator)	1.71	1.05	0.03	-0.01	-0.02	0.12	1.00				
6.Entry Mode (1=WOS, 2=majority owned IJV, 3=equally owned IJV, 4=minority owned IJV)	1.67	1.11	-0.04	0.01	0.04	-0.09	0.23	1.00			
7.Expatriate Ratio (%)	0.12	0.18	0.02	-0.06	-0.04	-0.03	-0.13	-0.22	1.00		
8.Large MNEs	0.77	0.42	0.03	0.07	0.00	0.14	0.06	0.03	-0.06	1.00	
9.Subsidiary Size (sqrt)	9.52	10.28	0.02	0.10	0.00	0.11	0.03	0.07	-0.36	0.20	1.00
10.Tenure (log)	0.91	0.74	0.04	0.08	0.04	-0.15	-0.02	0.04	-0.12	-0.08	0.06
11.Subsidary Age (log)	1.91	0.70	0.07	0.20	0.05	0.64	0.08	-0.04	-0.16	0.06	0.18
12.Competitors (sqrt)	5.10	3.12	0.01	0.03	-0.02	0.03	-0.07	-0.07	-0.07	-0.02	0.18
13.FDI Inflow (10 billion)	8.16	9.68	0.00	-0.01	0.03	0.11	-0.04	-0.13	0.05	-0.02	0.00
14.GDP Growth (%)	5.74	4.10	-0.01	0.02	-0.01	-0.11	-0.03	0.07	-0.12	-0.04	0.09
15.Human Capital Index	2.75	0.54	0.03	-0.02	0.03	0.19	0.06	-0.20	0.20	0.04	-0.16
16.Unemployment (%)	4.88	2.47	0.01	-0.05	0.02	0.02	0.05	-0.13	0.08	0.05	-0.11
17.PCN	0.77	0.42	0.06	-0.01	-0.04	0.09	-0.49	-0.43	0.21	-0.02	-0.03

	10	11	12	13	14	15	16	17
10.Tenure (log)	1.00							
11.Subsidary Age (log)	0.44	1.00						
12.Competitors (sqrt)	0.06	0.06	1.00					
13.FDI Inflow (10 billion)	0.08	0.14	0.45	1.00				
14.GDP Growth (%)	-0.02	-0.14	0.37	0.20	1.00			
15.Human Capital Index	0.05	0.23	-0.16	0.14	-0.57	1.00		
16.Unemployment (%)	-0.01	0.01	-0.19	0.01	-0.33	0.36	1.00	
17.PCN	-0.09	0.01	0.11	0.06	0.03	-0.03	-0.05	1.00

a) When an observation exits, GM Change is viewed as censored data. Therefore, no correlation between Successions and Exit is calculated.

Table 3: Empirical Results for Hypothesis 1

	Model 1 (Full Model)		Model 2 (Low Hassle)		Model 3 (Long ICT)	
Dependent Variable: Successions						
Regressors:						
Prior Change	-3.67***	(0.17)	-3.69***	(0.18)	-3.60***	(0.17)
Prior Change Squared	0.28***	(0.02)	0.29***	(0.02)	0.27***	(0.02)
PCN	0.26	(0.16)	0.26	(0.17)	0.19	(0.16)
WOS			*Reference category*			
Majority Owned IJV	-0.21	(0.25)	-0.05	(0.27)	-0.17	(0.25)
Equally Owned IJV	-0.13	(0.41)	0.06	(0.43)	-0.09	(0.41)
Minority Owned IJV	0.19	(0.34)	0.49	(0.36)	0.22	(0.35)
Expatriate Ratio	0.39	(0.38)	0.69+	(0.40)	0.35	(0.39)
Large MNEs	-0.11	(0.21)	-0.29	(0.23)	-0.07	(0.21)
Subsidiary Size	0.01	(0.01)	0.01	(0.01)	0.01	(0.01)
Tenure	-0.20*	(0.08)	-0.21*	(0.09)	-0.19*	(0.09)
Profitability	-0.12	(0.10)	-0.16	(0.11)	-0.11	(0.10)
Subsidiary Age	0.94	(0.88)	0.28	(0.92)	0.87	(0.88)
Subsidiary Age Squared	1.21*	(0.47)	1.60**	(0.49)	1.20*	(0.47)
Competitors	0.00	(0.04)	-0.01	(0.04)	-0.01	(0.04)
FDI Inflow	0.00	(0.01)	-0.00	(0.01)	0.01	(0.01)
GDP Growth	0.01	(0.01)	0.02	(0.01)	0.01	(0.01)
Human Capital Index	0.73	(0.74)	0.78	(0.76)	1.19	(0.76)
Unemployment	-0.04	(0.04)	-0.04	(0.04)	-0.03	(0.04)
Strategic Motives	Yes		Yes		Yes	
Year Dummies	Yes		Yes		Yes	
Observations	7955		7079		7624	
Number of subsidiaries	1195		1059		1147	
Chi-squared	1508.53		1348.27		1421.42	

Notes: Standard errors in parentheses of coefficients; + p<0.10 * p<0.05 ** p<0.01 *** p<0.001;

Table 4: Empirical Results for Hypotheses 2-4

	Model 4 (Fixed-Effects Logit)		Model 5 (Random-Effects Logit)		Model 6 (Random-Effects Log-Logistic)	
Dependent Variable:	Profitability				Exit	
Prior Change	0.35*	(0.15)	0.36*	(0.17)	0.20*	(0.08)
Prior Change Squared	-0.06**	(0.02)	-0.08**	(0.03)		
WOS	*Reference category*					
Majority Owned IJV	0.18	(0.28)	-0.02	(0.24)	0.30+	(0.16)
Equally Owned IJV	-0.14	(0.46)	-0.15	(0.35)	0.05	(0.30)
Minority Owned IJV	0.19	(0.36)	0.14	(0.24)	0.44	(0.40)
Expatriate Ratio	-1.01*	(0.44)	-0.47	(0.43)	-0.25	(0.55)
Large MNEs	-0.14	(0.20)	0.14	(0.17)	-0.31	(0.21)
Subsidiary Size	0.09***	(0.01)	0.06***	(0.01)	-0.01	(0.01)
Tenure	0.11	(0.09)	0.09	(0.11)	0.26	(0.18)
Subsidiary Age	1.02	(0.72)	3.68***	(0.68)	1.20	(0.82)
Subsidiary Age Squared	0.73+	(0.40)	-0.68***	(0.19)	-0.32	(0.34)
Competitors	-0.06	(0.04)	-0.02	(0.03)	-0.04+	(0.02)
FDI Inflow	0.02**	(0.01)	0.01	(0.01)	0.02*	(0.01)
GDP Growth	0.02	(0.01)	0.01	(0.01)	0.02	(0.02)
Human Capital Index	0.01	(0.72)	-0.25	(0.19)	0.16	(0.15)
Unemployment	0.00	(0.04)	-0.04	(0.03)	0.01	(0.03)
Profitability					-0.56**	(0.21)
Constant Integrator	*Reference category*					
Constant Localizer			0.29	(0.28)	0.31	(0.34)
Gradual Localizer			-0.05	(0.25)	-1.08*	(0.54)
Gradual Integrator			-0.62*	(0.28)	-0.55	(0.45)
Strategic Motives	Yes		Yes		Yes	
Year Dummies	Yes		Yes		Yes	
Observations	5743		12378		12378	
Number of subsidiaries	827		2790		2790	
Chi-squared	627.53		312.83		308.47	

The internationalization and voluntary adoption of international accounting standards by Japanese multinational enterprises

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THE INTERNATIONALIZATION AND VOLUNTARY ADOPTION OF INTERNATIONAL ACCOUNTING STANDARDS BY JAPANESE MULTINATIONAL ENTERPRISES

Abstract

This study investigates the relationship between the degree of a company's internationalization and the voluntary adoption of International Financial Reporting Standards (IFRS) and US Generally Accepted Accounting Practices (GAAP) based on an analysis of Japanese multinational enterprises (MNEs). Our research is based on a unique setting, namely, the co-existence of voluntary IFRS and US GAAP, which began in Japanese corporations after March 2010. We find as follows. First, voluntary IFRS and US GAAP adoption is higher in Japanese MNEs with a higher internationalization degree. Second, greater foreign shareholding of Japanese MNEs would result in voluntary US GAAP adoption rather than that of IFRS. This result implies that foreign shareholders prefer US GAAP adoption over IFRS adoption or Japanese GAAP. Under a semi-globalization perspective, Japanese MNEs tend to have a US region-specific approach. This finding is interpreted as follows: foreign shareholders with shareholder-oriented logics stress the compatibility of financial reporting of MNEs with a US region-specific approach. Our study also provides new insight into international accounting standards of MNEs under stakeholder-oriented corporate governance. Corporate governance deviation, such as US GAAP adoption, is caused by greater presence of foreign shareholders with shareholder-oriented logics.

Keywords: IFRS; Internationalization; MNE; US GAAP; Stakeholder Theory; Semi-Globalization

1. INTRODUCTION

Internationalization is an important factor for the analysis of international convergence in academic research (Aguilera and Jackson 2003). International Financial Reporting Standards (IFRS) have been adopted by many countries, as they are regarded as the set of international global standards that enhance the comparability of financial reporting (Barth, Landsman, Lang, and Williams 2012; Doupnik and Perera 2012; Doupnik and Riccio 2006). In European countries, mandatory IFRS adoption was implemented in 2005. Despite the importance of the issue, there is a lack of theoretical studies on IFRS adoption (Hope 2003).

The corporate governance literature tends to assume that national institutional factors explain firm-level corporate governance practices (Aguilera and Jackson 2003; La Porta, Lopez-de-Silanes, Shleifer, and Vishny 2000). In fact, national-level IFRS adoption depends on different levels of the institutional background (Judge, Li, and Pinsker 2010). Therefore, the adoption of accounting standards has been analyzed for only a limited number of countries (Ball, Robin, and Wu 2003) and generally has not focused on countries with voluntary IFRS adoption (Hope, Jin, and Kang 2006). This study aims to fill this research gap by studying voluntary IFRS adoption in Japan.

The aim of this study is to clarify the logic of adoption choice by Japanese multinational enterprises (MNEs) of IFRS or US Generally Accepted Accounting Principles (US GAAP). MNEs tend to face different corporate governance practices across the countries in which they are engaged (Kostova, Roth, and Dacin 2008). In the process of internationalization, domestic firms have to attract foreign shareholders that possess different national corporate governance logics (Aguilera, Judge, and Terjesen 2018). As a result, at the firm level, MNEs may intentionally deviate from the standard set of corporate governance logics (Aguilera, Judge, and Terjesen 2018). As the global competition for capital has reached record proportions, nations are willing to replace their domestic standards with international standards, like IFRS or US GAAP.

Most developed countries except the United States have adopted IFRS, but Japanese firms have been given the choice of adopting either IFRS or US GAAP since March 2010. One reason for this difference may be due to political conflicts related to mandatory IFRS adoption in Japan in the future (Tsunogaya, Hellmann, and Scagnelli 2015). The other reason is that some Japanese MNEs, like Toyota, tend to adopt US GAAP for capital acquisition in US financial markets. In addition, some MNEs have region-specific scope and place greater weight on stakeholders in the North American region. Thus, Japanese MNEs' decision to adopt IFRS or US GAAP may be affected by their stakeholders, like foreign shareholders, or their foreign subsidiaries.

In this study, we analyze the determinants of voluntary adoption of IFRS or US GAAP in Japanese MNEs. Our empirical findings are summarized as follows. First, voluntary IFRS and US GAAP adoption is higher in firms with a higher internationalization degree. Second, foreign shareholders favor voluntary adoption of US GAAP in Japanese MNEs. Under stakeholder-oriented corporate governance, foreign shareholders have shareholder-oriented logics (Desender, Aguilera, López puertas-Lamy, and Crespi 2016). Thus, foreign shareholders stress the compatibility of financial reporting in Japanese MNEs. Under a US region-specific approach of Japanese MNEs, voluntary adoption of US GAAP is expected to enhance the compatibility of financial reporting that is aligned with the interests of foreign shareholders.

The theoretical contributions of our study are summarized as follows. First, our study examines the firm-level intentional deviation from the standard set of corporate governance logics in the international corporate governance literature (Aguilera, Judge, and Terjesen 2018). From the corporate governance deviation perspectives (Aguilera, Judge, and Terjesen 2018), firm-level intentional deviation from the Japanese domestic accounting system may occur in MNEs with a higher internationalization degree. Second, we aim to reveal how foreign shareholders pressurize Japanese MNEs to adopt either US GAAP or IFRS from a semi-globalization perspective (Arregle, Miller, Hitt, and Beamish 2013). Under a US region-specific approach of Japanese MNEs, the compatibility of financial reporting is higher for MNEs adopting US GAAP than for those adopting IFRS. Under stakeholder-oriented corporate governance,

foreign shareholders have shareholder-oriented logics (Desender, Aguilera, López puertas-Lamy, and Crespi 2016). Therefore, greater presence of foreign shareholders pressurizes Japanese MNEs to adopt US GAAP to enhance the compatibility of financial reporting in MNEs.

The rest of this paper is organized as follows. Section 2 presents our theoretical development and empirical hypotheses. In Section 3, we explain our sample and methodology. Section 4 presents the data analysis and empirical results. We discuss our results in Section 5. Finally, we conclude in Section 6.

2. THEORY AND HYPOTHESIS DEVELOPMENT

2.1. Theoretical Background

The globalization of market forces has progressed to push the corporate governance practices of non-Anglo-American countries toward a model of shareholder-oriented corporate governance (Ahmadjian and Robbins 2005; Seki 2005; Yoshikawa and Gedajlovic 2002). Traditional corporate governance models in these countries are widely diversified (Guillen 2000). One reason for this diversification is that the degree of external pressures is different across countries. The other reason is that each national institutional environment may vary in the extent to which it is based on corporate governance practices (Aoki 2001). These previous studies suggest that changes in corporate governance depend on external and internal forces as well as the interactions among internal forces. Thus, institutional contexts are important for determining the practice of corporate governance change.

Previous literature seeks to explain why and how a corporation tends to adopt corporate governance practice based on corporate governance logic. From the institutional theory perspective, it is important to analyze how macro social institutions influence and shape lower level social activities and organizational behavior (Scott 2001). The institutional environment guides or constrains legitimacy seeking (Aguilera and Jackson 2003). Since accounting information is viewed as legitimate information to be trusted by its

users, it is possible that institutional theory is a useful framework for predicting the adoption of new accounting standards, such as IFRS (Ball, Robin, and Wu 2003).

Our study aims to investigate the voluntary adoption of accounting standards in stakeholder-oriented corporate governance from the corporate governance deviation perspective advocated by Aguilera, Judge, and Terjesen (2018). The governance deviation perspective integrates national-level forces and firm-level socio-cognitive agent behavior to draw on institutional theory. Aguilera, Judge, and Terjesen (2018) suggest that a firm's intentional deviation from a standard is influenced by legitimate practices and normative expectations are prompted by dominant national governance logic.

2.2. Research Context

We seek to understand why and how nation-state institutional logics strongly affect the adoption of new accounting standards. The domestic accounting standards of most industrialized countries have been developed over time. As global competition has progressed, nations have become willing to exchange their domestic standards for more commonly used sets of standards (e.g., IFRS and US GAAP). Emerging economies have tended to adopt IFRS since the mandatory adoption of IFRS in Europe in 2005. This is because the quality of IFRS is superior to the quality of these countries' domestic accounting standards. However, the tendency of earnings management in EU countries has continued in the post-IFRS period (Gray, Kang, Lin, and Tang 2015). Meanwhile, in Asian Pacific countries, the adoption of IFRS is associated with reduced level of earnings management (Wijayana and Gray 2019). These results suggest that nation-state institutional logics matter for the effect on international accounting standards.

The Japanese setting is a unique country-level institutionalized logic involving the voluntary adoption of IFRS or US GAAP. Mandatory adoption of IFRS is not required in Japan or the US. Developed countries whose domestic accounting standards are perceived as high quality may face difficulty in the mandatory adoption of IFRS. In Japan, the Business Accounting Council decided to implement voluntary adoption of IFRS after March 2010 for the consolidated financial statements of listed companies. Since

then, Japanese firms have been able to choose to adopt domestic GAAP or another set of accounting standards, such as IFRS or US GAAP. Therefore, Japanese firms face managerial discretion, such as the voluntary adoption of either IFRS or US GAAP.

Stakeholder-oriented corporate governance logics may affect managerial discretion related to the voluntary adoption of accounting standards. Under stakeholder-oriented governance logic, the goal of the firm is to balance interests among all stakeholders in the firm (Jackson 2005). Japan is known for its stakeholder-oriented corporate governance (Desender, Aguilera, López-puertas-Lamy, and Crespi 2016; Sakawa and Watanabel 2019b; Yoshimori 1995). As Tsunogaya et al. (2015) argue, practitioners insist on a cautious convergence approach to deal with disparities between Japanese Generally Accepted Accounting Principles (Japanese GAAP) and IFRS. Therefore, stakeholder-oriented corporate governance logics might not result in widespread IFRS adoption in Japan.

Our focus is the managerial discretion in accounting standards in internationalized Japanese MNEs. One of the most important strategic decisions of MNEs is their location decision of internationalization (Goerzen and Beamish 2003; Hitt, Hoskisson, and Kim 1997). From a semi-globalization perspective, the prior entry of Japanese MNEs in a country has a positive effect on its future decisions to operate in that country (Arregle, Beamish, and Hebert 2009; Arregle, Miller, Hitt, and Beamish 2013). An MNE's decision to locate to a host country is affected by the dual effects of formal institutions (North 1990; Williamson 2000) at the country level. MNEs consider institutional environments in their decisions about where to locate and how to internationalize under a semi-globalization perspective (Arregle, Miller, Hitt, and Beamish 2013). The difference of accounting standards in host countries may be one of the important regulatory environments that MNEs use to decide whether to internationalize and locate to the country. Furthermore, MNEs may care about the stakeholders in their internationalized location under stakeholder-oriented corporate governance.

2.3. Hypothesis Development

An MNE's internationalization decisions depend on the formal institutions in a region (Arregle, Miller, Hitt, and Beamish 2013). MNEs use region-bound firm-specific advantages across the region when they decide to locate (Rugman and Verbeke 2004). In fact, the adoption of US GAAP by French firms progressed in the 1970s because the global economy at the time was dominated by the US (Touron 2005). Furthermore, the World Bank and the International Monetary Fund (IMF) require the adoption of IFRS in their loan granting policies (Botzem and Dobusch 2012). This suggests that internationalized firms care about external coercive pressures. Thus, MNEs' decisions, like the adoption of international accounting standards, depend on the formal institutions within the expanded region where they operate. Such a semi-globalization perspective of MNEs suggests that Japanese MNEs with many US subsidiaries tend to adopt US GAAP rather than IFRS.

In this situation, Japanese MNEs face two choices—adopt IFRS or US GAAP. Japanese corporate governance is a stakeholder-oriented system (Desender, Aguilera, López-puertas-Lamy, and Crespi 2016). Owing to the international diversification of Japanese MNEs, there may be significant pressures from foreign stakeholders to introduce a single set of accounting standards. Hassan (2008) finds that external coercive pressure from foreign assistance provided by the IMF influenced Egypt's adoption of IFRS standards. This suggests that foreign pressure tends to drive the introduction of IFRS. Thus, we propose the following hypothesis.

> **Hypothesis 1.** International diversified MNEs tend to adopt a single set of accounting standard, like IFRS or US GAAP.

Under a stakeholder-oriented corporate governance logic (Desender, Aguilera, López-puertas-Lamy, and Crespi 2016; Yoshimori 1995), Japanese MNEs intend to align with the interests of various stakeholders, including their internationalized region's shareholders. Under the recent situation of the voluntary adoption of IFRS and US GAAP, Japanese MNEs have the managerial discretion to choose international accounting standards. From a semi-globalization perspective, Japanese MNEs strategically

decide their location (Arregle, Miller, Hitt, and Beamish 2013). Therefore, Japanese MNEs have different accounting standard choices based on their internationalized location's accounting standards.

Foreign shareholders have shareholder-oriented logics under stakeholder-oriented corporate governance (Desender, Aguilera, López-puertas-Lamy, and Crespi 2016). In fact, foreign shareholders would exert disclosure pressure on managers, which decreases information asymmetry in Japanese corporations (Sakawa, Ubukata, and Watanabel 2014). In Asian Pacific countries, the quality of IFRS mitigates the level of earnings management (Wijayana and Gray 2019). Thus, foreign shareholders would favor voluntary IFRS adoption, which would enhance the quality of financial reporting. Thus, we hypothesize as follows.

Hypothesis 2a. Foreign shareholding is positively associated with IFRS adoption in Japanese MNEs.

Internationally diversified Japanese firms tend to place importance on internationalized location in the North American region. After the global financial crisis of 2008, Japanese firms' exports to the US accounted for 6% of all export value to the US (JETRO 2018). This suggests that US stakeholders are an important target of Japanese MNEs. Under a North American region-specific approach, voluntary adoption of US GAAP is expected to enhance the compatibility of financial reporting. Foreign shareholders with shareholder-oriented logics (Desender, Aguilera, López-puertas-Lamy, and Crespi 2016) care about the compatibility of financial reporting. Thus, as an alternative to Hypothesis 2a, we predict that foreign shareholders of Japanese MNEs prefer the company to adopt US GAAP rather than IFRS, as follows.

Hypothesis 2b. Foreign shareholding is positively associated with US GAAP adoption in Japanese MNEs.

3. SAMPLE AND METHODOLOGY

3.1. Sample Selection, Variables, and Methodology

We focus on Japanese non-financial MNEs listed on the Tokyo Stock Exchange from 2010 to 2017 to test our hypotheses. We use financial accounting data, corporate ownership data, and international diversification data. First, we collect financial data and corporate ownership data from the NPM database provided by Data Solution Inc. In addition, we collect data of Japanese firms' internationalization from the annual publication of the Japanese Overseas Investments database provided by Toyo Keizai Inc.

In the sample selection procedure, we exclude financial industry firms, because they are regulated differently to non-financial industry firms. In addition, we exclude samples of industries that have no IFRS or US GAAP adopters[1]. Finally, we exclude samples that do not disclose financial accounting data. Our final sample comprises 7,981 firm-year observations.

3.2. Dependent Variables

To reveal the determinants of the adoption of international accounting standards in Japanese firms, we collect information on the types of financial accounting standards selected (Japanese GAAP, IFRS, or US GAAP) in each year. Hypothesis 1 predicts that international diversification encourages firms to adopt a

[1] Industries without any cases of IFRS adoption are other products; warehousing and harbor transportation; construction; fishery, agriculture, and forestry; marine transportation; air transportation; pulp and paper; textiles and apparels; mining; and electric power and gas. Industries without any cases of US GAAP adoption are glass and ceramics products; rubber products; services; real estate; pharmaceutical; retail trade; oil and coal products; precision instruments; metal products; iron and steel; land transportation; and non-ferrous metals.

single set of accounting standards, like IFRS. Hence, we generate a dummy variable of IFRS adoption, which equals one when firms adopt IFRS, and zero otherwise. We also create a dummy variable for US GAAP adoption, which equals one when firms adopt US GAAP, and zero otherwise. The variable definitions are summarized in Appendix A.

3.3. Independent Variables

To examine the relationship between IFRS adoption and internationalization degree, we adopt three proxies of international diversification to analyze the determinants of adopting IFRS or US GAAP. Following previous studies, (David, O'Brien, Yoshikawa, and Delios 2010; Delios and Beamish 1999; Lu and Beamish 2004), we measure the degree of international diversification proxy variables using the Japanese Overseas Investments database. The first variable is the total number of overseas subsidiaries. The second variable is the total number of countries where a firm has overseas subsidiaries. The third variable is an index of international diversification that combines the first and second variables, following previous studies (David, O'Brien, Yoshikawa, and Delios 2010; Lu and Beamish 2004).

Next, we consider the influence of ownership variables on the voluntary adoption of IFRS in internationalized firms. Financial institutional ownership (*FIN INST*) measures the shares of financial institutions divided by total outstanding shares. Foreign ownership (*FOREIGN*) measures foreign shareholding divided by total outstanding shares. Inside director ownership (*INSIDE*) measures board ownership divided by total outstanding shares.

We control for firm characteristic variables. *SIZE* is defined as the logarithm of total assets. For corporate performance measures, we adopt the return on total assets (*ROA*). *LIQUIDITY* measures cash assets to total assets. We control for financial healthiness (*LEV*), measured as total debt to equity. In addition, *LOANS* is the measure of loans to total assets. *AGE* is the firm age after going public and *LOSS* represents last year's reported loss. *ABS_OPCF* is the absolute value of operating cash flow to lagged

total assets. We adopt the number of geographic segments of the firm (*NOGEOSE*) to control for other internationalization features. *EQU_GRO* is the current year's equity divided by the prior year's equity. *BIG_N* is a dummy variable that equals one if the firm is audited by a Big Four audit firm (i.e., EY, Deloitte, KPMG, or PwC), and zero otherwise.

3.4. Econometric Methodology

This study models the accounting standard adoption using discrete-time event history analysis (Allison 1984). The use of discrete-time analysis allows observation of the same organizations at multiple intervals and pooled time-series data through the estimation of logit models of dichotomous outcomes. Following previous studies, such as Chizema and Shinozawa (2012) and Sanders and Tuschke (2007), we estimate a baseline model of the hazard (i.e., likelihood) of the international accounting standard adoption in any of the observed years. This method allows for covariates to vary between time periods. The estimated model is expressed as the following equation:

$$log\frac{P(Adoption_{j,t})}{1-P(Adoption_{j,t})} = \alpha(t) + \beta_1 Internationalization_{j,t-1} + \beta_2 Internationalization_{j,t-1} * Foreign_{j,t-1} + \sum \gamma_k Control_{j,t-1} + Industry + \varepsilon_{j,t} \ldots (1)$$

where $log\frac{P(Adoption_{j,t})}{1-P(Adoption_{j,t})}$ represents the logarithmic odds that firm *j* will adopt the international accounting system at any point during period *t*; $\alpha(t)$ implies that the likelihood of adopting the international accounting systems varies across time. Two year dummies (pre-2013 and post-2013) are adopted to estimate $\alpha(t)$. All of the independent variables are lagged by 1 year. This method treats the data as quasi-cross-sectional; if a firm adopts the international accounting standard in the starting year of 2010, it contributes 1 firm-year; if it starts at year 2011, it contributes 2 firm-years; and so on. Non-adopting firms contribute as many firm-years as there are in the period of observation. In other words, each of the censored firms contributes a maximum *n* firm-years, where *n* is the longest time interval. This

approach has been used by several studies on the adoption of management practices (Chizema 2010; Chizema and Shinozawa 2012; Sanders and Tuschke 2007).

4. DATA ANALYSIS AND RESULTS

4.1. Descriptive Statistics

We first introduce the year distribution of firms that adopt IFRS, US GAAP, and Japanese GAAP in Table 1. We find that firms with Japanese GAAP adoption decreased whereas firms with IFRS adoption increased to 62 in 2017. In addition, firms with US GAAP adoption gradually decreased from 27 to 15. IFRS adoption progressed in electric appliances, wholesale trade, transportation equipment, and information and communication. These industries tend to be export intensive. Thus, the transparency of accounting standards seems to be demanded by the firms' stakeholders in foreign countries. Meanwhile, many electric appliance firms adopted US GAAP during 2017. This suggests that strong export relations with the US would affect their adoption of US GAAP.

Insert Table 1

Next, we introduce the descriptive statistics and correlation in Table 2. The mean of the number of foreign subsidiaries (*SUB*) is about 10.5, the average of the number of countries that have overseas subsidiaries (*COUNTRY*) is about 5.2, and that of *INT_DIV* is about 0.05. This is consistent with the results of previous studies, which calculate *INT_DIV* of Japanese MNEs to be within the range of 0.04 to 0.07 (David, O'Brien, Yoshikawa, and Delios 2010; Lu and Beamish 2004). As for ownership structure variables, we find that the average of *FIN INST* is 0.22 and that of *FOREIGN* is about 0.19. This is consistent with the recent increase in foreign shareholder presence in Japanese corporations (Desender, Aguilera, Lópezpuertas-Lamy, and Crespi 2016). In addition, inside ownership (*INSIDE*) is 0.05 on average, which is consistent with previous studies (Sakawa, Moriyama, and Watanabel 2012). Moreover, *SIZE* is about 10.9, which is almost the same as in previous studies. The average of *ROA* is about 0.02.

LIQUIDITY is about 0.18 on average, which is a higher level than that in the 1990s (David, O'Brien, Yoshikawa, and Delios 2010). The financial health variable, measured as *LEVERAGE*, is about 9.5 on average, which is a lower level than that in the 1990s (David, O'Brien, Yoshikawa, and Delios 2010). The average *LOAN* is 0.12, the average *ABS_OPCF* is less than 0.1, *NOGEOSE* is 0.07 on average, and *EQU_GRO* is about 1. The mean of *BIGN* is 0.75, indicating that about 75% of firms are audited by a Big Four audit firm, which is the same result as that of previous studies (Sakawa and Watanabel 2019a).

Insert Table 2

Table 2 shows the correlation of each variable. We find that the IFRS adoption dummy and the US GAAP adoption dummy are significantly positive with three proxy measures of internationalization variables. This is consistent with Hypothesis 1. In addition, IFRS adoption and US GAAP adoption are significantly and positively correlated with foreign shareholders. This implies that a higher proportion of foreign shareholders increases the likelihood of adoption of international accounting standards, like IFRS or US GAAP.

4.2. Estimated Results

Table 3 presents the logistic estimation results of the relationship between IFRS adoption and three measures of internationalization. Model 1 contains control variables only. Models 2, 3, and 4 contain control variables plus three types of degree of international diversification proxy variables. In each model, we report the coefficient estimate along with its standard error (in parentheses). We also control for industry in all four models.

Insert Table 3

Starting with control variables, firm size and *ROA* have significant positive effects on the adoption of IFRS. In addition, Big 4 has a significantly positive effect on the adoption of IFRS. Turning to

independent variables, IFRS adoption has progressed in MNEs with a higher degree of internationalization for Models 2,3, and 4. This result supports Hypothesis 1. Meanwhile, foreign shareholders do not have a significant effect on IFRS adoption in all four models. These results do not support Hypothesis 2a. This result implies that IFRS adoption has not necessarily progressed due to pressure from foreign shareholders in Japanese MNEs.

Table 4 describes the logistic estimation results of the relationship between US GAAP adoption and internationalization. Model 1 contains control variables only. Model 2, 3, and 4 contain control variables plus three types of proxy variables for the degree of international diversification. In each model, we report the coefficient estimate along with its standard error (in parentheses). We also control for industry in all four models.

Insert Table 4

As for control variables, firm size and Big 4 have significant positive effects on the adoption of US GAAP. We also find that financial institutional ownership is significantly positively related to US GAAP. This finding implies that financial institutional stockholders prefer US GAAP. Turning to independent variables, US GAAP adoption is positively related to all three measures of internationalization in Models 2, 3, and 4. This result is consistent with Hypothesis 1. As for the ownership variables, we find that foreign ownership is significantly positively related to US GAAP adoption. This supports Hypothesis 2b. Compared with the results of Hypothesis 2a, we find that foreign shareholders favor US GAAP adoption over IFRS for Japanese MNEs. Under shareholder-oriented logics (Desender, Aguilera, López-puertas-Lamy, and Crespi 2016), foreign shareholders stress the compatibility of financial reporting. Japanese MNEs have a region-specific approach to foreign expansion (Arregle, Miller, Hitt, and Beamish 2013). In fact, foreign expansion of Japanese MNEs in the North American region has soared (JETRO 2018). Thus, foreign shareholders would judge that voluntary adoption of US GAAP would enhance the compatibility of financial reporting in Japanese MNEs.

Table 5 presents the logistic regression results of IFRS adoption to focus on the interaction effects between all the independent variables and time dummy pre-2013. Using all six models, we find that IFRS adoption has progressed in MNESs with a higher degree of internationalization. These results support Hypothesis 1. As for Hypothesis 2a, there are insignificant results for all six models. None of the interaction terms achieve statistical significance.

Insert Table 5

Table 6 presents the results of the logistic regression on US GAAP adoption to focus on the interaction effects between all the independent variables and time dummy pre-2013. We include the interaction terms of independent variables and the period pre-2013. In each model, we find that US GAAP adoption is positively associated with the internationalization degree, which is consistent with Hypothesis 1. In all six models, foreign shareholders have a significant and positive effect on US GAAP adoption. Thus, Hypothesis 2b is supported. As for the interaction terms, SUB*Pre-2013 is significantly and positively related to US GAAP adoption.

Insert Table 6

5. DISCUSSION

We analyze the effects of international diversification on the voluntary adoption of international accounting standards, such as IFRS or US GAAP. This study focuses on voluntary international accounting standard adoption of either IFRS or US GAAP under the unique Japanese institutional background. Institutional background affects formal factors, like accounting standard adoption and the incentives of the society (North, 1990). Using this unique setting, we reach the following two conclusions. First, the voluntary adoption of IFRS or US GAAP tends to have progressed in MNEs with higher internationalization. Second, MNEs with greater foreign shareholding tend to have voluntarily adopted US GAAP rather than IFRS.

This study has several theoretical contributions. First, this research examines voluntary accounting adoption from the perspective of corporate governance deviation in the international corporate governance literature (Aguilera, Judge, and Terjesen 2018). We reveal that internationally diversified MNEs intentionally deviate from the standard set of corporate governance logics. In other words, IFRS or US GAAP adoption tend to have progressed in firms with higher internationalization degree.

Second, this study focuses on voluntary international accounting standard adoption of either IFRS or US GAAP under stakeholder-oriented corporate governance (Desender, Aguilera, López-puertas-Lamy, and Crespi 2016; Yoshimori 1995). Under stakeholder-oriented corporate governance in Japanese corporations, foreign shareholders have shareholder-oriented logics (Desender, Aguilera, López-puertas-Lamy, and Crespi 2016). In other words, foreign shareholders stress the compatibility of financial reporting in MNEs with a US region-specific approach. Thus, greater foreign shareholding results in the progress of US GAAP adoption in Japanese MNEs.

Our study has implications for stakeholder-oriented corporate governance (Desender, Aguilera, López-puertas-Lamy, and Crespi 2016) from a corporate governance deviance perspective (Aguilera, Judge, and Terjesen 2018). The result that foreign shareholders prefer US GAAP adoption over IFRS adoption is due to the corporate governance deviance perspective (Aguilera, Judge, and Terjesen 2018), in which an MNE intentionally deviates from Japanese GAAP or IFRS adoption in favor of US GAAP. Thus, the corporate governance deviation framework aims to explain why not all MNEs in nations conform to institutional pressures, such as IFRS adoption.

Our study has several limitations. First, policy debates about the mandatory adoption of IFRS in Japan have not been concluded. Thus, we cannot predict how Japanese MNEs would respond to changes in Japanese adoption policy in the future. Second, this study does not reveal which set of accounting standards improves the accounting quality of financial reporting of Japanese MNEs. These avenues may yield valuable results in future research.

6. CONCLUSIONS

This study investigates the relationship between internationalization and international accounting standards using a sample of Japanese MNEs during the period 2010–2017. Our results imply that Japanese internationalized MNEs tend to adopt either IFRS or US GAAP. Furthermore, our results reveal that foreign shareholders favor voluntary adoption of US GAAP rather than voluntary adoption of IFRS. From the semi-globalization perspective (Arregle, Miller, Hitt, and Beamish 2013), executives of Japanese MNEs tend to have a US region-specific approach. Foreign shareholders with shareholder-oriented logics (Desender, Aguilera, López puertas-Lamy, and Crespi 2016) encourage Japanese MNEs to be financially compatible. To establish financial compatibility in MNEs with a US region-specific approach, US GAAP adoption is more suitable than IFRS adoption. Thus, foreign shareholders have different attitudes toward the adoption of IFRS and US GAAP in Japanese internationalized MNEs.

Our research contributes to academic research and practice on firm-level corporate governance deviation. First, our findings reveal that international accounting standard adoption by MNEs is not necessarily suitable for IFRS adoption, like in European countries. The progress of IFRS adoption in MNEs depends on the region-specific approach of Japanese MNEs. In this sense, our study extends the semi-globalization perspective for the adoption of US GAAP in Japanese MNEs (Arregle, Miller, Hitt, and Beamish 2013). Second, pressures of financial compatibility from foreign shareholders with shareholder-oriented logics would result in the progress of US GAAP adoption under stakeholder-oriented corporate governance. Thus, this study provides evidence that a transition of corporate governance in stakeholder-oriented corporate governance would affect the firm-level corporate governance deviation.

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Table 1 The number of firms with IFRS and US-GAAP

year	Firm with IFRS (cumulative)	Firm with US-GAAP	Firm with Japan GAAP
2010	1	27	1012
2011	3	27	1006
2012	5	27	1003
2013	12	22	1004
2014	33	18	978
2015	41	16	936
2016	55	15	920
2017	62	15	893

TABLE 2 Descriptive Statistics

Variable	Mean	Std. Dev.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
1. IFRS	0.01	0.09																		
2. US_GAAP	0.02	0.14	-0.01																	
3. SUB	10.48	28.37	0.21 *	0.35 *																
4. COUNTRY	5.19	7.09	0.19 *	0.35 *	0.78 *															
5. INT_DIV	0.05	0.07	0.21 *	0.37 *	0.89 *	0.98 *														
6. FIN INST	0.22	0.24	0.12 *	0.26 *	0.36 *	0.56 *	0.53 *													
7. FOREIGN	0.19	0.13	0.05 *	0.17 *	0.29 *	0.45 *	0.43 *	0.45 *												
8. INSIDE	0.05	0.09	-0.03 *	-0.06 *	-0.13 *	-0.21 *	-0.20 *	-0.21 *	-0.34 *											
9. SIZE	10.91	1.63	0.15 *	0.35 *	0.49 *	0.66 *	0.64 *	0.66 *	0.61 *	-0.34 *										
10. ROA	0.02	0.17	0.01	0.01	0.01	0.03 *	0.03 *	0.03 *	0.06 *	0.00	0.12 *									
11. LIQUIDITY	0.18	0.13	-0.02	-0.07 *	-0.12 *	-0.16 *	-0.16 *	-0.01	-0.27 *	0.30 *	-0.36 *	0.00								
12. LEV	9.47	55.55	0.01	0.02	0.05 *	0.04 *	0.04 *	0.08 *	-0.01	-0.01	0.09 *	0.00	-0.03 *							
13. LOANS	0.12	0.13	0.00	-0.06 *	0.06 *	0.02 *	0.04 *	-0.15 *	0.03 *	0.03 *	-0.05 *	-0.29 *	-0.28 *	0.05 *						
14. AGE	34.10	20.07	0.05 *	0.12 *	0.25 *	0.36 *	0.35 *	0.25 *	0.55 *	-0.41 *	0.44 *	0.00	-0.33 *	0.00	0.12 *					
15. LOSS	0.10	0.30	-0.02	-0.01	-0.02 *	-0.05 *	-0.05 *	-0.09 *	-0.14 *	0.04 *	-0.18 *	-0.26 *	0.05 *	0.01	0.20 *	-0.06 *				
16. ABS_OPCF	0.07	0.06	0.01	0.02	-0.01	0.01	0.00	0.11 *	-0.05 *	0.08 *	-0.05 *	-0.09 *	0.21 *	-0.02	-0.03 *	-0.10 *	-0.02 *			
17. NOGEOSEG	0.07	0.60	0.03 *	0.40 *	0.19 *	0.27 *	0.26 *	0.20 *	0.10 *	-0.04 *	0.24 *	0.01	-0.04 *	0.02	-0.02 *	0.08 *	-0.03 *	0.01		
18. EQU_GRO	1.01	0.19	-0.01	0.00	0.00	0.01	0.01	-0.01	-0.01	0.04 *	0.00	-0.01	0.04 *	-0.02	0.01	-0.04 *	0.04 *	0.10 *	0.00	
19. BIG_N	0.75	0.43	0.04 *	0.06 *	0.11 *	0.15 *	0.15 *	0.17 *	0.16 *	-0.08 *	0.26 *	0.06 *	-0.10 *	0.00	-0.09 *	0.01	-0.09 *	-0.01	-0.01	0.00

Note: * indicates significance at the 0.05 level, respectively. N= 7,981

TABLE 3 Analysis for IFRS Adoption Analysis

	IFRS							
	Model 1		Model 2		Model 3		Model 4	
SUB			0.006	***				
			(3.07)					
COUNTRY					0.061	***		
					(4.28)			
INT_DIV							4.575	***
							(3.85)	
FOREIGN	0.467		0.669		0.262		0.480	
	(0.72)		(1.03)		(0.39)		(0.73)	
FIN INST	0.332		0.201		0.429		0.321	
	(0.18)		(0.11)		(0.22)		(0.17)	
INSIDE	0.263		0.075		0.264		0.143	
	(0.07)		(0.02)		(0.07)		(0.04)	
SIZE	0.890	***	0.724	***	0.672	***	0.669	***
	(6.90)		(5.36)		(4.86)		(4.83)	
ROA	14.010	***	13.240	***	12.370	***	12.690	***
	(3.82)		(3.56)		(3.13)		(3.30)	
LIQUIDITY	1.140		0.272		0.531		0.283	
	(0.90)		(0.21)		(0.39)		(0.21)	
LEV	-0.001		-0.001		0.000		0.000	
	(-0.70)		(-0.56)		(-0.46)		(-0.50)	
LOANS	2.210	*	0.931		0.688		0.591	
	(1.83)		(0.68)		(0.49)		(0.41)	
AGE	-0.010		-0.016		-0.020	*	-0.019	*
	(-1.02)		(-1.50)		(-1.83)		(-1.75)	
LOSS	0.065		-0.217		-0.311		-0.311	
	(0.07)		(-0.21)		(-0.30)		(-0.29)	
ABS_OPCF	-4.954		-4.472		-4.520		-4.453	
	(-1.58)		(-1.40)		(-1.37)		(-1.36)	
NOGEOSEG	-0.336	**	-0.329	**	-0.419	**	-0.380	**
	(-2.15)		(-2.14)		(-2.40)		(-2.31)	
EQU_GRO	-1.654	**	-1.838	**	-1.744	**	-1.824	**
	(-2.09)		(-2.24)		(-2.04)		(-2.15)	
BIGN	1.371	*	1.327	*	1.404	*	1.349	*
	(1.81)		(1.79)		(1.86)		(1.82)	
Intercept	-16.98	***	-14.31	***	-13.92	***	-13.67	***
	(-8.80)		(-7.18)		(-6.68)		(-6.64)	
Pseudo R2	0.287		0.302		0.313		0.310	
Log likelihood	-258.7		-253.3		-249.5		-250.4	
Chi-squared	293.7	***	304.2	***	295.0	***	299.6	***

Note: *, **, and *** indicate significance at the 0.10, 0.05, and 0.01 level, respectively. All the regression models include industry fixed effects. N=7,981.

TABLE 4 Analysis for US GAAP Adoption Analysis

	US-GAAP							
	Model 1		Model 2		Model 3		Model 4	
SUB			0.005	**				
			(2.19)					
COUNTRY					0.046	***		
					(2.95)			
INT_DIV							3.775	***
							(2.78)	
FOREIGN	1.673	***	1.813	***	1.690	***	1.776	***
	(3.24)		(3.43)		(3.33)		(3.45)	
FIN INST	10.140	***	9.896	***	10.410	***	10.170	***
	(7.85)		(7.72)		(7.71)		(7.76)	
INSIDE	-3.637		-3.214		-3.086		-3.050	
	(-0.70)		(-0.67)		(-0.66)		(-0.65)	
SIZE	1.548	***	1.440	***	1.445	***	1.419	***
	(11.39)		(9.32)		(9.71)		(9.33)	
ROA	2.778		2.219		1.850		1.857	
	(0.51)		(0.40)		(0.33)		(0.33)	
LIQUIDITY	0.366		-0.050		0.500		0.222	
	(0.28)		(-0.04)		(0.39)		(0.17)	
LEV	0.000		0.000		0.000		0.000	
	(0.23)		(0.21)		(0.78)		(0.56)	
LOANS	-8.947	***	-9.759	***	-9.869	***	-10.020	***
	(-4.84)		(-4.73)		(-4.80)		(-4.69)	
AGE	-0.005		-0.010		-0.016	**	-0.015	**
	(-0.80)		(-1.57)		(-2.33)		(-2.21)	
LOSS	0.866		0.775		0.646		0.670	
	(1.31)		(1.15)		(0.90)		(0.96)	
ABS_OPCF	0.899		0.975		0.344		0.594	
	(0.23)		(0.25)		(0.09)		(0.15)	
NOGEOSEG	0.911	***	0.896	***	0.915	***	0.903	***
	(4.98)		(5.20)		(5.71)		(5.58)	
EQU_GRO	0.149		0.201		0.204		0.214	
	(0.65)		(0.85)		(0.94)		(0.96)	
BIGN	3.016	***	2.973	***	3.253	***	3.133	***
	(4.31)		(4.49)		(5.07)		(4.93)	
Intercept	-32.03	***	-30.20	***	-30.73	***	-30.13	***
	(-14.16)		(-12.09)		(-12.81)		(-12.47)	
Pseudo R2	0.691		0.693		0.698		0.697	
Log likelihood	-250.7		-248.9		-245.2		-246.1	
Chi-squared	415.9	***	452.6	***	383.5	***	403.2	***

Note: *, **, and *** indicate significance at the 0.10, 0.05, and 0.01 level, respectively. All the regression models include industry fixed effects. N=7,981.

TABLE 5 Event history analysis for IFRS Adoption

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
SUB	0.005	**					0.005	**				
	(2.42)						(2.41)					
SUB	0.004						0.004					
* Pre Dummy	(1.45)						(1.37)					
COUNTRY			0.056	***					0.057	***		
			(3.84)						(3.75)			
COUNTRY			0.016						0.014			
* Pre Dummy			(0.71)						(0.59)			
INT_DIV					4.003	***					4.054	***
					(3.33)						(3.26)	
INT_DIV					1.584						1.475	
* Pre Dummy					(0.93)						(0.87)	
FOREIGN	0.641		0.280		0.490		0.563		0.185		0.405	
	(0.98)		(0.42)		(0.75)		(0.81)		(0.25)		(0.57)	
FOREIGN							0.551		0.675		0.601	
* Pre Dummy							(0.42)		(0.49)		(0.44)	
FIN INST	-0.006		0.319		0.180		-0.357		-0.136		-0.215	
	(-0.00)		(0.17)		(0.10)		(-0.18)		(-0.07)		(-0.11)	
FIN INST							2.135		2.561		2.311	
* Pre Dummy							(0.54)		(0.74)		(0.62)	
INSIDE	0.059		0.265		0.141		-1.505		-1.360		-1.491	
	(0.02)		(0.07)		(0.04)		(-0.25)		(-0.22)		(-0.24)	
INSIDE							6.270		6.581		6.634	
* Pre Dummy							(0.88)		(0.92)		(0.92)	
SIZE	0.718	***	0.668	***	0.666	***	0.716	***	0.665	***	0.663	***
	(5.28)		(4.78)		(4.77)		(5.23)		(4.75)		(4.73)	
ROA	12.910	***	12.290	***	12.540	***	12.810	***	12.100	***	12.380	***
	(3.41)		(3.10)		(3.25)		(3.40)		(3.07)		(3.22)	
LIQUIDITY	0.176		0.468		0.203		0.202		0.511		0.238	
	(0.14)		(0.34)		(0.15)		(0.16)		(0.37)		(0.18)	
LEV	-0.001		0.000		0.000		-0.001		0.000		0.000	
	(-0.60)		(-0.45)		(-0.51)		(-0.60)		(-0.46)		(-0.51)	
LOANS	0.826		0.662		0.539		0.805		0.659		0.523	
	(0.60)		(0.47)		(0.37)		(0.58)		(0.47)		(0.36)	
AGE	-0.016		-0.020	*	-0.019	*	-0.016		-0.020	*	-0.019	*
	(-1.48)		(-1.81)		(-1.72)		(-1.49)		(-1.82)		(-1.73)	
LOSS	-0.073		-0.282		-0.229		-0.095		-0.309		-0.254	
	(-0.08)		(-0.29)		(-0.23)		(-0.10)		(-0.31)		(-0.25)	
ABS_OPCF	-4.055		-4.268		-4.144		-4.002		-4.147		-4.048	

	(-1.27)		(-1.31)		(-1.28)		(-1.27)		(-1.29)		(-1.27)	
NOGEOSEG	-0.315	**	-0.409	**	-0.367	**	-0.316	**	-0.411	**	-0.369	**
	(-2.05)		(-2.37)		(-2.26)		(-2.04)		(-2.36)		(-2.24)	
EQU_GRO	-1.787	**	-1.717	**	-1.791	**	-1.749	**	-1.656	*	-1.740	**
	(-2.17)		(-2.02)		(-2.12)		(-2.06)		(-1.89)		(-2.00)	
BIGN	1.331	*	1.394	*	1.345	*	1.324	*	1.386	*	1.337	*
	(1.79)		(1.85)		(1.82)		(1.79)		(1.84)		(1.81)	
Intercept	-14.49	***	-14.16	***	-13.92	***	-15.33	***	-15.15	***	-14.83	***
	(-7.36)		(-6.97)		(-6.93)		(-6.90)		(-6.62)		(-6.59)	
Pseudo R2	0.305		0.313		0.311		0.306		0.315		0.313	
Log likelihood	-252.3		-249.2		-249.9		-251.7		-248.4		-249.2	
Chi-squared	297.6	***	286.8	***	291.6	***	301.6	***	293.0	***	297.3	***

Note: *, **, and *** indicate significance at the 0.10, 0.05, and 0.01 level, respectively. All the regression models include industry fixed effects. N=7,981.

TABLE 6 Event history analysis for US-GAAP Adoption

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
SUB	0.000						0.001					
	(0.08)						(0.22)					
SUB * Pre Dummy	0.008	*					0.007	*				
	(1.89)						(1.72)					
COUNTRY			0.037	*					0.041	**		
			(1.83)						(1.99)			
COUNTRY * Pre Dummy			0.015						0.009			
			(0.73)						(0.43)			
INT_DIV					2.639						2.926	
					(1.47)						(1.63)	
INT_DIV * Pre Dummy					2.115						1.639	
					(1.19)						(0.95)	
FOREIGN	1.800	***	1.705	***	1.780	***	1.864	***	1.637	**	1.797	***
	(3.40)		(3.36)		(3.45)		(2.65)		(2.43)		(2.64)	
FOREIGN * Pre Dummy							0.035		0.270		0.122	
							(0.04)		(0.32)		(0.15)	
FIN INST	9.637	***	10.340	***	10.030	***	8.214	***	8.771	***	8.530	***
	(7.45)		(7.57)		(7.55)		(5.09)		(5.30)		(5.23)	
FIN INST * Pre Dummy							2.641		2.942		2.811	
							(1.54)		(1.62)		(1.58)	
INSIDE	-2.709		-2.795		-2.658		3.097		3.681		3.390	
	(-0.58)		(-0.60)		(-0.58)		(1.19)		(1.43)		(1.31)	
INSIDE * Pre Dummy							-8.332		-9.170		-8.619	
							(-1.27)		(-1.41)		(-1.34)	
SIZE	1.427	***	1.440	***	1.410	***	1.440	***	1.457	***	1.425	***
	(8.89)		(9.70)		(9.26)		(8.83)		(9.67)		(9.23)	
ROA	1.793		1.732		1.677		1.928		1.869		1.805	
	(0.31)		(0.31)		(0.30)		(0.34)		(0.34)		(0.32)	
LIQUIDITY	-0.113		0.513		0.220		-0.035		0.599		0.298	
	(-0.08)		(0.40)		(0.17)		(-0.03)		(0.47)		(0.23)	
LEV	0.000		0.001		0.001		0.000		0.001		0.001	
	(0.56)		(0.88)		(0.77)		(0.70)		(0.98)		(0.90)	
LOANS	-10.020	***	-9.863	***	-10.040	***	-9.812	***	-9.720	***	-9.877	***
	(-4.66)		(-4.76)		(-4.66)		(-4.59)		(-4.68)		(-4.59)	
AGE	-0.011		-0.016	**	-0.015	**	-0.010		-0.016	**	-0.015	**
	(-1.61)		(-2.31)		(-2.21)		(-1.54)		(-2.23)		(-2.13)	
LOSS	0.774		0.641		0.678		0.789		0.654		0.688	
	(1.12)		(0.88)		(0.94)		(1.16)		(0.92)		(0.98)	

ABS_OPCF	1.198		0.488		0.830		1.953		1.255		1.576	
	(0.30)		(0.12)		(0.21)		(0.49)		(0.31)		(0.39)	
NOGEOSEG	0.899	***	0.915	***	0.905	***	0.910	***	0.927	***	0.916	***
	(5.30)		(5.72)		(5.63)		(4.93)		(5.26)		(5.20)	
EQU_GRO	0.219		0.212		0.224		0.222		0.210		0.226	
	(0.96)		(0.97)		(1.01)		(1.03)		(1.02)		(1.07)	
BIGN	2.977	***	3.240	***	3.126	***	3.040	***	3.324	***	3.201	***
	(4.58)		(5.08)		(4.96)		(4.43)		(4.87)		(4.77)	
Intercept	-30.04	***	-30.78	***	-30.14	***	-30.84	***	-31.71	***	-30.99	***
	(-11.74)		(-12.85)		(-12.49)		(-11.41)		(-12.44)		(-12.13)	
Pseudo R2	0.695		0.698		0.697		0.697		0.700		0.699	
Log likelihood	-247.1		-244.9		-245.4		-245.8		-243.3		-243.9	
Chi-squared	437.5	***	383.3	***	402.8	***	452.2	***	394.0	***	414.9	***

Note: *, **, and *** indicate significance at the 0.10, 0.05, and 0.01 level, respectively. All the regression models include industry fixed effects. N=7,981.

Appendix A Definitions and Measurements of the Variables

Variable	Definition
Dependent variable	
IFRS	Dummy variable that equals one if the firm adopts IFRS, and otherwise zero
US_GAAP	Dummy variable that equals one if the firm adopts US GAAP, and otherwise zero
Independent variable	
SUB	Total number of overseas subsidiaries of a firm
COUNTRY	Total number of countries in which the firm has overseas subsidiaries
INT_DIV	Average of the ratio of *SUB* to the maximum value of *SUB* and the ratio of *COUNTRY* to the maximum value of *COUNTRY*
FIN INST	Ratio of ownership of financial institutions
FOREIGN	Ratio of ownership of foreign investors
INSIDE	Ratio of ownership of management and board members
SIZE	Natural log of total assets
ROA	Return on total assets
LIQUIDITY	Ratio of cash assets to total assets
LEV	Ratio of total debt to equity
LOANS	Loans divided by total assets
AGE	Number of years that the firm has been listed on the stock market
LOSS	Dummy variable that equals one if the firm has a net loss, and otherwise zero
ABS_OPCF	Absolute value of operating cash flow to lagged total assets
NOGEOSEG	Number of geographic segments in which the firm operates
EQU_GRO	Current year's equity divided by prior year's equity
BIG_N	Dummy variable that equals one if the firm is audited by a Big Four audit firm (i.e., EY, Deloitte, KPMG, or PwC), and otherwise zero
Industry FE	Industry dummy variable that equals one if the firm is represented in the specific Tokyo Stock Exchange New Industry Code category, and otherwise zero

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Acknowledgements: This work was supported by JSPS KAKENHI Grant Number JP18K01808.

ABSTRACT

How do Big Data and AI innovation affect agritech-businesses? To answer this question, we conducted case studies on companies that help increase the productivity of agricultural production. Results show that acquiring and maintaining big data promote competitive advantages. Agricultural sensor companies construct detailed data-point strategies to gather information. Information collected from paddy fields and greenhouse cultivation are used for their own maintenance. Based on the survey by the Ministry of Agriculture, Forestry and Fisheries in Japan, we conducted a quantitative analysis using the data of 226 new agritech businesses. Probit and logit analyses identified that sensor technology induced AI applications. Factor analysis and structural covariance equation analysis revealed that "Observation," "Judgement," and "Labor Saving" technologies are sought by new agritech businesses. We propose that decision making using big data requires custom-made data point strategy for consequent use of new technological innovation.

Keywords: Big Data; Agritech Businesses; Information Mesh; Data Point Strategy; AI Innovation, Decision Making

INTRODUCTION

There are two approaches for data collection. One is to make the whole range observable, from which we gather common information and used it to make judgments and decisions. Large amounts of data, referred to as “Big Data,” are gathered through the collection of various data points. We call it the macroscopic approach. The other is a microscopic approach that specifically focuses on a section of the observable set to collect information and make judgments and decisions based on the available data. The focus needs to be customized to serve the requirements of specific corporate management strategies.

Readily available big data cannot necessarily satisfy the needs for decision making to increase productivity. Organizations use big data for problem solving by utilizing their own information. Decision making is based on the analysis of data gathered. Organizational information is managed to optimize knowledge transfer between the two elements, namely data gathering points and decision makers.

The internet has led technological innovation in information gathering and communication using big data. The time and distance barriers of communication are reduced at a lower cost by internet technologies. Subsequent innovations such as Internet of Things (IoTs) and Big Data have made decision making prompt by applying the highly accurate knowledge available. Analysis of these innovations led to further advancement in the field of Artificial Intelligence (AI). Technological innovation in data collection creates a series of optimization mechanisms for knowledge management.

In order to empirically examine the dichotomy of macroscopic and microscopic approaches, we took examples from weather forecasting and agritech businesses. For the macroscopic approach, we gathered publicly available data on the Weather Business Promotion Consortium (WXBC) and the Japan Meteorological Agency (JMA). WXBC was founded by JMA to promote weather businesses in Japan and uses meteorological data for forecasting. JMA is representative of the weather data for broadcasting companies in Japan. It runs 156 weather stations throughout Japan to conduct specific meteorological observations. Precipitation is automatically observed in 1,327 location points in Japan using the "regional weather observation system" equipment called "AMeDAS" (Automated Meteorological Data Acquisition System). The 1,327 weather observation points are installed in about 17 km intervals all over Japan. Additionally, in 956 points, automatic observation of wind direction, wind speed, temperature, and sunshine time is made available within about 21 km intervals. JMA also observes the amount of snowfall at 324 locations in areas of heavy snowfall in Japan. WXBC and JMA provide the base cases for a macroscopic approach.

Big data and a macroscopic approach seem insufficient to cover the needs of a user for decision making. Big data contributes to competitiveness only if it is complemented by supplementary microscopic data. Competitive firms need to focus on business models in a microscopic approach. The research question in this paper is summarized as follows. Why do we need a microscopic approach of setting data points which lead to decision making? This research question is related to a practical need as to how many data points we need to set to

obtain big data. What is crucial for companies to acquire and maintain a competitive advantage to facilitate big data management? What makes companies utilize AI for information processing in the agritech industry?

We planned our research to include both qualitative and quantitative studies. In the former approach, we surveyed business cases concerning the application of agricultural big data in Japan. How do they utilize agricultural data-point strategy? Are these cases considered effective in big data managements? The question of data points is important because it is concerns strategic choice. The resources of firms are limited when they decide how many data points they would install. If the data-point strategy is not explicitly considered, big data collection cannot be adapted to facilitate performance management (Jaradata, et. al., 2015). In addition, if data collection includes the whole measurement range all the time, data collection procedure lacks adaptability to specific needs in a specific situation. The answer to our research question will indicate a practice on how to use big data. We discuss the importance of the two approaches, macroscopic approach and microscopic approach, further based on our case studies.

For the quantitative approach, we used the data made available by the Ministry of Agriculture through a booklet, Forestry and Fisheries (MAFF) in Japan published a data source of agritech businesses in August 2019, called "Smart Agritech Catalogue in 2019: Cultivation, Aggregated Data." (Japanese Title is: Sumaato Nougyou Gijutsu Katarogu: Koushu Nougyou, Zentaiban, published in Japanese). We conducted two sets of analyses: (1)

factor analysis and structural equation analysis and (2) probit and logit analysis.

LITERATURE SURVEY ON BIG DATA AND DATA COLLECTION

The use of big data is increasing exponentially facilitated by sensor networks and high throughput instruments. The technological innovation of "recording" is now termed as “social software” (Eagle and Pentland, 2005). Companies take advantage of social software to exploit new forms of interaction, collaboration, and knowledge sharing (Razmerita, Kirchner, and Nabeth, 2014). Remote sensing is another example of social software (Ma et. al., 2014). When remote sensing is used with "high resolution earth observation", the cutting-edge technology is researched through large-scale data processing. Social media supports the generation of personal data with a collective dimension of knowledge (Horaguchi, 2014). While integrating the dimensions of social cooperation, tagging the context of the information on texts and voices is also advanced by annotation of image data via remote sensing. Studies on automatic tagging technology are underway (Shah, et. al., 2016).

A wide range of communication tools using Internet technology has been developed beyond "recording" and gone into knowledge "aggregation" through technology. Knowledge is being "aggregated" not only by sharing information generated by interpersonal communication but also by adding annotations to information generated via sensing technology. Chen and Zhang (2014) characterized the concept of big data according to the three dimensions of volume,

velocity, and variety. Volume refers to the size of the data set, velocity indicates the speed of input and output of data, and variety expresses the type of data and the range of the source. Gartner (2012) defined variety as large capacity, high speed, insight discovery, process optimization and a wide variety of information assets that require a new form of processing that enables more sophisticated decision making. He further stated, a data set that can capture, curate, analyze, and visualize is called Big Data.

Simon (1947) presented the concept of bounded rationality that humans intend to be reasonable, but that they can only have limited rationality due to limitations of cognitive abilities. Williamson (1981) uses this concept in his transaction cost theory and assumes that humans are limited rationally and have an opportunistic character. Information technology is generally considered to be a means of reducing the transaction cost of an organization. In practice, however, incorporating new information technology often results in higher transaction costs than before (Wiseman, 1988). Cordella (2006) explained the reason. Because of human cognitive ability constraints, simple heuristics may be used for judgment and decision-making. Heuristic is a simple calculation strategy used by humans in judgment and decision making. A strategic heuristic decision making is claimed to be a quite simple calculation.

The "deep learning" method in AI makes judgments and predictions with high precision based on the "aggregation" of knowledge. Silver et al. (2016, 2017) reported a case wherein a Go game was developed using AI to defeat professional players. Silver et al. (2017) have

reported a case of developing a more powerful Go game using self-reinforcement learning alone. If big data and AI innovations interlock to play transferring knowledge among AI, the boundary between tacit and explicit knowledge seems to disappear in machine learning.

Nonaka and Takeuchi (1995) defined tacit knowledge as personal knowledge about specific situations or knowledge that is difficult to formalize or tell others. They also defined explicit knowledge as transferable via formal and logical language. Subsequently, the "SECI model" was presented as a process model in which new knowledge is created through the interaction of tacit knowledge and explicit knowledge among individuals, groups, and organizations. The whole processes may well be substituted by AI machine learning processes.

Eric von Hippel (1994) presented the concept of information stickiness. It is defined as the cost necessary for information seekers in a new place to acquire, transfer, and use the information necessary for problem solving from its original location. Information stickiness would determine where innovation will be generated and thereby present a pattern of problem-solving places related to innovation. Factors causing information stickiness include the quality of information itself, the amount of information to be transferred, and the attributes of information seekers and providers.

[Table 1 is about here.]

We are now able to characterize Data-Point Strategy. The model clarifies how to implement one of the strategies in managing information. We summarize two by two strategies in Table 1. They are macroscopic versus microscopic approach on the vertical axis and differentiation

versus integration approach (Lawrence and Lorsch, 1967) on the horizontal axis. Differentiation approach is to gather specific information which is not gathered by competitors. Integration approach is to get overall picture through given data.

The constraint of human cognitive ability leads to bias of judgment and decision making. Time and resource constraints are some of the typical constraints in management. As such, the base knowledge is inseparable from the data points which are the source of retrievable information. Taking the meteorological sensor industry in Japan as a case, we discuss the above hypothesis. The meteorological sensor industry applies weather and paddy field data to guide judgment and decision making. They construct a detailed information mesh to maintain the conditions of paddy fields. Under that condition, we investigate the mesh as granularity of data collection and analytics. Experts and people involved in business sites can make more accurate, timely, and appropriate judgments based on the information that is gathered as big data. The issue addressed by this paper leads to conceptualization of granularity in data-point management which requires the processes of aggregation, deep learning, and automation.

CASE STUDIES

We surveyed agritech data businesses for purposes of this research; the interview procedure is summarized in Table 1. First, one of the authors visited Vegetalia Inc. on July 3, 2018, and Halex Corporation on July 9, 2018, and conducted each interview at the companies' offices

for about one hour. Furthermore, one of the authors visited Niigata City on October 9, 2018. We conducted the interview for about two hours at New Food Valley Special Zone Office in Niigata City and field visit and interview survey in the paddy field for two hours. These cases were selected to show that the data in weather business are accumulated locally. Short-term data are used for making judgments and predictions. It enables people to make logical judgements in their everyday lives.

[Table 2 is about here.]

We focused on two companies to show a microscopic approach in Niigata region. The first company is Halex Corporation, which promotes meteorological data business utilizing JMA data. Halex provides various meteorological data as well as IT services that support visualization of the said data. The company currently provides services for agricultural enterprises, one of which is the "Halex Dream," a service that updates data provided by JMA every 30 minutes within a 1 km square range. We used three methods provide the data: providing information on a desired spot, providing real-time information upon request, and collectively providing a wide range of information. Although JMA provides meteorological data only three times a day, Halex provides them every 30 minutes and throughout Japan. Weather forecast data include global data, referred to as GSM, and Japanese region data: MSM and LFM. Both offer numerical predictions with simulation information.

Halex mixes actual measurement data from AMeDAS and data from the radar of JMA and provides the data by adding expertise. Since the difference between the forecast data and the

actual measurement data exists due to coarse measurement intervals, the influence of the topography is not neglected. Corrections such as smoothing are performed within a range of about six hours. The company provides one-week forecasts and 72-hour forecasts for specific places, such as construction sites for the relevant industry. Moreover, the forecast data of Halex called "Nowcast," provides finer data at shorter intervals. The company provides forecast information to the railway industry for monitoring the routes by using 1 km square data. Services include monitoring short-term precipitation for traffic impacts which is used for 24-hour abnormal rainfall information for traffic route maintenance. For municipalities, Nowcast provides disaster alerts on heavy rainfall, river flooding, and induced collapse of lands.

The company began selling such data six years ago, and past data has been accumulated. The agricultural customers wish to analyze the weather data at different places across the plains and mountainous areas. The utilization of digitized data has not progressed far enough except for agriculture and fresh foods. One kilo square meter mesh data is required by customers in convenience stores who have to analyze the correlation between weather data and sales. In retail industry, point-of-sale (POS) data and weather information are combined and used for sales recovery and opportunity loss analysis. In the casualty insurance industry, route navigation information and accident cases are combined with weather information to alert drivers about accidents. The switch between hot and cold in vending machines requires the utilization of weather data for a wider range of operations.

Vegetalia Inc., is another company which combines sensing technology and IoT to collect micro-weather data. It is an IT services vendor that provides information about weather, water, fertilizer, and agricultural chemicals in specific fields. Meteorological data provided by JMA is in the range of 20 km and differs for each field. Therefore, the company measures the micro-weather data of each site using a product called "Field Server." It ascertains the current situation of each field and helps determine the next necessary task. For example, the cumulative temperature determines the time when the flowers bloom or turn into fruits. Farmers previously anticipated flowering time and harvest time by experience and intuition, but by the assistance of "Field Server," they can make a more accurate judgment with the data provided. This data is also useful for insect repellent and antibacterial work. Fungi, for example, breed when a certain humidity condition lasts for hours. "Field Server" is used to effectively spray agricultural chemicals.

"Field Server" is box-type with a width of 11.6 cm, a height of 20.9 cm, and a depth of 7.2 cm, installed at a height of 1.5 m and collects micro-meteorological data of the paddy field. The observable range differs depending on the terrain, and the temperature changes according to the altitude. Hence, it is installed where it best fits the situation of the field. The information is checked from PCs and smart pads together with weather forecast.

Another product called "Paddy Watch" measures the water level of a paddy field using a water pressure sensor. For example, when the temperature of a paddy field rises on an extremely hot day, it is possible to lower the temperature through radiation cooling by

draining the water. In cold climate, such as the frost season of early spring, the water temperature around the paddy field must be warmed up for heat insulation. Recently, the fields are being sprayed with fertilizer by drone to save the time and effort of planting rice seedlings.

We conducted an interview survey on Niigata City's participation in the Innovative Agricultural Practice Special Zone of Niigata City, where Vegetalia participates as one of the group companies. This initiative is designated as one of the national strategic special zones led by the Japanese Cabinet Office. Niigata City was designated as a "National Strategy Special Zone" and as a "Reform Base of Large-Scale Agriculture" on May 1, 2013, aiming to establish a base for strengthening international competitiveness of agriculture. The prefectural office in Niigata is located in the Chubu region facing the Sea of Japan, and within the region are the Shinano River, the longest river in Japan, and the area of the Echigo plain at the center, about 2,030 square kilometers (equivalent to about 2,194 square kilometers of Tokyo). Niigata City prides itself on being the major producer of rice and the largest cultivated area in Japan. However, as the number of agricultural business units decline and the rice production per business unit increases, the arable land area widens, Reducing labor burden on paddy field checking is a problem. Recently the number of agricultural ICT enterprises have increased, notwithstanding the merits of being special zones.

The city began a project in 2015 introducing paddy field sensors, called innovative rice

farming management system. The project remotely monitored field conditions with tablets and smartphones and facilitated the automatic monitoring of water level, water temperature, temperature, and humidity, thus reducing the turnaround time. As a result, the project improved paddy sensors in specs with low cost. Farmers praised the project and boosted sales of the products from 2016. This facilitated introducing these ICT agricultural efforts for elementary school students. These students experienced paddy field works and how sensors work. This activity would impress on them that agriculture was an attractive occupation. Paddy field sensors are also used for disaster prevention by monitoring rainfalls to minimize flood damage.

The city installed sensor devices in two fields of 36 acres as a demonstration area and acquired the micro meteorological data for comparison with the customary zone of 10 acres. Niigata City acquired image data (about 1 piece) of about 17.28 square kilometers in Smart Agriculture Inter-company Collaboration Project. An image of about 17.28 square kilometers including a field possessed by a monitor company was acquired by artificial satellite. It plans to compare the effect on yield and quality after harvesting.

QUANTITATIVE STUDIES

Data

Ministry of Agriculture, Forestry and Fisheries (MAFF, 2019) in Japan published a data source of agritech businesses in August 2019 called "Smart Agritech Catalogue in 2019:

Cultivation, Aggregated Data." (Japanese Title is: Sumaato Nougyou Gijutsu Katarogu: Koushu Nougyou, Zentaiban, published in Japanese). The PDF file on the MAFF site lists 226 cases of new agritech business development. The list shows objective crops, how to utilize the new technology, the name of the machines or devices, summary of technological contents, classifications of technology, company name of developer, and the company phone number. The classifications of technology are divided into five parts: Utilization of Management Data, Utilization of Crop Data, Environment Control, Automatic Driving/Work Reduction, and Sensing/Monitoring. This data is tabulated in the PDF file.

In addition, the authors identified three keywords in "Smart Agritech Catalogue in 2019: Cultivation, Aggregated Data." In the objective crops section and the summary of the technological contents section, we found the words such as Drone, AI, and Rice Production in Paddy Fields (*Suitou*, in Japanese). If a word, for instance, Drone, is found in the text, we valued the description as one and zero otherwise. If one of the three keywords appeared in the text, we set the value to one.

We used the five classifications in the list, and we mined the text to find three keywords of Drone, AI and Paddy Fields among 226 cases of the data set. In the five classifications, the MAFF marks a dot to identify the characteristics. We then allocated one for the data with a dot in the list and zero otherwise. If there is no dot, then the data is allocated “zero.” By screening the data like so, we got 8 by 266 cells in a matrix having either zero or one.

Analysis

Two analytical approaches were performed on the data. The first approach was factor analysis and structural equation analysis. These analyses allowed us to specify the impact on the latent variables common to the data. The relationship between these two analyses and the resulting latent variables is detailed below. The second approach is regression analysis by probit analysis and logit analysis. In the project aimed at technological innovation of smart agriculture, we analyzed using the term “AI” as a dependent variable and other cultivation purposes as explanatory variables. The purpose of these analyses is to examine what explanatory variables are emphasized by smart agricultural projects that are going to use “AI.”

Factor analysis was performed with eight variables. In Figure 1, the top two factors with high contribution in the factor analysis are taken as X and Y axis. The 8 variables are plotted on the graph. Along the X axis, C5 or “Sensing/Monitoring” shows higher level among the first factor. On the Y axis, C4 or “Automatic Driving/Work Reduction” recorded high value. The contribution ratio was expressed by eigenvalues of the variables in Figure 2 (see also Appendix Table 1). It shows that the eigenvalues of the three factors explain most of the total variations.

[Figure 1 is about here.]

[Figure 2 is about here.]

We set three stages of “Observation,” “Judgement,” and “Control (Labor Saving)” as the model for the structural covariance analysis (Figure 3). Collecting data and measuring it for

decision making have been conceptually divided. The first stage is “Observation and Recording” where sensor application is equipped. The second stage is “Aggregation and Judgement” where big data is aggregated for AI with deep learning application. The third stage is to “Control and Automation” in which labor-saving automation technology is applied for smart agritech application.

[Figure 3 is about here.]

[Figure 4 is about here.]

The results of the structural covariance analysis are summarized in Figure 4. The analysis resulted in four consequences: Observation to Environment Control, Observation to Judgement, Judgement to Labor Saving, and Labor Saving to Automatic Drive. One can interpret these results as a kind of stage theory, using new technologies in new agritech-business development. Unfortunately, the statistical test on RMSEA index was merely 0.17. The result should be considered as a tentative one.

The results of probit analysis and logit analysis are shown in Table 3 and Table 4, respectively. The dependent variable is AI, by which we found the word “AI” from the text in "Smart Agritech Catalogue in 2019: Cultivation, Aggregated Data." This means that the developers who were listed in the data used the word “AI” in their technological applications. We chose this variable D2 or AI as the dependent variable in the probit and logit analyses.

Independent variables are also gathered from the same data. They are the variables in factor

analysis and structural covariance analysis. Two variables, D1: Drone and D3: Rice Production in Paddy Fields (*Suitou*, in Japanese) are also found in the text by each developer like D2: AI. The following five variables were indicted in a tabular form in the "Smart Agritech Catalogue in 2019: Cultivation, Aggregated Data." They are C1: Utilization of Management Data, C2: Utilization of Crop Data, C3: Environment Control. C4: Automatic Driving/Work Reduction, and C5: Sensing/Monitoring.

The result of the probit analysis is shown in Table 3. Two independent variables, C2: Utilization of Crop Data and C3: Environment Control were statistically significant as having positive significance at 5% level. One independent variable D3: Rice Production in Paddy Fields showed negative significance at 5% level.

[Table 3 is about here.]

The result of the logit analysis is shown in Table 4 and two variables, C2: Utilization of Crop Data and C3: Environment Control, were also statistically significant. D3: Rice Production in Paddy Fields showed 10% level of negative significance.

[Table 4 is about here.]

The probit and logit analysis indicate that the developers of agritech industry use the word “AI” when they aim for C2: Utilization of Crop Data and C3: Environment Control. However, the developers of agritech industry did not use the word “AI” when they are involved in D3: Rice Production in Paddy Fields.

DISCUSSION: GRANULARITY OF INFORMATION

Table 5 depicts two by two approaches for data handling: Macro-Micro dichotomy by differentiation, integration dichotomy. Macroscopic approach in meteorological observation constructs an intelligent approach for big data assessment. JMA installs 156 weather stations throughout Japan. JMA adds automatic observation points for measuring precipitation at 1,327 points. It is the "regional weather observation system" called "AMeDAS" that is constructed at 17 kms intervals. In addition, at 956 points, automatic observation of wind direction, wind speed, temperature and sunshine time is measured at 21 kms intervals. JMA observes the amount of snowfall at 324 locations in snowy regions.

[Table 5 is about here.]

Microscopic approach is another method to assess big data. Microscopic approach is taken by Halex Corporation and Vegetalia Inc. Halex provides a service that subdivides the data provided by JMA into a range of 1 km square and updates it every 30 minutes. In the project with Niigata City, Vegetalia installed sensors on each of the 36-acre fields and collected micro weather data. In this study, we found that sensing technology and the IoT were used to localize the mesh of data-points. Microscopic approach enables short-term information aggregation and decision making is detailed accordingly. Localized data-points with sensors contribute high-precision observation of the crop fields. Forecasting by sensing data is expected to be promoted by farm management.

We confirmed that the two approaches reinforce each other. The macroscopic approach

collects common information from the whole system such as weather data for a region and separates it into subdivisions. This approach leads to judgment and decision-making in a wider geographic area and observes specific data points to collect various types of information from detailed data points. It involves making judgments stereoscopically as shown in Table 3. The microscopic approach requires efforts to install sensors, and it can replace the human know-how with detailed data.

As is suggested in the Data-Point Strategy Model, the two companies surveyed and Niigata City differ when they advance the process of integration; therefore, the choice on differentiation and integration is considered as the central process of heuristic adaptation. The recording of paddy fields' information using Vegetalia's "Agri-Note" is distinctive because it substitutes the recording by human labor.

IMPLICATION AND LIMITATION

AI substitutes human judgment and prediction; it implies a systematized series of cycles comprising data integration, deep learning, and decision making. AI determines optimum conditions from data that are constructed by variables, and the model is regularly reviewed. In this process, AI cannot decide the parameters on data points. Human beings are obliged to decide the inquiry into "where," "how often," "how many," "for what to sensor," and "how accurate the sensor should be." Once these decisions are made, they exist as the constraints for AI data processing. AI can select the range of data from preselected parameters.

Human role in organizations is thus to decide the constraints for AI. They are primarily responsible for the analysis of judgments and predictions using AI. With AI innovation, the speed of change and the amount of information increase. When situation-adaptive judgments and predictions are required, local and short-term data accumulation becomes increasingly important in an environment where the decision makers have resource constrains. The data point strategy is one of the examples for environment. The role of people in organizations will be to decide data-point strategy and usage of the system to accurately make judgments and predictions with the aid of big data and AI.

This research is based on qualitative data derived from a few cases and limited quantitative data. It is therefore necessary to conduct further verification by expanding the research scope to include more cases or bigger quantitative data analysis. However, we can propose the following conjecture on the two approaches.

Macroscopic approach covers wider area and makes differentiated information from segmented area. If coverage area is huge, like a country or a local government, the information mesh becomes coarse. In such a case, wider granularity of data points leads to arbitrary decision making. The information collection cost is lower than microscopic approach, but the information is not detailed. A microscopic approach complements the macroscopic approach. The scale of the organization can be a minimum unit like individuals or teams. Observable range suitable for the purpose is also narrowed. A microscopic approach is adjusted for adaptive needs while the information collection cost goes down.

Two approaches coexist because both approaches are dependent on differences in organizational size and the necessity of data points. The use of AI for systemizing forecasting and decision making are underway. Data-point strategy will define the information processed by AI.

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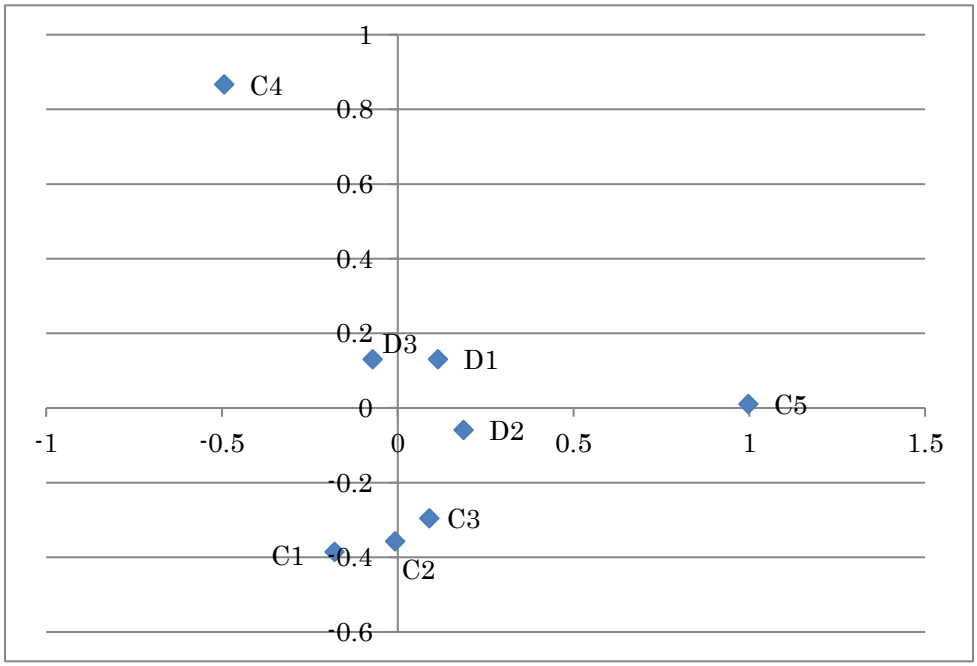
Figure 1. Factor Analysis of Eight Indicators



Note 1: C1: Utilization of Management Data. C2: Utilization of Crop Data.

C3: Environment Control. C4: Automatic Driving/Work Reduction.

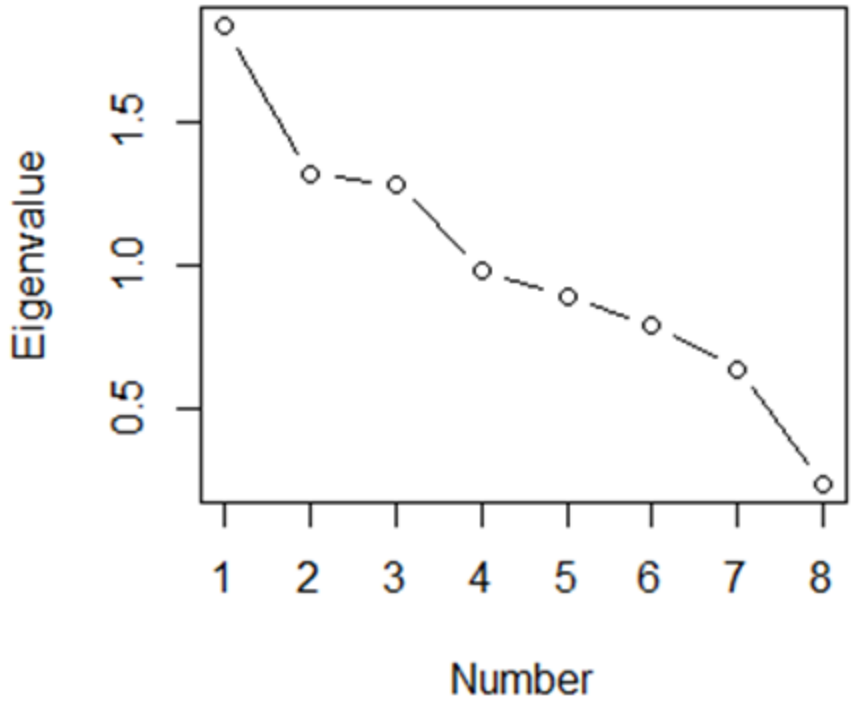
C5: Sensing/Monitoring. D1: Drone. D2: AI.

D3: Rice Production in Paddy Fields (*Suitou*, in Japanese).

Note 2: Test of the hypothesis that three factors are enough. The chi square statistic is 24.73 on 7 degrees of freedom. The p-value is 0.000847. Cronbach's alpha is 0.45.

Source: Analysis by authors

Figure 2. Eigenvalues of the Factor Analysis and Factor Contributions



Source: Analysis by authors

Figure 3. Conceptual Diagram of Agricultural Automation

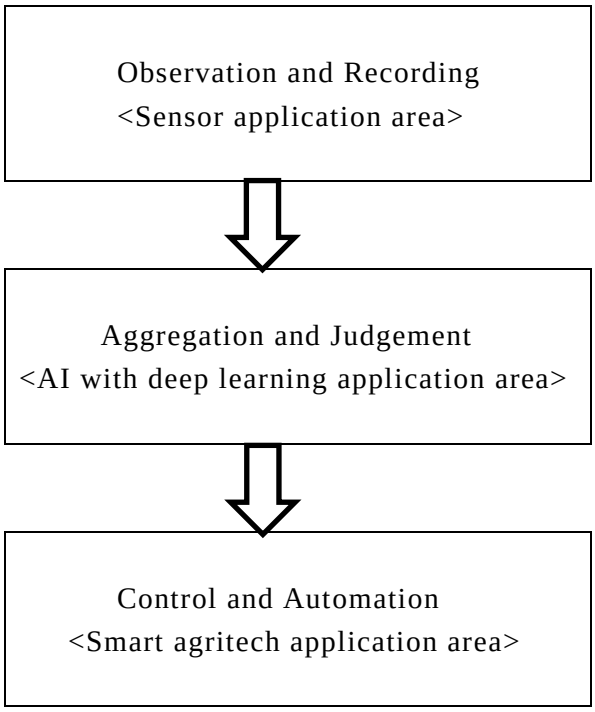
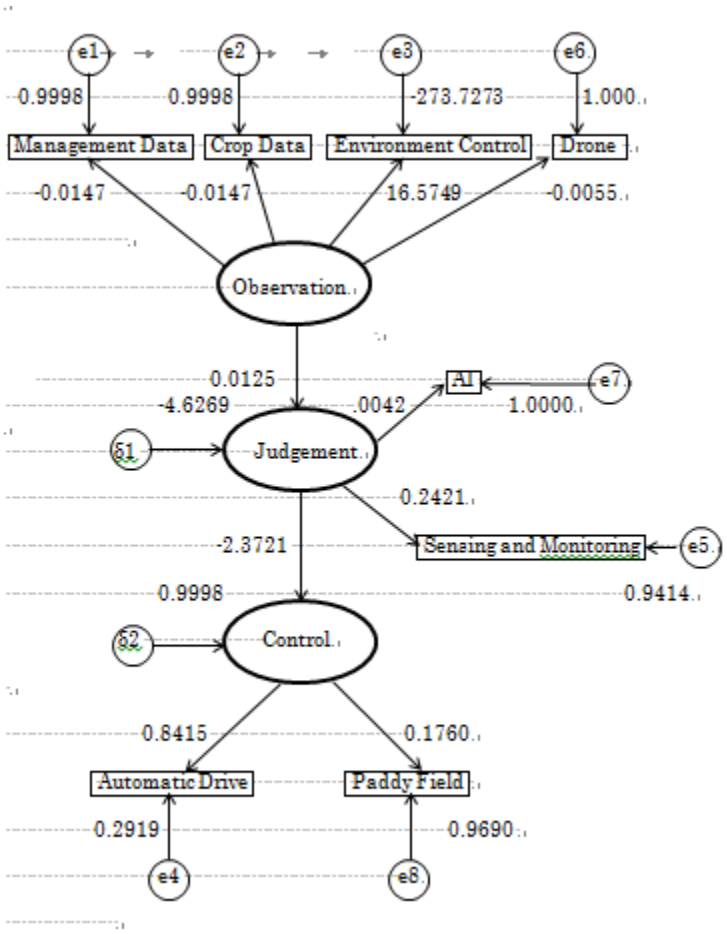


Figure 4. Result of Structural Equation Modeling on Smart Agritech Variables



Note: Model Chi square = 122.4994, Df = 16 Pr(>Chisq) = 1.813854e-18

Goodness-of-fit index = 0.8905288,

Adjusted goodness-of-fit index = 0.7536898

RMSEA index = 0.1719976, 90% CI: (0.1443057, 0.201051)

Tucker-Lewis NNFI = 0.1342125, Bentler CFI = 0.5052643

SRMR = 0.1013122, AIC = 162.4994, BIC = 35.77086

Table 1. Data-point Strategy Model

	Differentiation Strategy	Integration Strategy
Individual Data points	Providing the locals with subtle data	Aggregating the data on detailed mesh
Collective Data points	Setting the data points for a new niche	National level data points

Source: Created by authors

Table 2. Scope and granularity of big data information collection

Source		Scope		Granularity		Density	Approach
JMA	AMeDAS	All over Japan	378,000 square kilometer	1327 places	17square kilometer/place	0.004	Macro
JMA	AMeDAS	Niigata prefecture	12,580 square kilometer	46 places	17square kilometer/place	0.004	Macro
Halex Corp.	Halex Dream	All over Japan	378,000 square kilometer	37,800 places	1square kilometer/place	0.100	Macro
Niigata City	Satellite	Ajikata area	17.28 square kilometer	1 picture	0.3square kilometer/picture	0.058	Micro
SkymatiX Inc.	Drone	Farmer's field	1 hectare	200 pictures	50square meter/picture	0.020	Micro
Vegetalia Inc.	Sensor devices	Agricultural corporation's field	72 are	2 places	36are/place	0.500	Micro

Source: Created by author

Table 3. Results of Probit Analysis with Dependent Variable, D2=AI

	Estimate	Std. Error	z value	Pr(>|z|)
(Intercept)	-2.1817	0.4268	-5.112	3.19e-07 ***
C1	-4.4209	272.0016	-0.016	0.9870
C2	0.8216	0.3947	2.081	0.0374 *
C3	0.9416	0.4180	2.253	0.0243 *
C4	-0.3872	0.5729	-0.676	0.4991
C5	0.5549	0.3776	1.469	0.1417
D1	0.8990	0.4729	1.901	0.0573 .
D3	-1.0851	0.5257	-2.064	0.0390 *

Note 1: C1: Utilization of Management Data. C2: Utilization of Crop Data.
C3: Environment Control. C4: Automatic Driving/Work Reduction.
C5: Sensing/Monitoring. D1: Drone. D2: AI.
D3: Rice Production in Paddy Fields (*Suitou*, in Japanese).

Note 2: Significance is indicated by '***' 0.001, '**' 0.01, '*' 0.05, '.' 0.1.

Note 3: Residual deviance: 66.266 on 218 degrees of freedom, AIC: 82.266.

Source: Analysis by authors.

Table 4. Results of Logit Analysis with Dependent Variable, D2=AI

	Estimate	Std. Error	z value	Pr(>|z|)
(Intercept)	-3.9337	0.8519	-4.618	3.88e-06 ***
C1	-16.2766	2002.9038	-0.008	0.9935
C2	1.5517	0.7434	2.087	0.0369 *
C3	1.7677	0.8000	2.210	0.0271 *
C4	-0.9440	1.2031	-0.785	0.4327
C5	1.0769	0.7510	1.434	0.1516
D1	1.4955	0.9175	1.630	0.1031
D3	-2.0887	1.1138	-1.875	0.0607 .

Note 1: C1: Utilization of Management Data. C2: Utilization of Crop Data.
C3: Environment Control. C4: Automatic Driving/Work Reduction.
C5: Sensing/Monitoring. D1: Drone. D2: AI.
D3: Rice Production in Paddy Fields (*Suitou*, in Japanese).

Note 2: Significance is indicated by '***' 0.001, '**' 0.01, '*' 0.05, '.' 0.1.

Note 3: Residual deviance: 66.878 on 218 degrees of freedom, AIC: 82.878

Source: Analysis by authors.

Table 5. Four Types of Data-point Strategy Model

	Differentiation Strategy	Integration Strategy
Microscopic Data-points Strategy	Vegetalia: Providing the data on water level, water temperature, temperature, and humidity. Device: IoT	Halex: Subdividing the data provided by JMA into a range of 1 km square and updates it every 30 minutes. Device: AI
Macroscopic Data-points Strategy	Niigata City: participation in the Innovative Agricultural Practice Special Zone Device: Big Data	JMA: 156 weather stations throughout Japan Device: Sensor

Source: Created by authors.

Appendix Table 1. Result of Factor Analysis

	Factor1	Factor2	Factor3
C1	-0.114	0.060	-0.460
C2	0.031	-0.037	-0.430
C3	0.413	0.873	0.249
C4	-0.702	-0.206	0.678
C5	0.918	-0.371	0.123
D1	0.032	-0.215	0.052
D2	0.228	0.080	0.048
D3	-0.120	-0.086	0.069

Note: C1: Utilization of Management Data. C2: Utilization of Crop Data. C3: Environment Control. C4: Automatic Driving/Work Reduction. C5: Sensing/Monitoring. D1: Drone. D2: AI. D3: Rice Production in Paddy Fields (*Suitou*, in Japanese).

Source: Analysis by authors.

Inclusive Leadership in Homogeneous Organizations:
Management of Skilled Migrants in Japanese Companies

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Requested session format: Competitive

Inclusive Leadership in Homogeneous Organizations:

Management of Skilled Migrants in Japanese Companies

Abstract

Japanese companies have been keen to recruit young skilled migrants in recent years. Japanese companies are highly homogeneous and have been facing difficulties in managing them. Skilled migrants in homogeneous organizations are obvious minorities and tend to be assimilated rather than included. Research on cross-cultural management has paid scant attention to inclusive leadership. To demonstrate the effect of inclusive leadership on inclusion and innovative role orientation, I performed a literature review on cross-cultural management, diversity management, and organizational socialization and conducted a quantitative survey with a sample of 407 skilled migrants employed by Japanese companies. The empirical results showed that inclusive leadership affects both the inclusion and the innovative role orientation of skilled migrants. Additionally, the findings demonstrate the relationship between inclusive leadership and organizational socialization theory, which has seldom been considered. This study contributes to future research on integrating inclusive leadership in cross-cultural management and

organizational socialization. In terms of practical implications of this study, as inclusive leadership is beneficial for both skilled migrants and homogeneous organizations, companies that recruit skilled migrants should implement training for managers to improve inclusive leadership capabilities.

INTRODUCTION

Skilled migrants are defined as migrants with at least a bachelor's degree or equivalent, who have relocated to work and live abroad long-term (Cerdin, Diné, & Brewster, 2014). The international labor market for skilled migrants is highly competitive. According to *International Migration 2019* published by the United Nations, 40% of national governments have enacted policies to raise immigration levels of highly skilled workers, while 19% of national governments have policies in place to maintain current levels. Among the seven classified regions, Eastern and Southeastern Asia, which included Japan, reported the highest rate (71%) of responding "raise" to increase levels of highly skilled immigrants.

Research on workplace inclusion of skilled migrants has been increasing (Crowley-Henry, O'Connor, & Al Ariss, 2018). Crowley-Henry et al. (2018) conducted a systematic literature review of 52 papers on skilled migrant host-country career experiences in business and management studies, revealing that human resource management of skilled migrants was one of six major research themes. Zikic (2015) further demonstrated that management could be the key moderating factor in skilled migrants becoming a company's source of competitive advantage.

In terms of workplace inclusion of skilled migrants, Japan serves as an important research target. Japanese companies are often described as highly homogeneous organizations and face substantial difficulties in managing skilled migrants, while the Japanese government seeks to attract more skilled migrants.

In 2009, the Japanese government defined highly skilled foreign professionals as the high-quality and noninterchangeable human resources who are expected to promote professional labor markets for innovation of the Japanese industries through friendly competition with Japanese workers (Council for the Promotion of Acceptance of Highly Skilled Professionals, 2009). Thus, skilled migrants were expected not only to supplement Japanese labor shortages but also to trigger innovative business outcomes.

Following this official report, the new immigration policy of "Points-based Preferential Immigration Control and Residency Management Treatment for Highly Skilled Foreign Professionals" was introduced. This policy generated a new type of residential status for skilled migrants, which was called the "Highly Skilled Professional." Highly skilled professionals (type i) can stay in Japan for five years, and they can apply for an indefinite period of stay (type ii) after working for three years. Therefore, the residential status of highly skilled professional (type ii) is often called the Japanese version of the "green card."

The Japanese government's "Growth Strategy 2017" set key performance indicators for its policy on highly skilled foreign labor: 10,000 highly skilled foreign professionals by year-end 2020, and 20,000 by year-end 2022. As of December 2019, there were 14,924 residents with the status of highly skilled professionals types (i) or (ii). While the first key indicator has been met, the number of highly skilled foreigners in Japan remains a small minority compared to the total 60 million Japanese workers (Ministry of Justice, 2020).

In 2013, the Japanese government policy “The 300,000 International Students Plan” attempted to increase foreign students at Japanese universities for future skilled migrants, with a key performance indicator of 300,000 foreign students by 2020 (Nihon keizai saisei honbu, 2013). As of May 2019, there were 312,214 foreign students in Japan, including 142,691 university students (Japan Student Service Organization, 2020a). Although the policy target was met, the employment situation of foreign students remains challenging. While 70.5% of foreign undergraduate and 67.7% of foreign graduate students at Japanese universities desired to work in Japan (Japan Student Service Organization, 2019), only 41.3% and 32.6% students, respectively, obtained employment in Japan (Japan Student Service Organization, 2020b).

One reason Japanese companies are not recruiting skilled migrants is insufficient diversity management. Many Japanese companies seeking to recruit skilled migrants recognize that the greatest challenge is their inadequate capability to manage them (DISCO, 2018).

Many studies have revealed that Japanese organizations are highly homogeneous (Conrad & Meyer-Ohle, 2019; Sekiguchi, Froese, & Iguchi, 2016). Nevertheless, there has been little research on how to surmount this cultural homogeneity. The major challenge for Japanese companies is to make workplaces more inclusive for recruiting and managing migrant workers. Workplace inclusion is a crucial issue in Japan, as in most countries. Therefore, Japanese companies provide meaningful examples when considering how homogeneous organizations can transform into more inclusive ones.

This study empirically explored managerial behaviors at Japanese companies that effect the inclusion of skilled migrants. Newly hired migrants are minorities in homogeneous workplaces in terms of culture and being newcomers. Hence, this study focused on theories in Japanese human resource management, cross-cultural management, diversity management, and organizational socialization.

LITERATURE REVIEW

Japanese Human Resource Management

Traditionally, Japanese human resource management (HRM) has drawn attention from many researchers. The first phase of Japanese HRM research focused on how it was different from HRM in Western countries (Abegglen, 1958; Dore, 1973; Lincoln, Olson, & Hanada, 1978). Abegglen (1958) illustrated the most well-known concepts of Japanese HRM, including lifetime commitment, seniority-based wages, and enterprise unions as the three pillars of Japanese management.

Many studies and governmental statistics revealed that most current Japanese companies still follow the traditional Japanese HRM to some extent. Larger Japanese companies still recruit more new college graduates than people with working experience (Recruit, 2018). Government statistics in 2017 showed that 60% of respondent companies counted age or employed years for the base salary of employees, and more than 70% of respondent companies set the retirement at age 60 for employees (Ministry of Health, Labour and Welfare, 2017). Therefore, most Japanese companies still follow these traditional Japanese HRM concepts to

develop employees' skills and capabilities internally for long periods.

Japanese HRM tends to result in high homogeneity. It expects young employees to develop their skills and capabilities by "learning from failure" (Kono & Clegg, 2001). Line managers encourage subordinates to work autonomously and give feedback about failures. As such, there are no clearly defined job descriptions in Japanese HRM. Job classifications in Japanese HRM are simpler and broader than those of Western HRM (Kono & Clegg, 2001; Morishima, 1995; Pudelko, 2005).

It is not easy for managers to ensure autonomy for subordinates without clear job descriptions. The traditional solution of Japanese HRM was employee assimilation. The functions of Japanese HRM, such as recruiting new graduates, internal human resource development, and long-term employment, have been effective enablers of employee assimilation. If employees are assimilated and share the organizational mission, strategy, culture, and values, managers can easily ensure autonomy for employees. In other words, Japanese HRM traditionally preferred homogeneity to diversity, emphasizing male, Japanese employees rather than women or foreign workers.

Therefore, Japanese multinational corporations (MNCs) have difficulties transferring traditional HRM practices to local subsidiaries (Conrad & Meyer-Ohle, 2017; James & Jones, 2014; Yanadori, 2015). Conrad and Meyer-Ohle (2017) shed light on new foreign graduates in headquarters (HQs) of Japanese companies, because managing them might create a solution for Japanese MNCs to transform traditional Japanese HRM practices into more applicable practices in local subsidiaries.

Sekiguchi, Froese, and Iguchi (2016) illustrated internal internationalization as a situation in which non-Japanese employees participate in managerial decision-making in HQs of Japanese companies. Sekiguchi et al. (2016) proposed that internal internationalization at Japanese HQs should consider the concept of diversity. Internal internationalization increases both demographic and cultural diversity. Sekiguchi et al. (2016) also demonstrated that homogeneity tends to lead to in-group and out-group distinctions, where members of the in-group (Japanese) receive preferential treatment and out-group members (non-Japanese) receive disregard. Japanese HRM, characterized by homogeneity, tends to limit the recruitment of foreign workers and requires assimilation when they are hired (Conrad & Meyer-Ohle, 2019). This homogeneity increases the sense of in-groups at the workplace. Thus, the crucial challenge of Japanese HRM is to create inclusive workplaces.

Cross-cultural Management

There are two research perspectives in cross-cultural management: the distance approach and interaction approach (Adler & Aycan, 2018; Luo & Shenkar, 2011; Shenkar, 2001). The distance approach measures the differences among nations based on specific dimensions of cultural values. There are well-known studies on the distance approach, including Hofstede (1980); Hofstede, Hofstede, and Minkov (2010); House, Dorfman, Javidan, Hanges, and de Luque (2013); and Schwartz (2006).

While some scholars have indicated limitations, this cultural distance approach assumes

uniformity within a national unit (Adler & Aycan, 2018; Shenkar, 2001). In particular, it is highly possible that skilled migrants do not represent national cultures of their home countries or their working countries. Therefore, the cultural distance approach is not suitable for analyzing the inclusion of skilled migrants. Second, this approach tends to regard cultural distance as a negative phenomenon (Stahl & Tung, 2015). The cultural distance approach does not shed light on the positive outcomes of cultural diversity; however, researchers presume preferable outcomes occur if skilled migrants and other majorities work together. Several studies have suggested that cross-cultural management scholars should focus on the positive outcomes of cultural diversity (Adler & Aycan, 2018; Stahl & Tung, 2015).

The interaction approach is a newer research perspective in cross-cultural management. It emphasizes individual aspects rather than collective national culture, focusing on how individual cultural perceptions change due to encounters with people from different cultures. Shenkar (2001) shed light on encounters with people from different cultures, using a friction metaphor, "the scale and essence of the interface between interacting cultures" (Shenkar, 2001: 528). Tung and Stahl (2018) pointed out that cross-cultural interaction research should focus on the context or dynamic process how individual cultural perceptions change, and research should not regard culture as a static concept.

Therefore, the interaction approach is an appropriate fit for the current study compared to the distance approach. Managing skilled migrants in a homogeneous organization is an issue of cultural interaction. In homogeneous organizations like Japanese companies, skilled migrants tend to be

assimilated into existing organizational norms and cultures. Thus, this study focuses on how homogeneous companies can include skilled migrants in their workplaces and how they can produce positive outcomes for their firms through interactions between the majority employees and skilled migrants.

Diversity Management and Inclusive Leadership

For the cultural interaction approach, research in diversity management and inclusive leadership is valuable. As there are many definitions of workplace diversity, Mor Barak (2017) classified them into three types: narrow category-based, broad category-based, and definitions based on a conceptual rule. "Workforce diversity refers to the division of the workforce into distinctive categories that (a) have a perceived commonality within a given cultural or national context, and that (b) impact potentially harmful or beneficial employment outcomes such as job opportunities, treatment in the workplace, and promotion prospects—irrespective of job-related skills and qualifications" (Mor Barak, 2017: 129).

Workplace diversity presents both advantages and disadvantages (Bassett-Jones, 2005). While diversity can increase creativity, commitment, and job satisfaction, it can also produce discord, distrust, poor quality, and lack of customer focus due to in-groups and out-groups. Therefore, the purpose of diversity management is to increase advantages and decrease disadvantages. Skilled migrants tend to be regarded as an out-group by majority employees. To manage skilled migrants, companies must consider how to enhance the advantages and curb the disadvantages of interactions between majority and migrant

employees.

Inclusion can be a conceptual solution for diversity and migrant management. Shore et al. (2011) distinguished inclusion from assimilation based on the concepts of uniqueness and belongingness. Assimilation occurs when an "individual is treated as an insider in the work group when they conform to organizational/dominant cultural norms and downplay uniqueness," while inclusion occurs when an "individual is treated as an insider and also allowed/encouraged to retain uniqueness within the work group" (Shore et al., 2011: 1266). Mor Barak also posited that the concept of inclusion-exclusion was "the way employees experience and perceive their position in the organization relative to its 'mainstream'" (2017: 148).

These descriptions on inclusion emphasize the perceptions of minority employees. If minority employees, such as skilled migrants, could utilize individuality in their jobs, creativity at workplaces should increase. In other words, inclusion can be a solution for managing advantages and disadvantages of workplace diversity.

Hence, inclusive leadership is a key concept for inclusion in diversified workplaces. Mor Barak (2017) proposed the four behaviors of inclusive leadership based on the inclusion defined by Shore et al. (2011). Inclusion is the state in which minority employees are encouraged to retain both high uniqueness and high belongingness within the work group (Shore et al., 2011). Based on this definition of inclusion, two behaviors enhance uniqueness: "recognizes each individual's unique talents" and "promotes seeking

out different perspectives" (Mor Barak, 2017: 228). Additionally, two behaviors enhance belongingness: "creates a shared sense of purpose and common goals" and "motivates everyone to participate" (Mor Barak, 2017: 228).

There have also been empirical studies on inclusive leadership. Carmeli, Reiter-Palmon, and Ziv (2010) conceptualized inclusive leadership with three factors of a leader: openness, accessibility, and availability. Nevertheless, the empirical analysis of Carmeli et al. (2010) showed that these three hypothetical factors were aggregated in one factor. Nembhard and Edmondson (2006) analyzed 1,440 healthcare professionals in the United States and Canada with the originally developed three-item inclusive leadership scale.

Despite increasing attention to the concept of inclusive leadership, few studies have focused on inclusive leadership in cross-cultural management research. Moreover, an established scale to measure it has not been developed. Therefore, I developed an original scale of inclusive leadership to analyze whether it affects the inclusion of skilled migrants in Japanese companies.

Hypothesis 1. Inclusive leadership positively affects inclusion of skilled migrants.

Organizational Socialization

Organizational socialization is closely related to both assimilation and inclusion. Van Maanen

and Schein (1979) defined organizational socialization as “the process by which an individual acquires the social knowledge and skills necessary to assume an organizational role” (1979: 211). Following this definition, two distinct types of outcome variables were proposed: custodial and innovative role orientations (Van Maanen & Schein, 1979). Custodial orientation occurs when newcomers do not question but accept roles within the existing norms and culture of the organization. Conversely, innovative orientation occurs when newcomers bring fresh ideas into the organization to improve or redefine roles. In other words, custodial and innovative orientations relate to assimilation and inclusion respectively.

Although Van Maanen and Schein (1979) proposed two distinct role orientations, most empirical research on organizational socialization has focused on custodial orientation rather than on innovative orientation. Jones (1986) developed a well-known scale for role orientation with the assumption that custodial orientation was a positive outcome for organizations. Although scales of innovative orientation have been developed (Ashforth & Saks, 1996; West, 1987), research on innovative orientation has been limited, and the causal variables for innovative orientation have been insufficiently explored.

If skilled migrants in homogeneous organizations can follow innovative role orientation, they can leverage their uniqueness in workplaces. This inclusive adaptation further raises the possibility of innovative business outcomes. Therefore, it is worth analyzing whether inclusive leadership influences the innovative role orientation of skilled migrants, and hence, I conducted an empirical survey to analyze the relationship between inclusive leadership of Japanese managers and the innovative role orientation of

foreign employees in Japanese companies.

Hypothesis 2. Inclusive leadership positively affects innovative role orientation of skilled migrants.

In summary, following the literature review on skilled migrants in homogeneous organizations, I attempted to analyze the two relationships in this study, as illustrated in Figure 1. Given the homogeneous workplaces in Japanese companies, I investigated whether the inclusive leadership of Japanese managers affects the inclusion and innovative role orientation of skilled migrants in Japanese HQs.

Insert Figure 1 about here.

METHODS

Sample

A quantitative survey was conducted in 2018 with the cooperation of 12 large traditional Japanese companies. The survey respondents were employees who were (1) foreigners with statuses of residence such as "Highly Skilled Professional" and "Engineer/Specialist in Humanities/International

Services," (2) 35 years old or younger, and (3) recruited just after college/university graduation. I asked the companies' HR divisions to distribute the online questionnaire form to employees who met all the three requirements. The online questionnaire was developed in Japanese and English. Two other researchers in organizational psychology and I confirmed that the meanings of items were the same in the Japanese and English versions.

While the online questionnaire was distributed to 484 employees in total, 407 employees responded (response rate = 84.09%). To analyze perceptions and behaviors at the early stage after they were recruited, I excluded respondents who were long-term residents (15 or more years) from the analysis.

Following this procedure, I analyzed 347 respondents. Their average age was 27.37 years (SD=0.14), and their average time of living in Japan was 5.45 years (SD=0.18). A total of 140 respondents (40.3%) were men and 207 (59.7%) women. In terms of academic degree, 147 respondents (42.4%) received master's or doctoral degrees from Japanese universities, 83 (23.9%) received bachelor's degrees from Japanese universities, 58 (16.7%) received bachelor's degrees from foreign universities, and 53 (15.3%) received master's or doctoral degrees from foreign universities. The regions of the home nations and territories of most respondents were East and Southeast Asia. There were 203 respondents (58.5%) from China, 41 respondents (11.8%) from Korea, 15 respondents (4.3%) from Indonesia, and 13 respondents (3.7%) from Taiwan.

Measures

Inclusive leadership. I developed an original seven-item scale for inclusive leadership based on interviews with 10 pairs of foreign employees and their Japanese managers at Japanese companies. The items are shown in Table 1. I used a six-point Likert scale (1 = strongly disagree, 6 = strongly agree). As the respondents were all foreign employees at Japanese companies, this scale was measured by the foreign employees' perceptions of their managers' behaviors. Factor analysis of the seven items confirmed a single factor structure, and the reliability was sufficiently high (Cronbach's alpha = 0.90).

Insert Table 1 about here.

Assimilative leadership. I set assimilative leadership as the control variable. The two-item scale for assimilative leadership was originally developed based on an interview survey (Table 1). This used a six-point Likert scale (1 = strongly disagree, 6 = strongly agree). Factor analysis of the two items confirmed a single factor structure, and the reliability was sufficiently high (Cronbach's alpha = 0.88).

Leader interest in national culture. I developed an original two-item scale a two-item scale for leaders' interest in national culture as a control variable (Table 1). This scale used a six-point Likert scale (1 = strongly disagree, 6 = strongly agree). Factor analysis confirmed a single factor structure, and the reliability was sufficiently high (Cronbach's alpha = 0.91).

Inclusion. I used the six-item Work Group Involvement Scale developed by Mor-Barak and Cherin (1998). Following the results of the factor analysis, only one item was not separated from the other five items. Then, I excluded that item from the analysis. The scale with the remaining five items was sufficiently high (Cronbach's alpha = 0.85). I used a six-point Likert scale (1 = strongly disagree, 6 = strongly agree).

Innovative role orientation I took the six-item scale of role innovation developed by West (1987). Respondents were asked to indicate the ways in which they performed their job differently from the person(s) before them or from others doing that job in the organization. I used a four-point Likert scale (1 = completely different from others who have done it, 4 = much the same as other people who have done it). Factor analysis of the six items confirmed a single factor structure, and the reliability was sufficiently high (Cronbach's alpha = 0.88).

RESULTS

Correlations of the variables are shown in Table 2. I set the age and sex of foreign employees and their Japanese managers as control variables.

To evaluate the hypothesis shown in Figure 1, I conducted multiple regression analyses twice. The results for Hypothesis 1 are presented in Table 3 ($R^2 = 0.16$, $F = 6.90$, $p = 0.00$). Inclusive leadership alone significantly affected the inclusion of foreign employees ($\beta = 0.39$, $p = 0.00$). Thus, Hypothesis 1

was supported. The results for Hypothesis 2 are also shown in Table 3 ($R^2 = 0.11$, $F = 4.77$, $p = 0.00$). Inclusive leadership had a significant effect on the innovative role orientation of foreign employees ($\beta = 0.30$, $p = 0.00$). Thus, Hypothesis 2 was supported.

Conversely, assimilative leadership and leader interest in national culture did not have a significant effect on either the inclusion or the innovative role orientation of foreign employees. Figure 2 presents the results of the regression analyses.

Insert Table 2 about here.

Insert Table 3 about here.

Insert Figure 2 about here.

DISCUSSION

Theoretical Contribution

The findings of this study make three theoretical contributions. First, this study sheds light on inclusive leadership for the management of skilled migrants. I found that effective leadership behaviors that include skilled migrants are not assimilation or national culture approaches but are behaviors of inclusive leadership. As skilled migrants are minorities in homogeneous organizations, they tend to be assimilated. Nevertheless, if managers behave as inclusive leaders, skilled migrants can be and feel included even in homogeneous organizations. Therefore, inclusive leadership warrants additional attention as a key research topic for the interaction approach in cross-cultural management.

Second, this study bridged two theories in diversity management and organizational socialization—specifically, between inclusive leadership and innovative role orientation. The relationship between these two theories and concepts has seldom been considered. According to the findings of this study, inclusive leadership causes the innovative role orientation of skilled migrants. This means skilled migrants have the potential to boost positive outcomes, such as innovation, because they bring new perspectives and ideas to homogeneous workplaces. Thus, it is worth taking account of inclusive leadership as a causal variable of innovative role orientation in homogenous organizations in future research.

Third, this study revealed that Japanese managers can be inclusive leaders for skilled migrants. As Japanese MNCs are facing difficulties to transform traditional Japanese HRM practices into more

applicable practices in local subsidiaries, inclusive leadership can be a solution for it. Managing skilled migrants in HQs of Japanese MNCs is an effective way for Japanese managers to develop their inclusive leadership competencies. Hence, future research need to examine whether inclusive leaders can also manage effectively employees in local subsidiaries of Japanese MNCs.

Practical Implications

The findings of this study suggest that inclusive leadership is beneficial for both skilled migrants and organizations. Skilled migrants can be and feel included even in homogeneous workplaces if managers are inclusive leaders. This means that foreign workers can embrace their uniqueness in homogeneous workplaces. Additionally, organizations can obtain new perspectives and ideas for innovative business outcomes when they include skilled migrants.

Most items of inclusive leadership in this study (Table 1) concern communication between skilled migrants and their managers. This means that managers should transform their communication style to a more inclusive one. Hence, organizations should implement training seminars and workshops for managers to increase inclusive leadership capabilities. Manager training could trigger the transformation of homogeneous organizations into being more inclusive.

Limitations and Future Research

This study has three major limitations. First, I focused on Japanese companies as homogeneous organizations. Moreover, in the regression analyses, *the adjusted* R^2 was small. Empirical evaluation is necessary to determine whether the findings of this study are applicable to organizations in other countries. Future research should include scale items that are applicable to any nation and use a larger sample to obtain a larger coefficient of determination.

Second, I analyzed leadership behaviors, such as inclusive leadership, through perceptions of foreign employees. An ideal method is to measure leadership behaviors using data obtained from managers. Additionally, I could not include organizational outcomes, such as innovative business results, in the empirical analyses. Future research should include samples from both skilled migrants and managers, which would shed light on the relationship between inclusive leadership and organizational outcomes.

Third, I developed an original scale for inclusive leadership based on my prior qualitative survey of foreign employees and their Japanese managers at Japanese companies. Future research needs to confirm whether this scale of inclusive leadership is reliable in any organization.

Considering these limitations of this study, future research in cross-cultural management should shed more light on inclusive leadership to investigate how to manage skilled migrants.

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TABLE 1

Dependent variables

Inclusive leadership (Cronbach's alpha = 0.90)
My manager gives me challenging assignments for my development.
My manager arranges my assignments in order to take full advantage of my ability.
My manager believes me as an absolutely necessary employee for growth of this organization.
My manager explained to me the reason why this organization recruited me.
My manager knows my strength and weakness well.
My manager expects my development and growth.
My manager gives me advice how to be a professional.
Assimilative leadership (Cronbach's alpha = 0.88)
My manager expects me to act like Japanese employees.
My manager expects me to have the same values as Japanese employees.
Leader's interest on national culture (Cronbach's alpha = 0.91)
My manager is interested in my home country.
My manager is willing to learn about my home country.

TABLE 2

Correlations

	n	Mean	standard deviation	2		3		4		5	
				r	*p-value*	r	*p-value*	r	*p-value*	r	*p-value*
1. Inclusive leadership	278	3.97	1.01	0.02	0.79	0.57	0.00	0.39	0.00	0.21	0.00
2. Assimilative leadership	278	4.34	1.19			-0.15	0.01	0.03	0.61	0.07	0.28
3. Leader's interest in national culture	278	3.54	1.34					0.21	0.00	0.20	0.00
4. Inclusion	285	4.40	0.97							0.07	0.33
5. Innovative role orientation	232	3.19	0.66								

TABLE 3

Results of regression analyses

independent variable	Inclusion			Innovative role orientation		
adjusted R^2	0.16			0.11		
F	6.90			4.77		
p-value	0.00			0.00		
	β	*standard errors*	*p-value*	*β*	*standard errors*	*p-value*
Inclusive leadership	0.39	0.07	0.00	0.30	0.07	0.00
Assimilative leadership	0.02	0.05	0.67	0.10	0.05	0.11
Leader's interest in national culture	0.00	0.05	0.95	-0.08	0.05	0.28
Age of foreign employee	0.05	0.02	0.39	0.13	0.02	0.04
Sex of foreign employee (dummy)	0.05	0.12	0.42	-0.01	0.12	0.91
Age of Japanese manager	-0.03	0.07	0.61	-0.071	0.07	0.26
Sex of Japanese manager (dummy)	-0.02	0.23	0.74	0.09	0.23	0.14

FIGURE 1

Hypothetical model

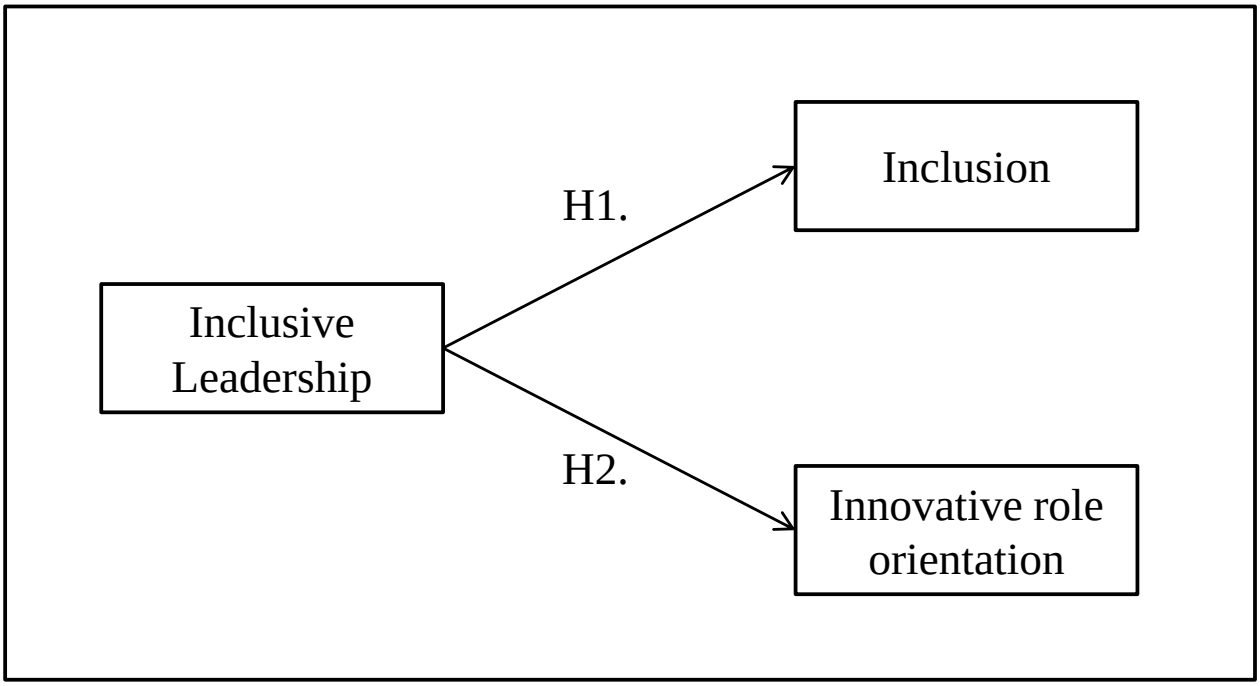
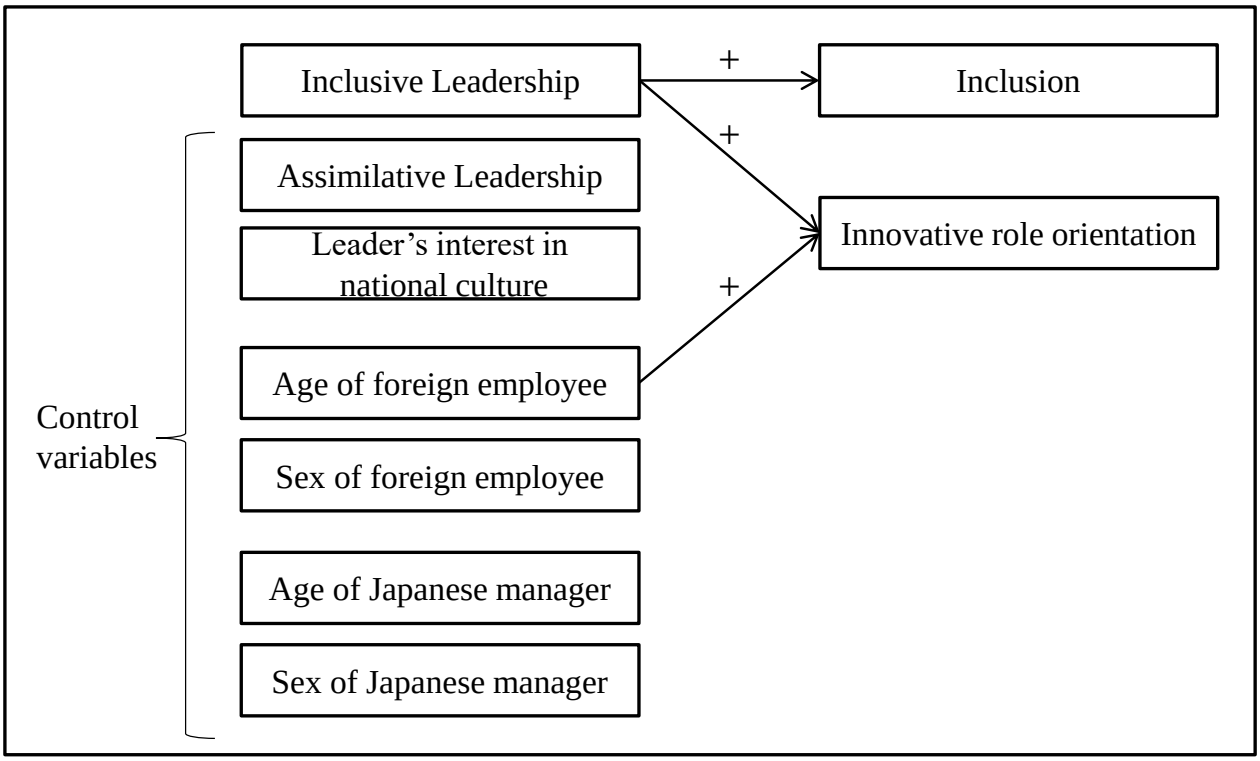


FIGURE 2

Summary of results of regression analyses



Note: Only significant paths are shown.

The characteristics of firms employing foreign managers in Japan

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Title: The characteristics of firms employing foreign managers in Japan

Abstract

The number of non-Japanese managers has been growing in Japan over the past decade. Japanese companies employing foreign managers face a number of challenges, as do the foreign managers working in these firms. However, the integration of foreign managerial talent has the potential to drive change in Japanese firms in new ways, including how they formulate and implement strategies, and how they develop and operate their overseas businesses. Given the differences in relevance of international knowledge and perspectives amongst Japanese firms and self-selection on both employer and employee (foreign manager) sides, we expect some firms to have no foreign managers, while others have many, spanning multiple levels of the organizational hierarchy. To begin to understand the phenomenon of non-Japanese managers in Japan, therefore, this early-stage research asks what kinds of firms employ non-Japanese managers.

Title: The characteristics of firms employing foreign managers in Japan

INTRODUCTION

Foreign workers and managers are playing a greater role in the Japanese economy than in the past (e.g., Ministry of Health, Labour and Welfare, 2019a). The aging of the Japanese population is often cited as a reason why foreign labor is needed in the country. However, foreign talent in Japan as a whole has also grown over the years, and a number of prominent Japanese companies have hired or promoted foreign managers to CEO positions. However, Japanese companies have often been referred to as ethnocentric, and traditional Japanese human resource practices common at larger Japanese firms are substantially different from international practices, placing barriers to effective employment of foreign managers by Japanese firms in Japan (e.g., Sekiguchi, Froese & Iguchi, 2016). In addition to these issues, cultural and linguistic barriers present substantial challenges for foreign managers in Japan. Despite these barriers and drawbacks, there are a number of reasons why Japanese firms might choose to hire foreign managerial talent, including gaining from experience in international markets, increasing diversity of the management team, representing foreign investors, following industry practice and expectations (e.g., if an industry leader starts hiring foreign managers, others may follow), and the potential that foreign managers can act as effective change agents because they are less constrained by Japanese customs.

Anecdotal information about foreign top managers in Japan has been widely reported in the Japanese popular and business press. Yet, we know relatively little about the bigger picture about the changing roles of foreign managers in Japan. As a first step in gaining a better

understanding of foreign managers in japan, we ask: What are the characteristics of firms which choose to hire foreign managerial talent? In this preliminary study, we examined firms which reported relatively high numbers of managers, officers, and executives in the Toyo Keizai CSR survey data over the period 2012 – 2018. Our sample identifies firms of varying sizes and across numerous industries employing relatively large numbers of foreign managers at one or more of four hierarchical levels. Only a small number of the firms had relatively large numbers across all four levels, while relatively many had reported a high number of managers at a single level. While our analysis is very early stage at this point, we nonetheless made some descriptive observations from the data which we believe may be interesting to students of Japanese business.

A CHANGING ENVIRONMENT FOR FOREIGN MANAGERS IN JAPAN

Data from the Japanese Ministry of Health, Labour and Welfare (2019a) show increasing involvement of foreign labor, both specialized and non-specialized, in Japan. The data show ongoing increases in the number of foreigners employed, as well as the number of business locations employing them. It also documents the large variety of industries employing foreigners in Japan. While the data show the increasing number of foreign employees and gives a breakdown by immigration status, it does not directly measure the number of foreigners holding managerial positions in Japan. However, the numbers on immigration status suggest that the number of foreign managers working in Japan is on the increase (MHLW.go.jp, 2019b).

The reasons why foreign managerial talent may be needed in Japan are numerous and have been changing (Sekiguchi, Froese & Iguchi, 2016). The demographics of the aging Japanese population have long been given as a reason why Japan needs foreign workers to support its economy (e.g., Japan Times, 2019). Changes to immigration law (immi-moj.go.jp,

ND) have facilitated the growth of the foreign workforce in Japan. As the workforce becomes more internationalized, some foreign employees may be promoted to managerial positions due to their general skills or specific ability to supervise other foreign employees. Additionally, foreign students of Japanese Universities have become a potential source of white collar employees for Japanese firms because of their education, cultural and language skills (Conrad & Meyer-Ohle, 2017; Huang, Yang & Sekiguchi, 2020).

Additionally, globalization of Japanese firms over time has provided both opportunities for identifying international talent and reason to employee it in Japan. As Japanese firms' overseas subsidiaries become more mature, it is natural that they may develop managerial talent of sufficient caliper to use in the Japanese headquarters. In some cases, acquisitions of foreign companies may have also provided access to new managerial talent. Additionally, there may be new recognition of the importance of diversity of viewpoints amongst managers (), and the potential for seasoned international talent to help improve the relationships with stakeholders including investors, and the performance of Japanese businesses at home and abroad. Finally, the sense that foreign top executives may be valuable to "shake things up" and lead changes in way that Japanese executives have often found difficult, remains a reason for interest in foreign top management talent in Japan.

Despite these reasons why foreign managerial talent may be more relevant and prominent in Japan than ever before, there are a number of well documented challenges to Japanese firms which would like to effectively employ foreign managers. Traditional Japanese human resource management practices, present barriers to effectively hiring and motivating foreign managers (Lehmberg, 2014; Rebick, 2005), and these efforts to apply Japanese HR practices in international subsidiaries have not been very successful (e.g., Rose & Kuman, 2007) and

Japanese firms have experienced difficulties attracting high potential local talent in their international subsidiaries (Foese & Kishi, 2013). Largely tenure based compensation, rather than position based compensation programs (Conrad, 2010; Hareyama, 2005), may fail to offer sufficiently attractive renumeration packages to attract and retain foreign managerial talent. Additionally, ineffective performance-based compensation schemes (e.g., Huang, Yang & Sekiguchi, 2020; Joh, 2004) may also be a problem in this regard as well. The tradition of grooming insiders to take on higher management positions may also complicate efforts to bring in managerial talent from overseas or outside of the firm. Indeed, Japanese firms have had difficulty effectively using local MBA talent (Yoshihara, Okabe & Kim, 2011) let alone international talent. While quite a bit has been written about traditional Japanese human resource practices, additional study of how firms have changed their practices to effectively manage their global workforces and foreign managers in Japan is an area requiring additional research.

Foreign managers in Japan face a number of barriers to being effective in Japanese business. Japanese management has been discussed as being ethnocentric in nature (Conrad & Meyer-Ohle, 2017; Kopp, 1994) and company socialization processes (Dore & Sako, 1989) can make it difficult for outsiders to become members of the firm. Cultural and language barriers can be quite difficult for outsiders to bridge. Some Japanese businesses have tried to reduce these barriers by making various changes, including adopting English as their official language (*lingua franca*) (Yamao & Sekiguchi, 2015). While multilingual and *lingua franca* workplaces have been studied overseas (e.g., Harzing, Köster & Magner, 2011; Luo & Shenkar, 2006; Piekkari, Vaara, Tienari & Säntti, 2005) and in Japanese subsidiaries overseas (Otsuji & Pennycook, 2011), the situation in Japanese firms appears worthy of additional attention.

Additionally, recent research suggests areas beyond language barriers need to be considered for Japanese firms to effectively recruit international employees (Huang, Yang, & Sekiguchi, 2020).

Above, we have looked at the changing context under which foreign managers appear to have become more common and also more relevant in Japanese business, as well as some observations about the barriers faced by would be employers of foreign managerial talent and foreign managers working in Japan. Moving on, what do we know about foreign managers in Japan?

Research on foreign managers in Japanese businesses in Japan appears at this point to be fairly limited. Sekiguchi, Froese & Iguchi (2016) discuss challenges to 'Internal Internationalization' of firms through integration of foreign management talent in Japan. In an examination of diversity practices in Japan, Hayashi (2017) found that Japanese firms which had high foreign shareholder ratios, high international to domestic sales ratios, and a high percentage of external directors on their boards, and were large in scale had higher levels of foreign managers and officers. Hayashi (2017) also reported manufacturing firms had a trend of hiring foreign managers which was not seen in distribution industry firms. Academic research has examined phenomena relating to human resource management of Japanese firms in international subsidiaries (recent studies include: Ando, 2016; Maharjan & Sekiguchi, 2016). From our perspective, it is interesting to note that foreign managers are becoming more relevant in Japan given considering that Japanese firms in the past tended to post Japanese expats at top positions of foreign subsidiaries (Kopp, 1994).

While searches for papers on foreign managers in Japan found limited results, foreign top managers of businesses in Japan have often been featured in the Japanese business press. Sometimes they have been positioned at in a positive light, for example, when Carlos Ghosn was

seen as turning around Nissan. Some foreign top managers have been seen as quite controversial, for example Michael Woodford for being a whistleblower at Olympus, Sarah Casanova at McDonald's Japan for her handling of a food quality and foreign materials scare, or Carlos Ghosn after he came under investigation by the Japanese government for using company funds. Others have been followed by the press but with less controversy, for example Howard Stringer, when he was CEO of Sony. Foreign managers below top management have not been widely covered in the press with a few exceptions, such Toyota's managing officer Julie Hamp's arrest for possession of oxycontin, a pain killer illegal in Japan.

It appears that the roles, performance, and prominence of foreign managers in Japan is an area that has yet to receive significant attention by researchers of Japanese business. As researchers of international business and Japanese business, we are therefore motivated to study this area.

METHODS

Sample and Data

We build our sample using a survey database of Japanese firms. Toyo Keizai Inc., a leading provider of corporate financial data and business analysis of Japanese firms, has been publishing an annual Corporate Social Responsibility (CSR) Survey (*TK CSR Survey* hereafter) since 2006. Each year Toyo Keizai administrates a survey of all public and major private Japanese corporations concerning their environmental, labor, governance, and other social practices. The response rate had steadily increased from approximately twenty percent in 2006 to over thirty-five percent in recent years. The 2018 survey, the latest edition we obtained, received valid responses from 1,143 firms.

The questionnaire employed by the *TK CSR Survey* is divided into three main categories – CSR Overall, Environment, and Workforce. The questionnaire items in the category of CSR Overall are concerned with a variety of issues, such as corporate governance, adoption of global CSR standards, employee volunteer activities, charitable giving, etc. The Environment category is mainly concerned with emission control, environment preservation, environmental accounting, etc. The Workforce category provides information on employee demographics, work-family balance policies, health and safety management, and others. Our analysis utilizes the items from the Workforce category that inquire about the demographics of managers at different ranks. The key items of theoretical interest – those concerning non-Japanese managers – first appeared in the 2012 edition. Thus, the study period of our analysis is from 2012 to 2018.

For each of the companies we identified in the TK CSR Survey sample, we gathered additional information including recent annual sales, percent of foreign shareholdings, international sales ratio, industry, etc. in an opportunistic manner from *Toyokeizi Kaishi Shikiho Fall 2019* and other sources. While our approach to gathering additional data on the firms identified in the TK SCR Survey sample is relatively rough and not perfectly synched with the study period mentioned above, we feel it is nonetheless adequate for our purposes in this preliminary, exploratory study. To reiterate, we feel that our sample from the TK CSR Survey is relatively robust, while some of the measures we added to that sample are less so. For example, although we gathered information about industry, we did not use standard industry codes, but rather made some judgements based upon each firm's categorization inside of *Shikiho* and descriptive information about the firm's business in *Shikiho* and the firm's website.

Measures

We calculated the percentage of non-Japanese executives at various managerial ranks to

identify a sample of firms with high representation of foreign managers. A series of questions in the Workforce category collect information on the number of executives by gender and by nationality at various ranks (in ascending order) – manager, general manager or higher, officer, and executives. There are three similarly worded items for each rank. More specifically, at the rank of management a responding firm would report the numbers of management positions occupied by 1] women; 2] men; and 3] non-Japanese nationals. *Non-Japanese Ratio (Management)* was then operationalized as the average number of non-Japanese nationals from 2012 to 2018 divided by the average sum of women and men at that rank over the same period. We subsequently apply the same formula to compute *Non-Japanese Ratio (General Management)*, *Non-Japanese Ratio (Officer)*, and *Non-Japanese Ratio (Executive)*.

To identify the firms with high representation of foreign managers, we select firms that are in the top five percentile of each of the four non-Japanese ratio measures. To build a better understanding of the firms in our sample, we gathered additional data from *Toyokeizai Kaisha Shikiho* (Fall 2019 issue) regarding annual sales, industry, percent of foreign ownership, and foreign sales ratio. There was no data in *Shikiho* for a number of firms in our sample, because they were subsidiaries of foreign companies and therefore not listed on Japanese markets or had been delisted. In these cases, we looked for data from other sources to help us understand our sample companies.

Comparison companies in selected industries

After examining some of the characteristics of the sample firms, we subsequently developed a list of a number of comparison firms for several select industries: Automobile manufacturing, Automobile Parts, Pharmaceuticals, and Smartphone software. We selected automobile and automobile parts industries because of their long history of exports and

internationalization. Pharmaceuticals was selected because it is a largely globalized industry. Finally, we looked at the smartphone software industry because it was relatively young, and appears to be developing internationally in interesting ways. We used the *Nikkei Gyoukai Chizu* 2016 and 2021 editions to identify prominent firms in these industries. We gathered data from the TK CSR Survey on the firms we had identified for comparison.

Research Process

In this exploratory stage of our research, we follow an approach of iteration between examining the data in our sample for patterns and hypothesizing about the firms and the underlying mechanisms at work. Therefore, at this preliminary stage, we provide some characteristics that we were able to observe about Japanese firms with comparatively many foreign managers. In our discussion and conclusion section, we introduce some of the follow-on questions which we raised in our exploration of this data.

FINDINGS

Our sample extracted from the TK CSR Survey data consisted of 176 firms. They belonged to a large variety of industries, as shown in Table 1 below. Amongst the industries with the most firms in our sample Electronics and Electrical Items, Machinery, Auto parts and Tires, and Chemicals and Petrochemicals were particularly prominent, representing roughly 37% of our sample in total.

---------- Insert Table 1 about here ----------

The sample companies ranged from very large to relatively small. The 2019 annual sales of the firms ranged from 1 billion yen to 30 trillion yen. The ten largest firms the sample in terms of 2019 sales were: Toyota, Nissan, Hitachi, Sony, Panasonic, MUFJ, Bridgestone, Fast

Retailing, Takeda, and Ricoh. The sample firms were listed in several different stock markets in Japan. Table 2 below shows that the majority were listed in Section 1 of the Tokyo Stock Exchange (TSE), but others were listed on exchanges typically for smaller firms such as Nagoya and Section 2 of the TSE, while others were listed on exchanges typically considered to be for newer or more entrepreneurial firms such as Jasdaq and TSE Mothers. It is also worth noting that a total of five of the Japanese firms in the sample were also listed on the New York Stock Exchange. They were: MUFG, Nomura Holdings, Sony, Takeda Pharmaceuticals Company, and Toyota. Thirty-six of the remaining firms were traded over the counter in US markets.

---------- Insert Table 2 about here ----------

As we mentioned in our methods section, we identified the top 5% companies of the time period in terms of each of the four measures of foreign managers. Most of the firms on our resulting list were not in the top 5% across all of the four measures. Out of the 176 total firms, 107 companies were in the top 5% for one of the four measures of foreign managers, while 44 were in the top 5% for two, 11 for three, and 14 for four. This suggests that most of the firms in our sample had a relatively large number of foreign managers in part of their hierarchy, but not consistently across levels. The fourteen firms with high levels of foreign talent across different levels of the hierarchy were: Aozora Bank, ATEAM, Baroque Japan Limited, Fostex, Ichiko Industries, Lite-On Japan, McDonald's Holdings Japan, Modec, Nissan, Nomura Holdings, Rakuten, Roland DG, Sanofi, Takeda Pharmaceuticals Company. Of these companies five firms were subsidiaries of foreign companies, including: Nissan, McDonald's Holdings Japan, Ichiko Industries, Light-on Japan, and Sanofi.[1] The remaining 9 firms are Japanese companies. Two of these were also amongst the top 10 largest firms in our sample, as discussed above.

[1] Aozora Bank was partially owned by a foreign company during part of the study period.

Interestingly, 12 of these 15 firms which were traded on Japanese exchanges. Forty-one and a half percent of the shares of these 12 firms were held by foreign shareholders, whereas the number was 20.7% for the rest of the sample firms for which data was available, as of fall 2019. Two of these Japanese firms, Nomura Holdings and Takeda Pharmaceuticals Company, were also listed on the New York Stock Exchange. Additionally, the 9 Japanese firms reported 55.3% of their sales revenues were from outside of Japan, the number for the remaining 98 firms where data was available, was 53%. Taken together, these two observations suggest that this small number of firms with foreign managers across the different levels of hierarchy were different from the others in our sample in terms of greater degrees of foreign ownership, but not in terms of the percent of the business they did overseas versus domestically.

We identified a number of other foreign firms in the rest of our sample as well. This was not surprising since many foreign firms in operating in Japan employ expatriates. Out of the 176 firms in our sample, a total of 12 were subsidiaries of foreign companies. Some, like McDonald's Japan for example, were listed on Japanese stock exchanges, while others were not. The foreign firms in the sample were: Calsonic Kansei, IBM Japan, Ichiko Industries, Idemitsu (formerly Showa Shell until merger), Lite-On Japan, McDonald's Holdings Japan, Monotaro, Nissan, Oracle Japan, Sanofi, Starbucks Coffee Japan, Universal Studios Japan. It is interesting to note that while some of these firms were established by their foreign parent companies, others became subsidiaries through mergers and acquisitions or equity injections.

We took a closer look at the firms that were amongst the top 5% in only one of the four measures. We expected there to be differences between the kinds of firms which employed lower-level foreign managers and those employing foreign top managers. This was, indeed, the case. Firms having high levels of foreign managers at lower levels were small, with 96 billion

yen in annual sales on average and had foreign shareholders ratios of 12% on average. On the other hand, firms with foreign top managers had average sales of 807 billion yen and a 52% foreign shareholding ratio, while those with foreign officers had average annual sales of 1,184 and a 50% foreign shareholding ratio.

We were interested to see if there were industry specific relationships in the data. We decided to examine four industries: automotive, auto parts, pharmaceutical, and smart phone game industries. We made lists of prominent Japanese firms in each industry and searched for them in the TK CSR Survey data. Data was available for some but not all of the comparison firms we were interested in. In the automobile industry, almost all companies reported having some foreign managers at more than one level. In the auto parts industry, roughly half of the firms reported having no foreign managers, while the other half reported having some, often at more than one level in the organizational hierarchy. The picture was similar for pharmaceuticals; however, foreign managers were more concentrated in higher management positions than was the case in auto parts. The smart phone games segment, on the other hand, reported having almost no foreign managers except for the four firms we had identified in our original sample. This is interesting in that it suggests the foreign managers in these high-tech firms may have been hired due to idiosyncratic differences in the firms, for example, the experiences of the founders.

DISCUSSION AND CONCLUSION

In this paper, we have introduced some tentative findings from our early-stage research on firms in Japan employing foreign managers. There are a number of interesting aspects of the data we examined. Few companies reported having relatively large numbers of foreign

managers across different levels of their hierarchies. Firms reporting having larger numbers of foreign managers at a single level of the hierarchy differed by which level that was. Firms having a relatively large number of lower-level foreign managers tended to be smaller in terms of sales and had lower levels of foreign shareholders than those with large numbers of foreign managers at officer or executive levels. This suggests the motivations for hiring foreign managerial talent systematically varied by the level, as might be expected from the literature on resource dependence theory (Hillman, Withers & Collins, 2009; Tolbert, 1985) and the governance literature (Boyd & Solarino, 2016; Dalziel, Gentry & Bowerman, 2011).

There also appeared to be discernable differences in the use of foreign managerial talent by industry. For example, foreign managers were relatively common across companies in the automobile manufacturing industry, while they were relatively rare at any level in the smartphone games segment. On the hand, about half of the firms we examined in the auto parts and pharmaceuticals industries reported having foreign managers, the hierarchical level they were commonly at differed between the two industries.

Considering the firms that were in our sample, we also thought it was interesting the firms that were not in it. This is true of both Japanese domestic firms and foreign firms operating in Japan.

Foreign companies actually not that prominent on the list. Perhaps we should try to go back and see how many there are in the TK CSR overall. (Are they not in the database, or, are they there and don't report having so many foreigners?)

This is a very early-stage study, in which we are trying to gather an understanding of the "lay of the land" through descriptive analysis of our initial sample. There are many limitations to this research. As we mentioned in our methods section, while the TK CSR survey and other

base data is from well-established sources, we have not followed a strict approach to standardize or synchronize it. Additionally, our sample itself is formed by an arbitrary cutoff of the top 5% in each of the four measures of foreign managers. However, we felt our approach, although rough, was suitable to this stage of our work since one of our considerations for next steps is whether to narrow down on specific cases or industries or not. Although well-established, there are limitations to the TK CSR data as relates to our study. Some firms did not respond, and for those that did, we do not know the nationalities of the foreign managers, which we believe might be of interest. Also, while we can hypothesize about the causes of some of the differences we discussed above, we do not have sufficient data at this point to go beyond that. Additional research is necessary to better understand the differences observed by industry, for example. There are a number of different potential pathways to building our understanding of foreign managers in the Japanese context. We discuss a number of these below.

As scholars of International Business, we are interested in how having foreign managers in the top management team or board might affect the firm's international organizational structure and international strategy. Having foreign managers in the top management team may reduce the perceived risks of foreign markets, leading to more resource commitment to foreign operation or less direct control of overseas entities. Does it affect, for example, the potential for acquiring overseas companies? Or does it increase the likelihood of forming non-equity international alliances? Does the tendency of close competitors to hire foreign managers affect the firm's likelihood of following suit? Does having international managers affect international sales or performance?

As students of Japanese business, we have other questions. To what extent are foreign managers hired because of a labor shortage in Japan, versus, a need to internationalize or

increase the diversity of the top management, versus, a needed source of knowledge about international business and markets, versus a role as change agents?

Given the difficulties of harmonizing a single HR system incorporating traditional Japanese and global standards, how have the Japanese firms employing foreign managers in multiple hierarchical levels adapted? What changes have Japanese firms made to successfully attract and motivate international talent? How have those changes affected the way they manage Japanese employees? How do firms hiring more foreigners differ from those hiring fewer? Are they more likely to adopt international managerial and governance practices?

The backgrounds of the foreign managers individuals also of interest. Are they global managers who the firms have adapted to successfully employ or are they foreign individuals who have been willing to adapt their expectations to work with the Japanese business culture?

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Table 1: Number of sample firms in each industry in descending order

Industry	Number of Sample Companies
Electronics and electrical items	24
Machinery	17
Auto parts and tires	13
Chemicals and petrochemicals	10
IT and IT services	8
Pharmaceuticals	8
Financial services	7
Semiconductor equipment	7
Software	7
Services	6
Restaurants	5
Apparel and shoes	4
Information	4
Internet	4
Machine tools	4
Retail	4
Wholesale	4
E-commerce	3
Entertainment	3
Agriculture and Food	3
Logistics	3
Metals and metal products	3
Professional services	3
Real estate	3
Trading companies	3
Automobiles	2
Energy, oil and gas	2
Materials	2
Medical services	2
Outsourcing services	2
Construction materials	1
Medical devices	1
Precision products	1
Waste management	1
Semiconductors	1
Transportation	1

Table 2: Primary Stock Exchange Listing

Primary Exchange	**Number of Sample Companies**
Tokyo Stock Exchange Section 1	116
Jasdaq	19
Tokyo Stock Exchange Section 2	13
Tokyo Stock Exchange Mothers	6
Nagoya Stock Exchange	2

Language strategy from the ground up: How foreign subsidiaries of Japanese MNCs choose and develop language resources in Asia

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Language strategy from the ground up: How foreign subsidiaries of Japanese MNCs choose and develop language resources in Asia

ABSTRACT

The emergent strategic perspective of language in multinational corporations (MNCs) views language diversity within MNCs network as strategic resources rather than the source of inefficiency. Although subsidiaries operating in various countries are the main source of language diversity in MNCs, and the previous studies found that diverse patterns of language practices persist despite the language policy initiated by HQs, we know little about why foreign subsidiaries choose particular functional languages and how they manage them for their local operation. To address this research gap, we conducted multiple case studies with 90 subsidiaries of Japanese MNCs in eight Asian countries. We found that in a multilingual environment that includes parent language, English, and local language as the three main language options, the subsidiaries are likely to choose their functional language by: locus of *knowledge source* determined by strategic dimensions (entry mode, target market, and function). However, *country level language capital* and *historical background* of subsidiaries distort the rational language choice based on locus of knowledge source. The subsidiaries then mobilize and allocate managerial resources to develop distinctive language resources. Based on the findings, we suggested a theoretical model that integrates strategy-oriented language choice and incremental development process of language resources in MNCs' foreign subsidiaries.

Keywords: Language strategy, foreign subsidiaries, multiple case study, Japanese MNCs, Asia

INTRODUCTION

Language diversity in MNCs can be either a source of inefficiency or a source of innovation, depending on how the language challenge is approached (Aichhorn & Puck, 2017; Brennen & Mughan, 2017). Existing studies on language in international business (IB) have been dominated by the former perspective, considering language diversity as a communicative barrier (e.g., Feely & Harzing, 2003; Piekkari, Welch & Welch, 2014). Language is defined as a human tool that is shared by the members of a speech community, through which people articulate their thoughts and ideas, communicate them to others and build social relations (Aichhorn & Puck, 2017). Based on this definition, language diversity within MNCs have been regarded as a bottleneck for organizational processes, such as knowledge transfer (Barner-Rasmussen & Björkman, 2007; Reiche, Harzing, & Pudelko, 2015; Schomaker & Zaheer, 2014). However, more recently, the latter perspective that considering language as a strategic resource has received increasing attention. Luo and Shenkar (2006) took a single largest step forward to link language and strategy in MNCs (Brannen & Mughan, 2017), stating that language is part of the MNC's international strategy, organizational structure and transnationality (Luo & Shenkar, 2006). In addition, Welch and Welch (2015; 2019) have sought to build a causal link between language resource, language strategy and internationalization.

While existing theoretical works on language strategy (Luo & Shenkar, 2006; Welch & Welch, 2015; 2019) tend to focus on the MNC-level language strategy initiated by headquarters (HQ), researchers have paid less attention to the language strategy at the foreign subsidiary level. This is a serious omission in the current literature because foreign subsidiaries are the main source of language diversity of MNCs and their use of language could influence or be influenced by the MNC-level language strategy. In their extensive review of language-related articles published in *Journal of International Business Studies*, Brannen and Mughan (2017) pointed out, "less well documented in the literature is the language mosaic of global companies seen from the ground up. Empirical work is still needed to map real language use in complex organizations to enable us to bridge the gap between policy and practice (P. 295)." This ground up approach is especially important because for most firms, the approach to language seems more an ad hoc response rather than the deliberate or planned one as

the firm expands internationally and confronts the reality of language diversity. What starts out as an ad hoc process can later be recognized as an appropriate strategy, formalizing what is already in practice (Piekkari, Welch & Welch, 2014: Welch & Welch, 2019).

Our central research question therefore explores why foreign subsidiaries choose particular languages and how they develop strategic language resources. Through answering this question, we aim to contribute to the theory development of language strategy at foreign subsidiaries. Specifically, we explore when and why MNCs' foreign subsidiaries choose a parent, local, or the third language (English), and how they manage the development process of language resource thereafter. Researchers have shown prevailing and persistent language diversity at the foreign subsidiary level, even when a common language policy is implemented by HQ (Barner-Rasmussen & Aarnio, 2011; Harzing and Pudelko, 2013, Peltokorpi and Vaara, 2012). However, the understanding of the gap between policy and practice at foreign subsidiaries has left unexplored. Given that subsidiaries are embedded in heterogeneous foreign market environments and are dealing with variety of foreign stakeholders, they are indeed the main actors to communicate with the world around the MNCs. This is why we specifically focus on subsidiaries as the unit of analysis in our study.

In this study, we used a multiple case study approach to understand both language practice and strategic objective of subsidiaries, which is hardly observable from published quantitative data. As Asian MNCs operating in neighboring Asian countries provide an excellent context to explore subsidiary language choice, we focused on the language practices of Japanese MNCs' foreign subsidiaries, and conducted the research on 90 subsidiaries located in eight Asian countries, including China, Korea, Taiwan, Thailand, Malaysia, Vietnam, Laos and India. Unlike Western MNCs that are likely to choose English in their foreign subsidiaries, Asian MNCs' language choice seems unpredictable because they face much higher level of language diversity (Harzing & Pudelko, 2013). Building on existing studies, we define subsidiary language choice as a decision of verbal and written use of language in subsidiaries' management practices such as meetings, documentation (reports), and training (Marschan-Piekkari, Welch & Welch, 1999; Peltokorpi & Vaara, 2012; Luo and Shenkar, 2006).

The current study contributes to the literature on language in MNCs and global strategy in several ways. First, this study suggested a theoretical model grounded on the empirical findings that shows sequential and longitudinal processes of language choice and the development of language resources in subsidiaries through various HRM policies. Our model advances the understanding of the process through which subsidiaries develop languages as a valuable managerial resource to perform their respective strategic objectives. Second, our findings and the theoretical model provide a meso-level perspective of language strategy of MNCs that bridges between the macro-level (i.e., the MNC-level) and the micro-level (the individual-level at subsidiaries) perspectives. By doing so, this study contributes to the deeper understanding of the MNCs' language strategy that has multiple levels of components ranging from HQ to individual employees working worldwide. Third, our findings provide empirical evidence to support the view that language diversity is an asset and potential source of competitive advantage of MNCs rather than merely a cost or translation chore, which also contributes to the global strategy literature. Although global strategy scholars have emphasized communication process and transmission channels in intra-MNC knowledge flow, language difference between foreign subsidiaries has been ignored in the discussions (Ghoshal & Bartlett, 1988; Gupta & Govindarajan, 1991; 2000). By showing the strategic significance of language at the subsidiary level, our study calls more attention on language in global strategy context. From our findings, we argue that MNCs cannot craft an operational language strategy without understanding multiple embeddedness of subsidiaries and underlying rationales of subsidiary language choice, which is implied in our title 'language strategy from the ground up'.

THEORETICAL BACKGROUND

An MNC consists of diverse and geographically dispersed subunits which encounter language barriers when communicating with their local business community as well as within their network (Luo & Shenkar, 2006). In other words, foreign subsidiaries of MNCs that operate in countries where people speak different languages are the major source of language diversity in MNCs. In most studies of language in IB, this language difference has been exclusively regarded as a source of inefficiency that causes an interunit communicative barrier (e.g., Harzing & Feely, 2008;

Marschan-Piekkari, Welch, & Welch, 1999; Tietze, 2008). This negative view of language differences is reflected in the rhetoric of the field, including a “language barrier”, an “impediment”, a “disruptive element”, and an “obstacle” (Aichhorn & Puck, 2017). Thus, the dominant research questions on language in IB have been about what kind of challenges MNCs would face due to this language diversity and how to deal with them (e.g., Harzing & Feely, 2008; Tenzer, Pudelko, & Harzing, 2014; Piekkari, Welch & Welch, 2014).

More recently, however, increasing studies shed light on the positive aspect of language diversity in MNCs (Aichhorn & Puck, 2017; Luo & Shenkar, 2006; Welch & Welch, 2015; 2019). This line of research views language diversity in MNCs as valuable resource. Luo and Shenkar (2006) conducted the pioneer work to link language and strategy in MNCs (Brannen & Mughan, 2017), clearly stating that “we view language design as a strategic tool with which to align operations with MNC strategy across the shifting multinational environments in which it operates (Luo & Shenkar, 2006: 322).” They provide a theoretical model explaining the MNC-level language strategy, highlighting “language affect strategy because subunit language design influences local responsiveness while parent language design influences global integration (Luo & Shenkar, 2006: 323).”

Welch and Welch (2015) focus more on the “evolutionary process of language resource development”, through which MNCs make an effective use of multilingual resources. Arguing that the mere adoption of corporate common language (CCL) is insufficient to cope with the diverse foreign language demands that accompany global expansion, they propose that MNCs need to develop a language operative capacity (LOC). LOC is defined as language resources that have been assembled and deployed in a context-relevant and timely manner throughout the MNE’s global network. They explain the process of LOC development, including concepts of human capital and social capital that interact with each other and contribute to develop language capital, which subsequently convert into LOC. Welch and Welch (2019) further extend the view by Welch and Welch (2015) to more strategic realm by linking internationalization and language strategy in a co-evolutionary model.

The perspectives by Luo and Shenkar (2006) and Welch and Welch (2015, 2019) consider

diverse languages inherent in MNC as an asset and potential source of competitive advantage, rather than as barriers, handicaps and costs. They indicate that the ability to make and properly execute language design decisions will affect MNC operations and performance (Luo & Shenkar, 2006). To develop language resources into utilizable manner, those scholars highlight the importance of managerial efforts to enable MNCs to function effectively as a multilingual entity. This new perspective was followed by several empirical works. First, some studies provide empirical evidence against the language design perspective by Luo and Shenkar (2006), showing that language diversity at the subsidiary level persist despite the CCL policy initiated by HQs. For example, Barner-Rasmussen and Aarnio (2011) empirically demonstrated the widespread multilingualism in MNCs at the subunit level from their investigation at 61 subsidiaries in Finland. Their findings showed that even though 90 percent of the studied MNCs have English as their official corporate language, communication in other languages is also carried out concurrently through translation. With the result, they argue that the viability of top-down 'management' or 'design' of language in MNCs may not always be the case.

Harzing and Pudelko (2013) expanded Barner-Rasmussen and Aarnio (2011)'s work to world-wide scale. Through comprehensive data collection from 817 subsidiaries in thirteen countries, they showed that how MNCs located in the various country clusters (Anglophone, Asian, Continental Europe and Nordic MNCs) make different choices in a corporate language and have different language capabilities. Their findings also confirm the findings of Barner-Rasmussen and Aarino (2011)'s that high ratio of western MNCs have their official language, mostly English, but language competencies and practices vary at the subsidiary level. Also, their comparative analysis of the four country clusters revealed the distinctively different pattern of language practice between Asian MNCs and MNCs from all other countries. That is, Asian languages are spoken most frequently in Asian MNCs while English is most frequently used in other MNCs, which highlight country idiosyncrasies.

Other studies investigated the implementation process of MNC-level language policies in subsidiaries (Kingsley, 2010; Peltokorpi & Vaara; 2012). For inxtance, Peltokorpi and Vaara (2012) adopt strategic perspective of Luo and Shenkar (2006) to understand the dynamics in the

implementation of language policies and practices in wholly owned subsidiaries. With the sample of 101 MNC subsidiaries operating in Japan, they found that language policies and practices transferred from HQ were recontextualized in four different ways (developing/locally adaptive, developing/globally integrated, established/locally adaptive, and established/globally integrated). Through this contingency model, the study highlights that language practice is closely linked with the strategic roles of subsidiaries (Bartlett & Ghoshal, 1989; Luo & Shenkar, 2006).

Taken together, whereas Luo and Shenkar (2006) and Welch and Welch's (2015, 2019) conceptual works propose the top-down and MNC-level language strategy, following empirical studies have revealed the pervasive and persistent language diversity at the subsidiary level regardless of the language policy designed by HQ. This implies that the MNC-level language strategy might not be aligned with the subsidiary-level language strategy because of contextual reasons in host countries (van den Born & Peltokorpi, 2010; Peltokorpi & Vaara, 2012). However, while most attention has been dedicated to the language strategy at the MNC level, we know little about what is going on at the subsidiary level. Therefore, we aim to clarify the rationale of the persistent language diversity in subsidiary-level from foreign subsidiaries' perspective.

METHOD

Research Design

We employed a qualitative multiple case study approach in our study due to the limited empirical studies for language strategy at the subsidiary level and to unravel explanatory mechanisms of subsidiary language choice which a single case study may not be able to achieve (Miles & Huberman, 1994; Piekkari, Welch, & Paavilainen, 2009; Yin, 2003). The target of our study was foreign subsidiaries of Japanese MNCs operating in the Asian region for the following reasons. First, because of their complexity and unpredictability in language practice, Asian MNCs operating in neighboring Asian countries provide an excellent context to explore subsidiary language choice. Previous studies revealed that English is most often designated as a corporate language in European MNCs as well as MNCs from Anglophone countries (Barner-Rasmussen and Aarnio, 2011; Harzing and Pudelko, 2013; Marschan-Piekkari, et all, 1999). Therefore, it is not very difficult to predict

subsidiaries' language choice of Western MNCs, where English use is proven to be pervasive. On the other hands, subsidiaries of Asian MNCs face more diversity in terms of language, showing lower ratio of English use and higher ratio of Asian language use (Harzing & Pudelko, 2013). This high uncertainty and diversity from the language perspective provides a suitable context to explore which language Asian MNCs' subsidiaries choose and develop relevant resources among parent language, local language, or English.

Second, the subsidiaries of Asian MNC have relatively higher decision-making authority in terms of language, thus provides a natural context to observe subsidiaries' language practice. According to Harzing and Pudelko (2013)'s survey, 47% of Asian MNCs have no corporate language, and 70% of the MNCs with a corporate language use their HQ language. Compared to Western MNCs' subsidiaries that mostly have an implemented corporate language by the HQs, Asian MNCs' subsidiaries would be more reflective and adaptive in terms of their language choice and development in a host country environment.

Third, Asian region is the major destination of Japanese MNCs. According to `Annual report of statistics on Japanese national overseas' (2018), 52,860 subsidiaries of Japanese MNCs are located in Asia, which account for almost 70% of the total 75,531 foreign subsidiaries. Among them, China is the biggest destination for Japanese MNCs, which takes 42.8% (32,349) of the total. Therefore, we believe Asian region is the most suitable context to investigate Japanese MNCs' subsidiaries.

Data Collection

We conducted an extensive field work. Interviews and observations at foreign subsidiaries are the best way to get rich contextual data on our research topic. Our main purpose was not only to identify language practices of subsidiaries but also to understand the rationales behind the choice, thus getting as rich data as possible about each subsidiary was critical.

For the interviews, we contacted the HQs of Japanese MNCs that we had built relationship in previous research projects. Second, representative Japanese MNCs' subsidiaries in each country in terms of presence, history, and business size are listed and contacted to avoid sample biases that can be caused by our first approach. Third, when we got a chance to interview a subsidiary, we requested

interviewees of the subsidiary to introduce us its sister subsidiaries in other countries (i.e., the snowballing method). When our interview request was approved, we sent a guidance to the subsidiary by e-mail in advance explaining the purpose of our interview and summary of our questionnaire. At the same time, we requested our contact person to arrange a group interview including managers of as various functions as possible: these functions included sourcing, manufacturing, engineering, general management, HR, and finance. This interview was aimed at understanding the whole picture of language practices, strategic missions, and daily operations of subsidiaries. Depending on the size of the subsidiary and availability of managers on the date of our interview, the number of interviewees in one subsidiary varied from two to nine.

We used semi-structured interview format, and each interview lasted between 60 to 180 minutes. Interviews were carried out in a meeting room of each subsidiaries, and in the case of follow-up interviews to clarify particular aspects, they were done via e-mails and telephones. To ensure the accuracy and reliability of the interview results, interview transcripts were sent to corresponding interviewees, and the accuracy of understanding by the interviewer was examined. Interview languages are mostly Japanese, and sometimes English or local language with interpreters, that are subsequently translated into Japanese language for systematic comparison. In addition to the interviews, we made a non-participant observation of their manufacturing plant, engineering/product development sites, test rooms, and offices for 30 to 90 minutes to understand operations of subsidiaries appropriately. After the data were collected, the interview and observation memos were professionally transcribed. In addition to these primary data, we collected secondary data on the subsidiaries from multiple sources (confidential documents on policies and performances provided by the subsidiaries, press release in Japan and the host countries, company's annual reports, etc.) to supplement or confirm our primary data.

The interview protocol included a wide range of questions concerning subsidiary operations and language practice. First, questions on subsidiary operations include: history, local market /competitive condition, major products/ target customers, functional development, role in the intra-MNC network, knowledge flows among headquarters and other subsidiaries, and HRM policy.

Second, questions on language practice include: everyday language use in the subsidiary (meetings and documentation), language practice since establishment, background of the language choice, communications in management groups (Japanese expatriate and local managers), and challenges or problems related to language issues. Although we developed an interview guide that contained the key concepts of interest in this study, interviews were deliberately kept open to allow interviewees to raise issues that they considered important. In total, we collected data from 90 subsidiaries in 8 Asian countries, including China (34 subsidiaries), Korea (8), Taiwan (8), Thailand (12), Malaysia (7), Vietnam (6), Laos (4), and India (11).

Data Analysis

Following the recommended practices for qualitative data analysis (Miles & Huberman, 1994), the interviews were analyzed through a process of data reduction, display, conclusion drawing, and verification. Through all this analysis process, we used qualitative data analysis computer software Nvivo 12. We followed iterative coding processes between the literature, data and emergent grounded categories (Marshall & Rossman, 2011) and proceeded in three stages. First, all transcripts of interviews and non-participant observation memos were entered as text files to NVivo 12 software and were coded based on "in vivo" words. In vivo coding uses words or short phrases from the participant's own language in the data records as codes (Miles & Huberman, 1994). For instance, one code was 'target market', (i.e., the participant used the exact words as "Our target market is the local, China market"), which was then coded as any explicitly related information (e.g., "Our primary concern is how to further expand our business with local customers."), or information that we interpreted as related (e.g., "We have more business with global customers than with Japanese customers, which is our strength."). Second, we searched for links between such first-order codes in order to merge these into categories, and then into second-order themes. We recursively moved between first-order categories and the emerging patterns discovered in our data until we formulated adequate conceptual themes, many of which were inspired by theoretical concepts reflected in the data. Third, these second-order themes were finally aggregated into three overarching higher-order dimensions: subsidiary language choice, language resource development and composition of language

resources. Our coding schemes and empirical evidence (sample quotations) are summarized in Table 2 and Table 3.

FINDINGS

Three Types of Language Usage at Subsidiaries

As the initial step of the first order coding, we classified the 90 sample subsidiaries according to the choice of their functional languages for their operations. In our research context involving Japanese MNCs' subsidiaries, there are largely three linguistic options including Japanese, English, and local languages. This is consistent with what Luo and Shenkar (2006) suggested ; the parent's language, a third language, the local language. The coding scheme of the language choice type depends on which language a subsidiary mainly uses in their internal official communications among managers (meetings, documentation, and trainings) as well as external communications (meetings and reports) with the HQ staffs. While there are many different mixed usages of these three language options, our coding revealed that those subsidiaries can be classified into three groups. One group of subsidiaries concurrently use English and Japanese language as their functional languages. We labeled this type of the functional language choice as the "EJ" type. Another group of subsidiaries use both a local language and Japanese language and interpretations are also used between these languages. We labeled this type of the functional language choice as the "LJ" type. The remaining group had a clear emphasis on Japanese language policy. We labeled this type of the functional language choice as the "JJ" type. In many subsidiaries, the language choice type is clear and distinctive, as illustrated in the following quotes:

> *(#41, EJ) "Management meetings and official documents are all in English. Some can read Japanese, but few employees can speak or understand it. Information from Japan are also documented and shared in English."*
>
> *(# 74, LJ) "We are a joint-venture company developing 10t class trucks, I-co (Japan) have 75% share and J-co (local) have 25%. In management, there are 13 Japanese expatriates and 20 managers from J-co group. Because Chinese managers cannot speak Japanese at all, we always use interpretation. We have 20 staffs employed solely for the job. Documents are*

all written in Chinese, so they translate it for Japanese expatriates. Meetings are interpreted all the time. Japanese expatriates speak Japanese, Chinese managers speak Chinese. Then it is interpreted."

(#19, JJ) "Our official language is Japanese. All directors and managers can communicate in Japanese, because the language proficiency is an important condition for promotion."

At the same time, it should be noted that there were various patterns of language practice even among subsidiaries belonging to the same language choice type (Aichhorn & Puck, 2017; Barner-Rasmussen & Aarnio, 2011; Peltokorpi & Vaara, 2012). For example, a joint venture subsidiary (#26) that manufactures commercial vehicles in Thailand have a Japanese language centric policy, but use English as well:

(#26) "Our management meeting is in Japanese, but in other situations English is also often used. When communicating with the Japan side, oral communications are in Japanese and e-mails are in English."

In these cases of simultaneous use of several languages, we coded it along with the language of a managerial meeting whether they use Japanese, English or a local language with interpreters involved. The final coding result of 90 sample subsidiaries by language choice types are summarized in Table 1.

Insert Table 1 about here

Language Choice

Strategic dimensions. The next step of the data coding and analyses identified the major predictors of subsidiary language choice. First, our analysis identified three distinctive constructs (entry mode, target market and function) that distinguishes strategic dimensions of subsidiaries as shown in Figure 1.

Insert Figures 1(a), 1(b), and 1(c) about here

The first strategic dimension is *entry mode*. Our sample subsidiaries fall into two clear-cut categories: wholly owned (WO) or joint venture (JV). Sometimes, there are cases that have changed their equity share, mostly from joint venture at the beginning to wholly owned later. In these cases, we coded the entry mode type at the time of the interview, because we believe it better reflects present management control of a subsidiary. Figure 1(a) shows the ratio of the two entry modes in subsidiaries of different language choice types. The result is contrasting between JJ/EJ subsidiaries where wholly owned is dominant (92%, 84% each) and LJ subsidiaries where joint venture takes majority (68%).

The second strategic dimension is *target market*. We set three coding schemes of a target market: local(L), global(G), and home(H). If the strategic mission of a subsidiary is to expand local market share, we coded it L, while to export to other overseas markets, coded it G. And, if a subsidiary manufacture or develops products and supplies them to home customers (Japanese OEMs) in the local market (e.g., manufacture automobile parts and supply to a Toyota's plant located in China) or export back to the home market (Japan), we coded it H. Not very rarely, a subsidiary has multiple target markets at the same time, in which cases we coded them in parallel when the percentage of each exceeds 30%. Figure 1(b) shows the percentage of *target market* of the three groups of subsidiaries with different language choice. Interestingly, the figure indicates that not only LJ-type subsidiaries (58%) but also JJ-type subsidiaries (54.2) have strong tendency of local market seekers.

The third strategic dimension is *functions*. We coded functions into three categories: product development (D), manufacturing (M), and sales/service (S). When a subsidiary has multiple functions, we coded them all. Figure 1 (c) shows the percentage of three different *functions* in each language group. The figure indicates that the majority of JJ-type subsidiaries (65.7%) have a product development function while the majority of LJ-type subsidiaries (60%) have a manufacturing function. This contrasting result implies that the function of a subsidiary influences language choice. For example, a general manager of our case #1 subsidiary mentioned that they have 44 manufacturing subsidiaries in China, and 43 of them use the local language, Chinese.

Insert Table 2 about here

Locus of knowledge source. Our analysis based on the higher-order coding revealed that the unique configuration of three strategic dimensions will result in three different locus of knowledge source; home, global or local. In this paper, we define locus of knowledge source as from where a subsidiary need to source knowledge that is most essential to perform its strategic missions. Table 2 provides empirical evidence of this construct.

The JJ type subsidiaries in our sample show quite distinctive strategic dimension as: wholly owned subsidiaries (92%), targeting local market (52.2%) and home market (31.4%) with product development function (65.7%). In order to perform this strategic mission, the interviewees in JJ-type subsidiaries highlighted communication and linkage with Japan HQs or Japanese customers, meaning their locus of knowledge source is home country. For example, as shown in quotations in Table 2, they stress the importance of communicating in the parent language to transfer tacit knowledge, expressed as ‘a way of thinking’, ‘a mindset’, or ‘subtle nuance’.

The EJ-type subsidiaries in our sample show a mixed strategic characteristic as; wholly owned subsidiaries (84%), targeting various markets with various functions. The distinctive difference of EJ-type subsidiary is of their emphasis on global customers and global networks, where their knowledge source highly depends on. To take an example of subsidiaries in China, some subsidiaries have strong business focus on global companies operating in China market, and others are highly embedded in their global networks that have a strong business orientation in Europe and America. Thus, getting necessary information / knowledge through communicating with these global customers and other subsidiaries in the networks is critical for EJ-type subsidiaries to deliver their strategic mission.

The LJ type subsidiaries in our sample tend to be joint venture subsidiaries (68%), targeting local markets (58%) with manufacturing function (60%). In general, LJ-type subsidiaries are either joint-venture subsidiaries where coordination with local partners is critical or highly localized

subsidiaries in terms of sales and customers. Therefore, their knowledge source depends highly on local partners and customers who have critical share of information/ knowledge for their successful operations and performance in the market.

Country level language capital. While the locus of knowledge source based on strategic dimensions of subsidiaries provides the rational ground of subsidiary language choice, we identified two factors that distort the rational language choice. First, our analysis suggests that the country level language capital (Konara & Wei, 2019), specifically parent language human resource endowment in a host country, serves as a major boundary condition for the language choice based on locus of knowledge source. Country level language capital is defined as a form of capital engendered from a country's language resources (Konara & Wei, 2019). In our research context, how many Japanese language learners a host country retains influences subsidiary language choice, because Japanese language learners are unevenly distributed in the world compared with English learners.

Insert Figure 2 about here

Figure 2 shows the percentage of the subsidiary types (JJ, EJ, and LJ) in eight Asian countries. The figure shows a distinctive pattern of language choice among subsidiaries located in the eight Asian countries. Whereas most of JJ type subsidiaries are in three East Asian countries (China, Korea, Taiwan), most EJ type subsidiaries are in the other five Asian countries (Thailand, Malaysia, Vietnam, Laos and India). In the case of Japanese language, the pattern shown in Figure 2 can be explained by the number of Japanese language learners, which is strongly influenced by historical, cultural and economic relationship with Japan as well as linguistic relatedness among East Asian languages (Schomaker & Zaheer, 2014). For example, according to Japan Foundation (2017), East Asia takes up 48.2% of 3.6 million Japanese language learners around the world. As almost half of Japanese language learners in the world are concentrated in the region, subsidiaries of Japanese MNCs have relatively broader language options in China, Korea and Taiwan, including Japanese, English or local languages. Other Asian countries such as Thailand, Malaysia, Vietnam, Laos and

India have a relatively small number of Japanese language learners. Thus, it seems that most subsidiaries in these countries are more likely to choose their functional languages from English and local languages with interpretation.

The above finding highlights that a choice of functional language(s) in a subsidiary is highly bounded by linguistic environment of the host country. It also contradicts with the previous literature and a wild-spread belief that Japanese MNCs predominantly use Japanese language in their foreign subsidiaries. For example, referring Yoshihara (1999), Harzing and Pudelko (2013) mention that Japanese MNC's international HRM strategy is understood as 'management by Japanese' and 'management in Japanese language'. Likewise, Luo and Shenkar, (2006) argue that Japanese MNCs are known to insist on using their home language throughout their operations, largely because of their tradition and culture, for example, their high need for control. Contrary to these stereotypes, our data show that even in Asian region where 80% of Japanese language learners are distributed, only subsidiaries in three East Asia countries (China, Taiwan, Korea) can be managed using Japanese language. The previous literatures might be based on the outdated data of Japanese MNCs in 1980s ~1990s, which does not reflect changes of their global management for these 20 years.

Historical background. The second factor that distorts rational language choice based on locus of knowledge source is historical background of subsidiaries. In the context of Japanese MNCs, M&A or joint venture with Western MNCs result in EJ-type subsidiaries even after the partnership with Western MNCs has ended. For instance, the case #32 is a unit that develops office machineries, which was established by an American MNC in 1987, then acquired by a Japanese MNC in 2000. Similarly, the case #39, a plant in Thailand that manufactures communicative devices, was transferred from China to Thailand in 2005 and originally was a joint venture with a Swedish MNC. In these cases, English has been established as a de facto standard language due to the historical background.

To summarize, subsidiary language choice can be understood as the joint outcome of locus of knowledge source, country level language capital, and historical background. Although locus of knowledge source guides rational language choice of a subsidiary, country level language capital (how many Japanese language learners a host country retains) and the historical background of a

subsidiary restrain the subsidiaries from choosing the rational functional language for their strategic mission.

Language Resource Development

Consistent with Welch and Welch (2016), the initial language choice is followed by the development of relevant language resource through various HRM practices as describe below.

HRM Practices. A language chosen in the early stage of subsidiary establishment is developed into an idiosyncratic language resource through various HRM practices. From our data, we identified five language-related HRM practices including personnel selection, training, financial incentives, promotion, and inpatriation. Table 3 shows example interview quotes about the five HRM practices.

Insert Table 3 about here

There are notable differences across three types of subsidiaries with different language choice in terms of the use of these language-related HRM practices. The JJ-type subsidiaries make the most intensive use of all the five practices. When recruiting and selecting new employees, some subsidiaries target talents who studied in Japanese universities or worked in another Japanese companies. Others set Japanese language fluency as an essential or desirable condition for a successful applicant. Once hired, the JJ-type subsidiaries encourage their local employees to further develop their Japanese language skills by providing language trainings and financial incentives. Many JJ-type subsidiaries provide in-house Japanese language trainings to their employees on a regular basis, e.g., twice a week or two hours a day. A financial incentive given to the higher level of JLPT (Japanese Language Proficiency Test) holders is a common practice among JJ-type subsidiaries. For example, 500 Chinese RMB are awarded to whom passed N1 (the highest level) of JLPT (#8). At the same time, a high level of Japanese language proficiency equivalent to N1 is required to be promoted to a managerial level, which is the biggest motivation for ambitious local employees. A further interesting observation is a very active use of long-term inpatriation in the JJ-type subsidiaries. The

subsidiaries commonly send their local employees (mostly engineers) to Japanese HQs on a regular basis (every year) for 1 to 3 years. Although the primary purpose of the inpatriation is for obtaining technical skills, the inpatriates' Japanese language skill is improved during the inpatriation. In most of the JJ-type subsidiaries, the local employees who experience inpatriation tend to be promoted to the top and middle managerial positions.

Compared with the JJ-type subsidiaries, the EJ-type subsidiaries have less language-related HRM practices. Their practices are mostly limited to employee selection and inpatriation. Most of the EJ-type subsidiaries have a selection policy in which successful applicants should have 'English or Japanese' fluency. This language policy enables them to approach a wider pool of local talents than the JJ-type subsidiaries because there are more English learners than Japanese learners in most countries. Also, as illustrated in Table 3, the EJ-type subsidiaries tend to deal with various customers and products, which require talents with fluency in various languages. However, although they do not stick with Japanese language fluency at the selection stage, many EJ-type subsidiaries send their employees (mostly engineers) to Japanese HQs for 1 to 3 years and expect them to learn technical knowledge and Japanese language. This inpatriation practice is very similar to that of the JJ-type subsidiaries, except for the fact that those who become fluent in Japanese may not get a ticket to be promoted to top and middle management positions at the subsidiaries.

As for the LJ-type subsidiaries, we could not find any intentional language-related HRM policy. Although many LJ-type subsidiaries also have inpatriation, sending manufacturing engineers/staffs to Japanese HQ for a short-term period (mostly 3 to 6 months), they seem to consider language learning as a mere by-product of the functional training in Japan. For instance, one interviewee expressed it as 'they pick up some simple Japanese words', from which we can interpret that the LJ-type subsidiaries do not expect their inpatriates to improve their Japanese language skills through inpatriation as the JJ-type and the EJ-type subsidiaries do. In contrast, some LJ subsidiaries have Japanese expatriates who train themselves to learn local languages. For example, one Japanese expatriate in the case # 75 mentioned that:

(#75) "Japanese expatriates get 30 hours' Chinese language education before coming to

China. We try to communicate with employees in Chinese language even though our proficiency level is very low. It takes time, but anyway we try to communicate in local language with Chinese managers."

A further noteworthy observation is an unintentional and emergent human resource growth in the LJ-type subsidiaries. Most of the LJ-type subsidiaries hire interpreters for communication between local managers and Japanese expatriate. These interpreters who were initially hired solely for interpretation gradually acquire various task-related knowledge in the process of their works, and some of them are promoted to a manager after many years of working as an interpreter. The following quote exemplify this;

(#81) "Chinese language is main, and we always use interpretations. Some interpreters who have worked here from the beginning are promoted to managers now. Because, they have interpretation experiences in various situations and have lots of knowledge about our local business. As a result, about a half of our managers [who were former interpreters] can speak Japanese."

To summarize, the JJ, EJ, and LJ-type subsidiaries show different approaches of language resource development. The JJ-type subsidiaries use various HRM practices most intensively, while the EJ-type subsidiaries show moderate efforts in recruitment and inpatriation. Meanwhile, the LJ-type subsidiaries have no intentional HRM or other policies to develop language resources but result in growth of local managers born out of former interpreters. Our findings support and extend findings of previous studies that focused on language-sensitive recruitment and language training as a key HRM practice to enhance employee ability to transfer knowledge in MNCs (Lester, 1994; Peltokorpi & Vaara, 2014; Peltokorpi, 2017).

The Characteristic of Language Resources. Our data suggests that, through practicing the above-mentioned HRM policies over years, subsidiaries develop an idiosyncratic language resource. However, not all the subsidiaries in our samples could develop a distinctive language resource. Rather, it depends on its initial language choice and subsequent managerial efforts through HRM practices.

The characteristic of language resources at the established JJ-type subsidiaries with a strict Japanese language policy emphasize ‘strong internal linkage’ and function as the right-hand person of the Japanese HQs. As these subsidiaries have local managers in higher positions, many of whom experienced inpatriation in Japan and worked for a long time with HQ staffs, they know how to coordinate with staffs in HQ and other foreign subsidiaries very well. Therefore, the JJ-type subsidiaries have a distinctive strength in terms of internal network linkage compared with the EJ-type or the LJ-type subsidiaries. As described in Table 2, they are advantageous to take over the knowledge-intensive and high value-added tasks such as product development or manufacturing of high-end products, because it demands tacit knowledge understanding and frequent communication with HQ. One of our interviewees in China (case #11) mentioned their strength as:

> *(#11) “Unlike other English-based foreign subsidiaries in India, Singapore and America, we are the only subsidiary using Japanese as an official language. That is our weapon. Documentation and meetings are all in Japanese of course. Our local managers talk to Japan HQ everyday using Teleconference system.”*

One subsidiary in Korea (case #19) launched a ‘Japanese language only policy for the whole employees’ around 2000 to absorb knowledge from Japan HQ, which is an exceptional and extreme case in our samples. At the time of the interview (2015), 292 (78.8%) of their employees have N1, N2, and N3 of JLPT, as a result of inhouse language training and successive inpatriation to Japan. This language policy and managerial efforts resulted in unprecedented speed of growth at the subsidiary: highest level of manufacturing quality among their global network of 35 subsidiaries, and newly launching product development function since around 2010. Moreover, language choice affects a perceived psychological distance between HQ and subsidiary, as shown in the symbolic quote from the interview of the case #1:

> *(#1) “A sense of belonging [to the network] is absolutely different between foreign subsidiaries using English and Japanese.”*

The characteristic of language resources at the EJ-type subsidiaries is ‘high flexibility’. Their mixed use of English, Japanese and local languages enable them to effectively respond to

various customers depending on products or projects. Figure 2 (b) also shows that the EJ-type subsidiaries' target market is more diverse than that of the JJ-type or the LJ-type subsidiaries. The quotations of case #28, #31, #35 in table 2 illustrate the EJ-type subsidiaries' multilingual competence.

The characteristic of language resources at the LJ-type subsidiaries is 'high local embeddedness'. For example, one expatriate manager of the case #80 mentioned their increasing share of local business as;

> *(#80) "When we started our business in China in 1989, most of our customers were Japanese automobile companies. Now [in 2011], more than 70% of our sales come from local customers, and we expect this number will keep increase."*

Similarly, many LJ-type subsidiaries' ratio of local sales takes more than 70% of its total sales (e.g., #71, #72, #81), and have expanded their business to various local OEMs in the case of automobile and electronic suppliers (e.g., #69, #70, #71, #73).

Toward an Integrative Model of Subsidiary Language Choice and Language Resource Development

The findings of our multiple case study can be best summarized by the following integrative model that explains how foreign subsidiaries of Japanese MNCs choose and develop their language resources in Asia (Figure 3).

Insert Figure 3 about here

In our model, *locus of knowledge resource* that are determined by strategic dimensions is the main constructs guiding subsidiary language choice. Sample subsidiaries in China provide good evidence to illuminate this construct, as they choose three different types of language in the same country (Fig 1). For instance, subsidiaries focusing on a product development function enter the market by establishing a wholly owned unit and tend to choose JJ-type (e.g., #2, #7, #9, #10, #14 of Table 1), while subsidiaries focusing on manufacturing function enter the market by joint venture and

tend to choose LJ-types (e.g., # 69, #70, #72, #80, #81 of Table 1). To accomplish their respective strategic mission, the former group of subsidiaries depend more on HQ knowledge and experience, while the latter group of subsidiaries focus more on interactions and communications with local partner and customers (Table 2). Therefore, not individual strategic dimension but primary knowledge source that a subsidiary needs most to stay tuned in order to perform its strategic mission affects its language choice.

, However, at the same time, 'country level language capital' and 'historical background' constrains or distorts the rational language choice based on locus of knowledge source. Country level language capital can be a powerful force in subsidiary language choice because it decides which language options a subsidiary has in a host country as relevant language resources at the interface between MNCs and the host country (Konara & Wei, 2019). Among our samples in eight Asian countries, the three East Asia countries (China, Korea, Taiwan) provide three languages options (Japanese, English or local language), while the other five countries (Thailand, Malaysia, Vietnam, Laos and India) provide only two options (English or local language). Therefore, a subsidiary cannot always choose the optimal language for its efficient knowledge sourcing due to limited language options in a host country, as shown in the above mentioned five Asian countries in Figure 2.

After the initial language choice, subsidiaries develop distinctive language resource through various HRM practices. We could observe subsidiaries in various stages of language choice and development in our samples. For example, a subsidiary with a short history like # 4, which was established in 2018 (the same year of our interview), was in an early phase of language choice. They had set a clear JJ-type language policy and was recruiting and selecting manager-level talents with Japanese fluency from other Japanese companies. On the other hand, subsidiaries with longer history (10-40 years) are in a more advanced phase of language resource development as a result of 'planned HRM policies' in JJ- and EJ-type subsidiaries and 'emergent human resource growth' in LJ-type subsidiaries.' Not all, but many sample subsidiaries that had set a clear language-related strategy from their establishment are observed to have developed distinctive set of language resources over time. These characteristics of language resource of subsidiaries become a critical consideration when HQ

allocates tasks and resources. For instance, the case #3 (China), # 17 (Korea), # 23 (Taiwan) of JJ type, and #33 (China), #66 (India), #67 (India) of EJ-type are foreign subsidiaries of a same Japanese automobile supplier that has more than 120 foreign subsidiaries worldwide. Japan HQ of this MNC use the term 'Japanese language subsidiaries' and 'English language subsidiaries' to distinguish subsidiaries of different language use. Because when HQ allocate projects, products, and customers to subsidiaries and design division of labor among them, the language resource a subsidiary retains is of one of the central considerations for a decision making.

DISCUSSION

The current study explores underlying rationale of subsidiaries' language choice in the context of 90 Japanese MNCs' subsidiaries in eight Asian countries. Our findings show that language management at the subsidiary level includes both strategy-oriented language choice and incremental development process of language resources. Through these sequential processes, subsidiaries build a distinctive language resource.

Implications for Theory

Our study makes four theoretical contributions in the literature of language in IB and global strategy. First, our findings have significant implications for the theory development of language choice and language resource development at the subsidiary level. Given that theory development from the subsidiary perspective has been limited (Meyer, Li, & Schotter, 2020), we contribute to international business (IB) literature by providing empirical grounds to build language-based theory at the subsidiary level. Through the model, our study integrates the two related but separate discussions of Luo and Shenkar (2006) and Welch and Welch (2015) by showing that how Luo and Shenkar (2006)'s static and macro perspective on the language design and Welch and Welch (2015)'s dynamic and micro view on the language resource development are combined in a real practice. Specifically, we provide more nuanced understanding and develop Luo and Shenkar (2006)'s framework by demonstrating not only individual strategic dimension of subsidiaries but also the locus of knowledge source, which is determined by combinative consideration of subsidiary missions, matter for subsidiary language choice. In addition, our study extends Welch and Welch (2015)'s conceptual

discussion of the “evolutionary process of language resource” in MNCs to a subsidiary level. Specifically, we identified five HRM policies through which subsidiaries incrementally build necessary language resource. Taken together, our theoretical model provides a useful platform to integrate previously independent discussions for future studies. At the same time, by providing concrete examples of the constructs in the conceptual models, we show how the conceptual argument might actually be applied to the empirical setting (Siggelkow, 2007).

Although our theoretical model is drawn from a specific context, Japanese MNCs’ foreign subsidiaries in Asian countries, our model has the potential to be generalizable to other settings as well if foreign subsidiaries can choose their functional language without imposed common language policy from HQ. We expect that our model can be applied to MNCs from non-English native countries. Because, considering the spread of English as the dominant business language (Tietze, 2008), MNCs from English native countries are less likely to be influenced by country level language capital, thus likely to choose English in most of their subsidiaries. Also, an MNC’s global strategy would influence subsidiary language choice, which is not included in our model. As we focused on

a homogeneous MNC group, Japanese MNCs, that take similar approaches in their global strategy, the subsequent model does not show how HQ’s strategic differences influence subsidiary language choice. Therefore, to further generalize our model, how the different strategic approaches of HQ influence the locus of knowledge source at the subsidiary level need to be considered.

Not only the language choice but also the language resource development through HRM practices can be generalized in a broader context. Our findings show that the width and intensity of language-related HRM practices increase when the parents’ language is chosen at subsidiaries. When applying this finding to other contexts, however, language distance between parent and local language should also be considered. We suppose that the more distant language distance between parent and local language is, the more width and intensity of language-related HRM practices would be required at the subsidiary level in order to develop intended language resource.

Second, more broadly, our findings and the theoretical model bridge discussions on language strategy on MNC level and subsidiary level, through which provides a fertile ground to further develop related theories. Previous studies on MNCs' language strategy have either corporate level macro perspective (e.g., Luo & Shenkar, 2006; Welch & Welch, 2015; 2019) or subsidiary/individual level micro perspective (e.g., Barner-Rasmussen & Björkman, 2007; Peltokorpi, 2017; Peltokorpi & Yamao, 2017), without much attention to how different perspectives are interrelated. One of the distinguished natures of MNC subsidiaries is multiple embeddedness as they are part of both the MNC and the host economy (Meyer, Li, & Schotter, 2020). Therefore, language strategy at MNC level as well as subsidiary level need to be closely linked with each other, for which our theoretical model provides multi-level implications. By incorporating our theoretical findings of meso perspective, studies on corporate level language strategy can extend their view into subsidiary level realities and cultivate a better understanding of what effective MNC level language strategy would be. At the same time, studies on subsidiaries/individual level language practices can benefit from our theoretical findings that facilitate to pay more attention to the linkage within MNC network as well as external business environment in host countries. This dynamic interaction would promote coevolutionary process of macro-meso-micro level of studies, which will further deepen our understanding on language strategy of MNCs.

Third, by providing concrete evidence on subsidiaries' language choice directed to deliver different strategic missions, our study supports the recent view that language diversity reside in global network of MNCs can be valuable strategic resource. What has been written on headquarters-subsidiary communication takes the perspective of HQ, and CCL or language standardization is a reflection of such an orientation: a tool to assist reporting and information flow as part of managerial control (Piekkar, Welch, & Welch, 2014). Our study sheds light on the perspective of foreign subsidiaries, through which contributes to broaden the existing discussions on MNCs' language strategy. MNCs as differentiated networks have subsidiaries of various strategic missions embedded in diverse host country environments (Bartlett, Ghoshal & Birkinshaw, 2004; Ghoshal & Nohria, 1989, 1997). By specializing in different functions, products, and market segments, foreign

subsidiaries dedicate to the global operations of the MNC (Pearce, 1992; Birkinshaw & Morrison, 1995). In order to deliver this specialized strategic mission, subsidiaries need to attract knowledge from diverse entities such as HQ, customers, suppliers and partners (Almeida & Phene, 2004; Minbaeva, Pedersen, Björkman, Fey, & Park, 2003). As language is a basic tool for knowledge attraction and assimilation (Welch & Welch, 2008), the knowledge inflow would be facilitated when a subsidiary can choose an optimal language to deliver its mission. Although a series of empirical studies clarified the gap between the language policy imposed by HQ and language practices in subsidiary level (Barner-Rasmussen & Aarnio, 2011: Harzing & Pudelko, 2013), little is known about *why* subsidiaries choose different languages. In addition, while some studies found that pervasive and persistent linguistic diversity at the subsidiary level is caused by contextual reasons in host countries (van den Born & Peltokorpi, 2010; Peltokorpi & Vaara, 2012), the local context is too roughly conceptualized to seize differences in strategic missions of subsidiaries. Building on these studies, our findings further clarify the underlying rationale of subsidiary language choice that provides evidence of how various language options are aligned with strategic missions at the subsidiary level.

Fourth, our findings contribute to global strategy literature by highlighting the significance of language in subsidiary management, about which scholars have given little attention. Although global strategy scholars have emphasized communication processes and transmission channels in intra-MNC knowledge flow, language differences between subsidiaries have been ignored in the discussions (e.g., Argote, McEvily, & Reagans, 2003; Bresman, Birkinshaw & Nobel, 1999; Ghoshal & Bartlett, 1988; Gupta & Govindarajan, 1991; 2000). For instance, Ghoshal and Bartlett (1988) empirically demonstrated that in the domain of MNCs, knowledge flows cannot occur without the existence of transmission channels. Also, scholars of communication theory clarified various dimensions of the transmission channels such as informality, openness and density (Daft & Lengel, 1986; Gupta & Govindarajan, 1991; 2000). For example, Gupta and Govindarajan (2000) conceptualized knowledge flows to be function of the following five factors: (1) value of the source unit's knowledge stock, (2) motivational disposition of the source unit, (3) existence and richness of transmission channels, (4) motivational disposition of the target unit, and (5) absorptive capacity of

the target unit. Surprisingly, however, the existing studies did not consider language differences between objective units even in the context of MNCs (Schomaker & Zaheer, 2014; Peltokorpi & Vaara, 2014). As a result, literature of global strategy, especially that of knowledge-based view of the firm and language in IB have been developed separately, despite of the fact that both literatures share the same interest in intra-MNC communication and knowledge transfer. Welch and Welch (2008) argued that language exert a broad array of influences on international knowledge transfer in such aspects as cost, transfer medium, teams, social networks, trust, staff movements and motivations. By showing language choice at the subsidiary level is highly related to knowledge transfer and subsidiary strategy, our study calls more attention on language in global strategy research.

Managerial Implications

Along with these theoretical contributions, our study has important practical implications as well. First, our findings provide important insights to MNCs managers when they consider language strategy. For instance, strongly influenced by 'global companies speak English' discussions (Neeley, 2012; 2017), increasing number of Japanese MNCs seem to follow the fashion (Yamao & Sekiguchi, 2015). Due to the overwhelming negative perspectives on language diversity in MNCs in previous studies, the value of it has long been neglected. Our findings thus help practitioners to take a balance between dark and bright side of language diversity in MNCs' network. Specifically, we suggest that when subsidiaries' language choice and language resource development are well aligned with strategic missions of each subsidiary, it can be a strong tool for sourcing critical information and knowledge and building diversified communication channels between an MNC and the world around it.

Second, to be more specific, our findings from the rich dataset provide practical references when subsidiaries initially choose a language. In fact, some of our interviewees mentioned about the difficulties of language choice, because they had no prior knowledge about it. Thus, some of the sample subsidiaries switched their language policy after trials and errors, that resulted in confusion and misunderstanding among staffs. In order to avoid this kind of unnecessary costs, our findings suggest that they need to consider two factors seriously when choosing a language: a subsidiary' strategic missions and a major knowledge source that is most needed to accomplish the mission. In

other words, to which direction a subsidiary needs and wants to build the closest communication channel guides the language choice of subsidiaries.

Third, at the same time, our findings on the language resource development provide subsidiary managers concrete ideas how to manage their language in the long-term. For example, the five HRM practices presented in our finding section can be a useful reference when planning a future direction of language resource development. Also, in the case of subsidiaries choosing a local language, the emergent human resource growth in our samples can be planned or managed for a better result.

Limitations and Suggestions for Future Research

Despite of its important contributions, our study has a number of limitations that call for future study. First, while our data analysis result in several important constructs to build a theoretical model of subsidiary language choice and language resource development, future studies need to explore other constructs to develop the model. For instance, difference in MNCs' global strategic approaches and HRM localization policy, language distance, and host country institutions might be considered in the research design of future empirical studies. To further generalize our findings and theoretical model, a comparative study of Asian and Western MNCs' subsidiaries that have different approaches in their global strategy and HRM localization policy would add interesting insights. Although our study is limited to Japanese MNCs' Asian subsidiaries, we believe our model will provide a ground for following empirical works.

Second, our findings on subsidiary language choice can be supplemented with other types of data in future studies. In this study, the research design focused on collecting as much data as possible to understand the overall tendency of subsidiary language choice, in which our findings are mainly based on ex-post interviews and observations. In other words, interviewing the decision makers of subsidiary language choice was available in only small numbers of samples that has been established relatively recently. Therefore, our findings need to be consolidated with real-time data collection on the process of decision making on subsidiary language choice. Third, our argument on the strategic value of language diversity in the MNC networks can be further reinforced by considering the

perspective of subsidiary performance that is affected by language choice and language resource development. We suggest three research designs. (a) A longitudinal study on how different language choice and composition of language resource affect the path of subsidiary growth and evolution would be worth investigating. Because a set of language resources a subsidiary retains would play a role in the recognition and exploitation of business opportunities (Hurmerinta, Nummela, & Paavilainen-Mäntymäki, 2015), it might have various influence on the direction of subsidiary capability building (Birkinshaw & Hood, 1998). We observed that subsidiaries of one MNC choose different languages even in the same country (e.g., case #4, #9, #35 of Table 1). Longitudinal comparative research design on these subsidiaries would illuminate how different language choice of subsidiaries result in difference in subsidiary capability building or resource allocation from HQ. (b) A comparative research design on two groups of subsidiaries that choose language by locus of knowledge source on one hand and by country level language capital on the other hand, would further clarify how language choice influence knowledge flow at the subsidiary level. We expect that subsidiaries that chose language based on the locus of knowledge resource will show better performance in terms of accomplishing their strategic mission compared with subsidiaries that chose language by country level language capital. However, the latter group might also devise various complementary approaches to overcome the misalignment between their strategic mission and language choice. Therefore, a systematic comparative study can further illuminate the relationship among language choice, knowledge flow, and subsidiary performance. (c) A comparative research design on two groups of subsidiaries, subsidiaries with HQ implemented common language policy and subsidiaries without it, would also enhance our understanding on the significance and necessity of subsidiary strategic mission-language choice fit. As our sample subsidiaries have no specific language policy implemented by HQ, difference of HQ' language strategy is not considered in our model. This is a limitation of our study that is based on a homogeneous group of samples, Japanese MNCs, thus our findings need to be applied and interpreted with care in this regard. We suppose that HQ-imposed language policy can be as powerful force to distort language choice at the subsidiary level as country level language capital and historical background. How this force influences foreign subsidiaries'

knowledge sourcing and resultant subsidiary performance need to be explored to further generalize our model.

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TABLE 1

List of 90 Case Subsidiaries by Language choice Types

No.	Year of Visit	Country	Size (No. of employees)	Industry	Entry* Mode (WO/JV)	Target** Market (H/L/G)	Function*** (D/M/S)
JJ (Japanese-Japanese)-type Subsidiaries							
1	2018	China	100	Chemical	WO	H/L	D
2	2018	China	150	Textile	WO	L	D
3	2018	China	500	Automobile	WO	H/L	D
4	2018	China	20	Automobile	WO	H	D
5	2014	China	5,680	Equipment	WO	L/G	M/D
6	2014	China	490	Automobile	WO	H	M/D
7	2013	China	40	Software	WO	L	D
8	2011	China	516	Semiconductor	WO	H	M
9	2011	China	10	Electronics	WO	L	D
10	2011	China	278	Electronics	WO	L	D
11	2010	China	81	Electronics	WO	L	D
12	2010	China	834	Electronics	WO	H/L/G	D
13	2010	China	130	Automobile	WO	H	D
14	2012	Korea	83	Office Machinery	WO	L	D
15	2013	Korea	3,500	Electronics	WO	L	M/D
16	2017	Korea	300	Electronics	WO	H	M
17	2012	Korea	537	Automobile	WO	L	M/D
18	2015	Korea	232	Automobile	WO	G	D
19	2015	Korea	450	Equipment	WO	L	M/D
20	2015	Korea	418	Automobile	WO	L	M/D
21	2012	Korea	16	Chemical	WO	L	D
22	2014	Taiwan	134	Trading	WO	L/H	S
23	2014	Taiwan	497	Automobile	JV	H	M/D
24	2015	Taiwan	280	Equipment	WO	L	M/D
25	2016	Taiwan	3,152	Automobile	JV	G/L	M/D
26	2016	Thailand	5,577	Automobile	JV	G/L	M
27	2015	Vietnam	1,787	Automobile	WO	H	D
EJ (English-Japanese)-type Subsidiaries							
28	2011	China	626	Equipment	WO	L	D
29	2011	China	700	Automobile	JV	L	D
30	2011	China	91	Food	WO	G	D
31	2011	China	300	Electronics	WO	G/L	D
32	2011	China	60	Office Machinery	JV	G/L	D
33	2010	China	200	Automobile	WO	H	D
34	2010	China	121	Chemical	WO	G	D
35	2010	China	70	Electronics	WO	G	D
36	2016	Thailand	2,532	Automobile	WO	H	D
37	2016	Thailand	337	Automobile	WO	H	D
38	2012	Thailand	14,916	Automobile	WO	G	M
39	2019	Thailand	3,000	Electronics	WO	H	M
40	2019	Thailand	426	Automobile	WO	H	D
41	2019	Thailand	364	Automobile	WO	H	D
42	2019	Thailand	100	Automobile	WO	H	M
43	2016	Malaysia	317	Electronics	WO	H	M
44	2016	Malaysia	705	Electronics	WO	G	M/D
45	2015	Malaysia	272	Electronics	WO	H	D
46	2015	Malaysia	2,125	Electronics	WO	G	M
47	2015	Malaysia	44	Electronics	WO	G	M
48	2015	Malaysia	2015	Transportation	JV	L/H	S
49	2015	Malaysia	25	Bicycle Parts	WO	G	M
50	2015	Vietnam	1,972	Office Machinery	WO	G	M

51	2015	Vietnam	5	Equipment	WO	G	S
52	2015	Vietnam	31	Chemical	WO	G	M
53	2015	Vietnam	254	Automobile	JV	L	M
54	2015	Vietnam	915	Healthcare	WO	G	M
55	2017	Laos	400	Electronics	WO	H	M
56	2017	Laos	350	Apparel	WO	H/G	M
57	2017	Laos	190	Electronics	WO	H	M
58	2012	India	450	Electronics	WO	L	M/D
59	2012	India	800	Electronics	WO	L	M/S
60	2012	India	10,000	Automobile	WO	L	M/D/S
61	2011	India	1,925	Automobile	JV	L	M/D/S
62	2011	India	3,954	Automobile	JV	L	M
63	2010	India	800	Electronics	WO	L	S
64	2010	India	168	Electronics	WO	L	M
65	2009	India	525	Electronics	WO	G	M/D/S
66	2009	India	700	Automobile	WO	G	M/D/S
67	2013	India	56	Automobile	WO	G	D
68	2011	India	100	Automobile	WO	G	M
LJ (Local-Japanese)-type Subsidiaries							
69	2014	China	246	Automobile	JV	L	M
70	2014	China	190	Manufacturing	JV	L	M/D
71	2014	China	300	Automobile	JV	H/L	M
72	2014	China	832	Construction Vehicles	JV	L	M/D
73	2013	China	96	Automobile	WO	G	M
74	2012	China	33	Automobile	JV	L	D
75	2012	China	2,032	Apparel	WO	L/G	M
76	2012	China	240	Automobile	WO	L	M/D
77	2012	China	260	Automobile	JV	L	D
78	2012	China	366	Retails	JV	L	S
79	2011	China	730	Electronics	JV	G	M/D
80	2011	China	2,298	Automobile	JV	L	M/D
81	2010	China	739	Elevator	JV	L	M/D
82	2014	Taiwan	936	Office Machinery	JV	L	M/S
83	2014	Taiwan	7,116	Transportation	JV	L	S
84	2014	Taiwan	401	Automobile	JV	H	M
85	2017	Taiwan	743	Automobile	JV	H	M
86	2016	Thailand	1,764	Automobile	WO	H	M/D
87	2016	Thailand	225	Machine Tools	WO	H	M
88	2019	Thailand	637	Automobile	JV	H	M
89	2019	Thailand	5,422	Automobile	JV	L	M
90	2017	Laos	600	Shoes	WO	H	M

* Entry Mode (WO: Wholly Owned, JV: Joint Venture)
**Target Market (H: Home market, L: Local market, G: Global market)
***Function (D: Product Development, M: Manufacturing, S: Sales/Service)

TABLE 2

Strategic Dimensions, Knowledge Source and Language choice

a) JJ-type subsidiaries

Constructs	Second-order themes	Representative data
Strategic Dimensions	Targeting home and local market/customers	"Our major customer is Toyota, and most of our products are equipped in various Toyota's models sold in global and Japan markets." (#23) "Having a product development function on site is essential. Otherwise, we can never get business chances with Chinese OEMs. Our goal is to be a reliable partner of local customers in the new era of automatic-driving." (#4)
	Developing on-site product development capability	"Our mission is to develop products on site, where market and customers exist. We try to figure out what functions and quality local customers demand and what kind of new businesses we can further expand here. Because we have lots of manufacturing facilities in China, it is speedy and convenient to develop new products nearby, linking local customer needs with Japan HQ's core technology." (#1) "We have a clear mission to establish an integrated process of product design, engineering, sourcing, and manufacturing in China. Especially, our major challenge is to build a design-in-market capability." (#12)
Locus of knowledge Source	Japan HQ and customers	"*A sense of belonging* [to the network] is absolutely different between foreign subsidiaries using English and Japanese. At the beginning, we though that 'we are a global unit, thus we need to use English'. It was wrong, we changed it to Japanese soon. We have meetings and e-mails with Japan side almost every day. If we keep using English, we could not get enough support and information from Japan as we could now." (#1) "Our project leaders, who are Chinese, communicate with their counterparts in Japan HQ directly and daily. Japan-specific coordination method, so called 'reading between the lines' is critical especially when transferring technical knowhow." (#12)
	Knowledge transfer motivation of HQ staffs	"A subsidiary using Japanese language has a huge advantage in getting support from Japan. Because staffs in the HQ, the teaching side, have different communicative capability depending on languages. Teaching in a foreign language is extremely difficult because they need to teach not only technical knowledge but also *a way of thinking*. The latter is more important. For example, how to interpret the result of testing and whether to proceed to the next step or not depend on a *mindset*, which is critical in developing products. About the mindset, Japanese staffs in HQ are willing to transfer their knowhow to staffs in foreign subsidiaries only when they can communicate in Japanese." (#1) "I think Japanese is a unique language. If not in Japanese language, HQ staffs would not be motivated to transfer their experience and knowhow, and their intention would not be communicated appropriately. *Subtle nuance* become really critical when sharing knowhow, thus it is only possible in their mother tongue for most of Japanese staffs." (#4)
Language choice	Clear emphasis on Japanese language	"Now, we have rich pool of talents with high Japanese language proficiency. About 60% of our engineers (45 people) have native-level fluency." (#14) "All the eight directors are very fluent in Japanese, as they have experienced inpatriation to Japan for six to seven years.

		Every employee needs to pass JLPT level 3 within one year after employment, and Japanese language fluency is essential to be promoted to a managerial level." (#11)

b) EJ-type subsidiaries

Constructs	Second-order themes	Representative data
Strategic Dimensions	Targeting local and global market/customers	"Our role is to provide engineering services to local customers and global customers manufacturing in China. We supply SPE (semiconductor production equipment) and other various production equipment and provide technical support. In the process, we search for what would be our customers' new needs, to reflect them to our next product designing." (#28) "Our main mission is to modify a product model which is originally developed in Japan to fit various regulations and needs of our global customers." (#35)
Locus of knowledge Source	Various customers and markets	"Languages depend on the products, customers and markets. For example, sensor products have technical base in Japan side, thus the director of a sensor department is a Japanese expatriate, and the department has a strong link with the HQ. However, system products (production equipment) are directed by our Germany unit, because product standards are decided in Europe and the products have lots of global customers. Thus, staffs in the system products department have lots of communication with Europe side, of course in English. Our Chinese staffs have highly fluent in English." (#31) "Business talks are mostly in English. When speaking to Japan side, who can speak Japanese speak in Japanese. However, most of our communication even with the HQ is in English. Because our company has a long history of business with various global customers, English is de facto standard language in our company." (#28)
Language choice	Concurrent use of English and Japanese	"About half of our employees are trilingual. We have 14 directors and two third of them can speak Chinese, English, and Japanese. Thus, they speak in English with global customers and Japanese with HQ staffs." (#28) "Most of our engineers [60 in total] can speak English and one third of them can speak Japanese as well. Some engineers learn Japanese to join projects with Japanese customers." (#32)

c) LJ-type subsidiaries

Constructs	Second-order themes	Representative data
Strategic Dimensions	Targeting local market/customers	"We are a joint venture company that Shanghai Automotive Industry Corporation takes 50% of the equity and we 45%, our Japanese partner 5%. We develop and manufacture automobile lamps. Our customers include various automakers, such as Shanghai GM (32%), Shanghai Volkswagen (21%), Tianjin Toyota (10%), FAW (4%), Dongfeng Nissan (6%), other local makers (10%), and some export. To shorten the supply chain, we try to localize parts and material sourcing." (#80) "Local sales have been increasing sharply. We have expanded our business to various local customers including Chinese local makers and global makers manufacturing in China. In both cases, top management of our customers are mostly Chinese people, thus speaking in their mother tongue makes things smooth." (#70)

Locus of knowledge Source	Local partners and customers	"We've manufactured equipment since 2014. Interestingly, we made a joint venture company with one of local competitors. Because they have a strong sales organization and manufacturing experience, we can make synergy by combining them with our [Japan HQ's] technical knowhow." (#70) "Our company is a joint venture with Shanghai Turbine, and it is a huge help. They [Shanghai Turbine] do all the management in general affairs and human resource, thus our side [Japanese expatriates] can only focus on manufacturing." (#69)
Language choice	Local language and Japanese through interpretation	"We use interpreter whenever talking to Chinese managers. One problem is that due to our language problem, communication with foremen and workers in the plant is lacking." (#69) "The English proficiency of Japanese expatriates and local managers is not reliable. Two poor English speakers communicating in English can make a lot of misunderstandings, which is a disaster. So, we believe interpretation is much better way for communication." (#79)

TABLE 3

Language-related HRM Policies

HRM Policies	**Example Quotations** (No. of subsidiary, language Choice type)
Recruitment /Selection	"We recruit Chinese students who studied in Japanese Universities. Our research tasks require perseverance, because it takes many years' research to gain an output. Thus, we need talents who understand our corporate culture and have affinity with it." (#2, JJ) "We recruit people who have worked in other Japanese companies (e.g. Sony, Omron, Fujitsu, etc.). There are not enough talents with Japanese fluency in China, but anyway we need them especially in management level." (#4, JJ) "When selecting a new employee, Japanese fluency is essential for managerial positions, but not must for technical/engineering positions." (#23, JJ) "We evaluate English or Japanese fluency when selecting new employees. A new employee who only has English fluency learn Japanese afterward, we expect." (#28, EJ)
Training	"Japanese language training is twice a week." (#7, JJ) "Our employees who have high Japanese capability teach other employees three times a week. Of course, we pay extra money for their teaching service." (#8, JJ) "All the new employees need to take Japanese language course for two hours after work, three days a week for three months. We employ a professional Japanese language teacher." (#10, JJ)
Financial incentive	"We pay incentives for employees who passed JLPT (Japanese Language Proficiency Test) N1*and N2." (#2, JJ) "We set some allowances for JLPT certificate holders. Because those who have Japanese fluency absorb knowledge from Japan and grow much faster." (#4, JJ) "We pay incentive 50 RMB for JLPT N4, 100 RMB for N3, 300 RMB for N2 and 400 RMB for N1. If they pass it faster, for example within two years since employed, we pay 500 RMB for N1, it's the maximum incentive. (#8, JJ)
Promotion	"Japanese language capability is essential condition to be promoted to management level." (#8, JJ) "To be a manager, JLPT level N1 is required." (#13, JJ) "Without Japanese language proficiency, they cannot be a manager. 20 of our 66 engineers are JLPT level N1 holder. It's [having a N1 to be a manager] taken for granted here" (#11, JJ)

Inpatriation	"We send about 10 employees to the Japan HQ every year, for about 2 years on average. They learn Japanese language in the process of OJT (on the job training). (#3, JJ) "We employ talents from Beijing Institute of Technology, Tianjin University, and Harbin Institute of Technology, and send them to Japan for three years. They learn not only technical skills but also Japanese language." (#5, JJ) "Inpatriation to Japan is for three years because it takes time to learn optronic technology. We have sent 8 rounds of inpatriates so far, 20 employees at the most, and 3 for the last round. Now, 17 of former inpatriates have JLPT level N1." (#6, JJ) "29 engineers have worked in Japan for more than 3 years, and 13 engineers, 2 to 3 years. They are now all in management level and communicate with staffs in Japan without any problem." (18, JJ) "366 of our employees have experienced inpatriation to Japan for 1 to 3 years, and 250 of them have JLPT N1 to N3." (#19, JJ) "All our local managers are former inpatriates who worked in Japan for 1 to 2 years. The primary purpose it was to learn technical knowledge, but at the same time they pick up the language and build a good network in Japan" (#23, JJ) "If they [local staffs] stay in China forever, they can never learn our way of thinking. I mean, our corporate culture. That's why we send our staffs to Japan for 2 to 3 years." (#25, EJ) "Now, 4 of our local staffs are working in Japan. We believe that only local people can understand the needs of local customers' needs. So, we invest to develop local staffs to be able to connect the technology of HQs and local market needs." (#26, EJ) "Our engineers in thermal product department are sent to Japan for 1 to 2 years. We provide Japanese language training before they go to Japan, because all the communication is in Japanese over there." (#60、EJ) "We send 2 to 4 workers of engineering and manufacturing departments to Japan for 6 months. The purpose is to improve employees' motivation and encourage them to learn Japanese way of thinking. They become able to speak simple Japanese languages when coming back. (#71, LJ) "Normally, about 100 shop floor workers of foreman and leader class have a training for skill up in Fujisawa plant in Japan, for 3 to 6 months. Workers have a short Japanese language training as well, so they remember some simple words when they come back". (#89, LJ)

* JLPT (Japanese Language Proficiency Test) has five levels from N5 to N1, amongst which N1 needs the highest capability to pass.

TABLE 4

Summary of Findings

Language Choice Type	Language Choice				Language Resource Development	
	Strategic Dimensions			Major Knowledge Source	HRM Policy	Characteristics of language resources
	Entry Mode*	Target Market**	Function***			
JJ	**WO (92%)** JV (8%)	H (31.4%) **L (54.2%)** G (14.3%)	**D (65.7%)** M (31.4%) S (2.3%)	・Japan HQ ・Home customers	・Selection ・Training ・Financial incentive ・Promotion ・Long-term Inpatriation	・Strong internal linkage
EJ	**WO (84%)** JV (16%)	H (30%) L (30%) **G (40%)**	D (37.7%) **M (47.1%)** S (15.1%)	・Global customers ・Internal network	・Selection ・Long-term Inpatriation	・High flexibility
LJ	WO (32%) **JV (68%)**	H (29%) **L (58%)** G (13%)	D (30%) **M (60%)** S (10%)	・Local JV partner ・Local customers	・Short-term Inpatriation ・Local managers promoted from interpreters	・High local embeddedness

* Entry Mode (WO: Wholly Owned, JV: Joint Venture)
**Target Market (H: Home market, L: Local market, G: Global market)
***Function (D: Product Development, M: Manufacturing, S: Sales/Service)

FIGURE 1

Strategic Dimensions of Sample Subsidiaries

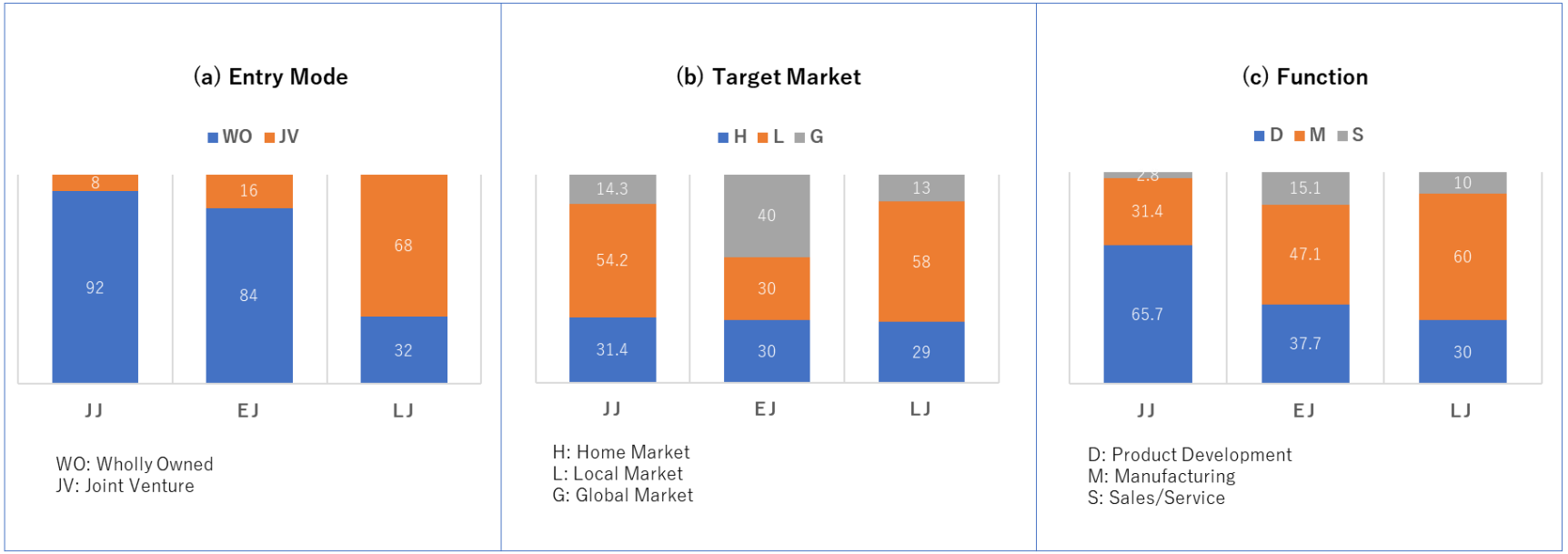


FIGURE 2

Types of Subsidiary Language Choice by Countries

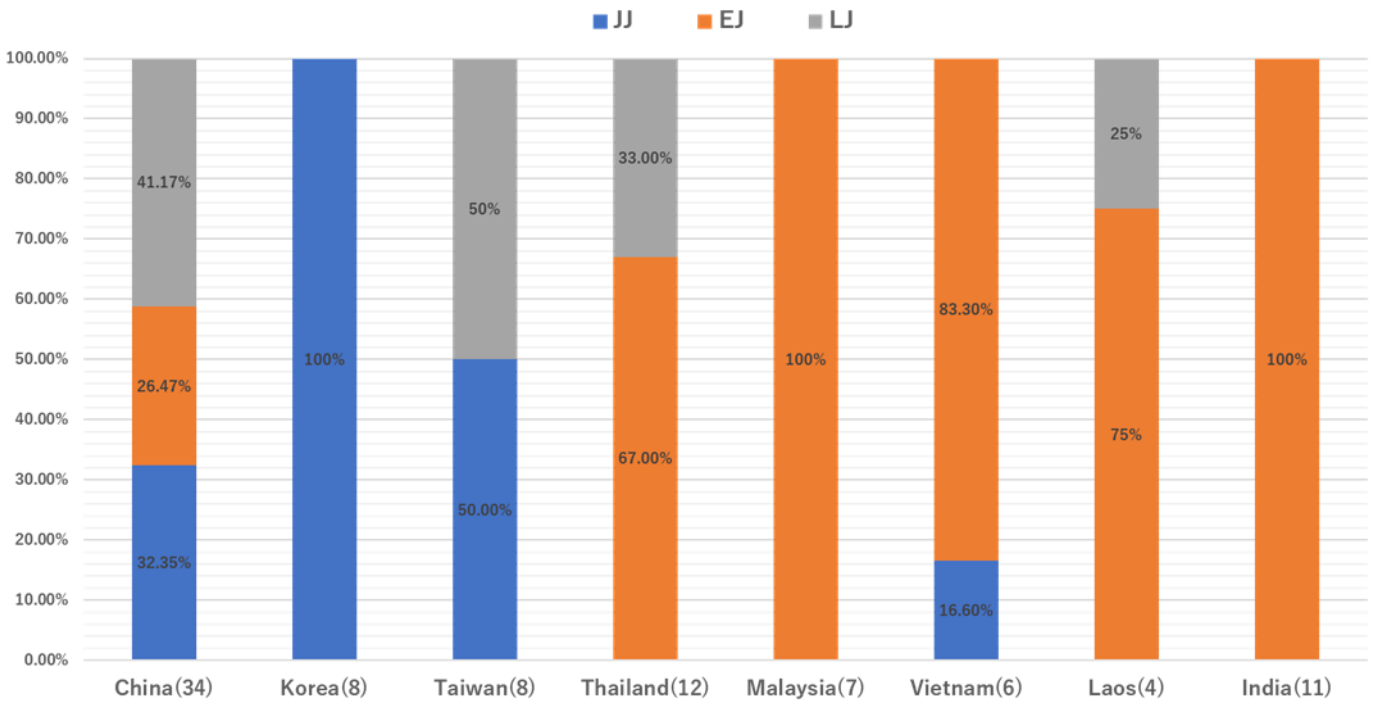
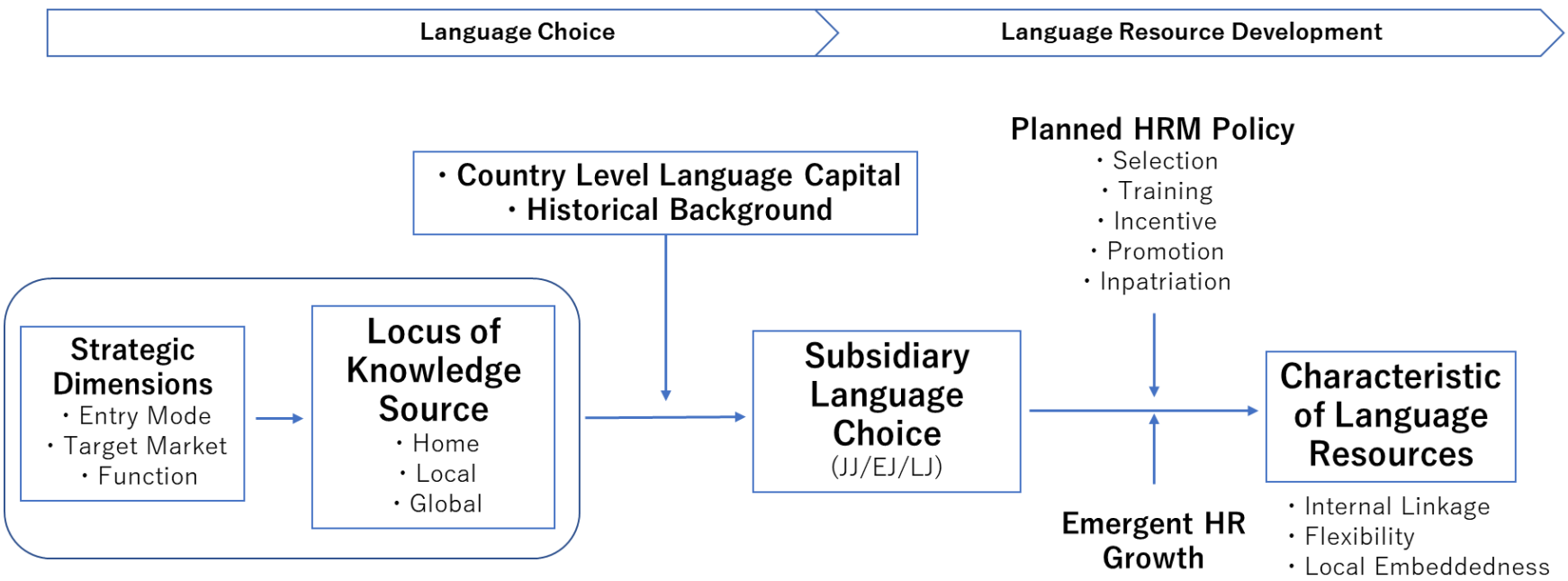


FIGURE 3

Language Choice and Development Process in Foreign Subsidiaries



Finding Creativity in a Genuine Work Environment:
the Mediating Role of Psychological Ownership in Multinational Context

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Finding Creativity in a Genuine Work Environment:

the Mediating Role of Psychological Ownership in Multinational Context

Abstract

The purpose of this study is to extend our understanding of how genuine work environment could improve employee creativity from a social exchange perspective. The research thus to be how authenticity and supervisor feedback environment may lead to creativity through a psychological ownership (PO) mechanism in Chinese and Japanese context. This study proposed four hypotheses. 1. Employees' authenticity will be positively related to their level of PO. 2. A favorable feedback environment is positively related to PO. 3 Employees' PO will be positively related to their level of creativity. 4. Employees' PO mediates the relationship between their perceptions of authenticity; a favorable supervisor feedback environment and creative performance.

This study adopts a quantitative approach to test all above hypotheses. I investigate Chinese (N=213) and Japanese employees (N=190) in IT industry. Results indicated that employees' authenticity and supervisor feedback environment is positively related to creative performance through psychological ownership. This study introduces PO theory into creativity research under social information processing and social interdependent perspective. In addition, results underscore the importance for leaders' efforts of creating favorable contexts for employees to be genuine and seek and give feedbacks in the workplace.

Keywords: Psychological Ownership; Authenticity; Feedback Environment; Creativity

Introduction

Creativity defined as the process, outcomes, and products of attempts to develop and introduce new and improved ways of doing things (Amabile, 1996). The issues of improving creativity continuously draw attention from managers and researchers (Anderson, De Dreu, & Nijstad, 2004; Zhou & Shalley, 2003). Specifically, an emerging vein of research that has focused on understanding antecedents of employee creativity including individual differences and job characteristics (e.g., Raja and Johns, 2010; Farmer et al., 2003; Shalley et al., 2009; Tierney & Farmer, 2004). However, given the interpersonal nature of creativity (e.g., Baer, 2010; Perry-Smith & Shalley, 2003), researchers showed that new ideas are produced when people engage each other in creative process (e.g., Wuchty et. al., 2007), and began studying the influence of aspects of the task, and the social environment, including coworkers, teams, and leaders benefitting employee's creativity. By taking this view, evidence has emerged over the last decade linking contextual factors like feedback interventions (e.g., feedback valence or feedback style) to creativity for its function of motivating employee behavior and contributing to a creative favorable environment. (e.g., Yuan and Zhou., 2008; De Stobbeleir et al.,2011).

The previous studies have made valuable contributions, however, there are still some limitations. First inconsistent results exist on the relationship between feedback and creative performance. For instance, Zhou (1998) suggests individuals receive negative feedback would exhibit lower creative performance but other researchers claim that negative feedback effectively functions on creative performance than positive feedback (Podsakoff and Farh, 1989; Cianci et al., 2010;). Researchers thus suggest that to grasp feedback influences on work outcomes, identifying the multidimensional feedback constructs with broader psychological feedback context matters than single feedback interventions (Levy and Williams, 2004., Dahling et.al., 2017). Therefore, I use the feedback environment, a concept integrates seven dimensions of feedback facets to reflect a balanced feedback environment, as an independent variable to predict creativity (Steelman et al., 2004).

Second, prior research within the creativity and the feedback–creativity domain mostly focused on self-determination theory and intrinsic motivation (Shalley et al., 2004). However, empirical research focused on the mediating role of intrinsic motivation has yielded inconsistent results (Shalley and Perry-Smith, 2001; Shin and Zhou, 2003). Also, concerning motivation mechanism, in the real work environment, pure intrinsically

motivated behaviors are supposed to be limited and rare (Ryan and Deci, 2000).

The present study aims to circumvent these limitations by examining how employees' perceptions of authenticity and their feedback environment may affect their creativity. Besides, building on extended-self and social exchange theory, I also examine one underlying mechanism (i.e. employee psychological ownership) which triggers employee to strongly engage with creative process and exchange information with others. Psychological ownership defined as "a state in which individuals feel as though the target of ownership (or a piece of that target) is theirs (i.e., it is 'MINE')" (Pierce et al., 2003). There are three important routes lead to PO: investing one's self into one's job, exerting control of one's job, and coming to intimately know one's job. This study suggests that when employees receive adequate feedback resources from supervisors, they may get more knowledge and have a sense of control of their jobs, also invest themselves in jobs and organization, which leads to a higher sense of psychological ownership.

Theory and research up to date hold inconsistent opinions on psychological ownership and creativity relationship. Some scholars believe that people with promotive psychological ownership value changes and challenge and see organization improvement as self-fulfilling which leads to creativity (e.g. Avey, et. al., 2009; Pierce, et. al., 2011 and Peng, 2013). Others show that psychological ownership may result in detrimental outcomes like interaction avoidance, self-isolation which decreases knowledge sharing and creativity (e.g. Brown et al., 2005). This research proposes that supervisor feedback environment impacts creative performance through psychological ownership for the following reasons.

Firstly, based on the extended-self theory (Belk, 1988), employees consider work as an extension of themselves at workplace and continuously infuse identities into creative work and further communicate identities with others (Mead, 1934). I hypothesize that employees' authenticity will enhance their psychological ownership and under a favorable feedback environment, employees with promotive psychological ownership will face with various opinions and continuously engage with the process of accommodating feedback by reaffirming with their identities; questioning the current working styles and methods, and further creating new ideas and ways of working. Creativity may thus improve during this dynamic process (Grimes, M. G., 2018).

Secondly, scholars increasingly have recognized that the production of new ideas is boosted when people work together in the creative process (e.g., Wuchty et al., 2007). This study also takes a social exchange

perspective to suggest that employees with promotive psychological ownership may foster creativity in an abundant feedback environment. According to Blau (1964), individuals regulate their interactions with others based on a self-interest analysis of the costs and benefits of such an interaction. People seek to maximize their benefits and minimize their costs when exchanging resources with others (Molm, 2001). The benefits exchanged include both tangible and intangible resources (Eisenberger et al., 2001), in such exchanges, people help others with the general expectation of some future returns, such as gaining desired resources through social reciprocity. In order to maximize the resources gained, individuals may build social relationships with others by sharing their knowledge and information at workplace, positive reciprocity results in improved task performance (Zhang et al., 2014), increased trusting relationships with coworkers and creativity (Černe et al., 2014; Settoon et al., 1996) of the focal person).

I thus suggest that by receiving abundant and reliable feedback, employees with psychological ownership may expect for receiving more gains and resources to maintain and extend ownership. This study thus hypothesizes they may decide to share knowledge and information "they own" with others to exchange more resources. Previous studies have also shown that sharing knowledge and information may lead to change and improvement of creativity (Carmeli et al., 2013). In this way, this research proposes that psychological ownership carries over the effects of supervisor feedback environment on to creativity.

This research makes several contributions to creativity research. First, I identify feedback environment as a multi-dimensional construct to serve as an antecedent of creativity, which response to the call for more research on how integrated feedback interventions efficiently impact creativity (Levy and Williams, 2004., Dahling et al., 2017). Second, I extended the application of psychological ownership by investigating its relationship with creativity, which helps clarify remained inconsistent results. Third, by adopting extended-self and social exchange theory, I indicated a distinctive underlying mechanism of psychological ownership that linking authenticity and feedback environment and creativity which extended creativity research.

Literature Review

Feedback Environment

Steelman et al. (2004) deem that the feedback environment refers to the contextual aspects of day-to-day

supervisor-subordinate and coworker-coworker feedback processes rather than to the formal performance appraisal feedback session. It is composed of seven facets: source credibility, feedback quality, feedback delivery, favorable feedback and unfavorable feedback accurately reflecting performance, source availability, and support for feedback seeking. Source credibility is conceptualized as the feedback source's expertise and trustworthiness. Consistency and usefulness have been demonstrated to be important aspects of feedback quality. A feedback recipient's perceptions of the source's intentions in giving feedback will affect his or her reactions and responses to the feedback. Favorable/unfavorable feedback is conceptualized as the perceived frequency of positive/negative feedback when, from the feedback recipient's view, his or her performance does warrant positive/negative feedback. Supervisor source availability is operationalized as the perceived amount of contact an employee has with his or her supervisor and/or coworkers and the ease with which feedback can be obtained. Feedback-seeking promotion is defined as the extent to which the environment is supportive or unsupportive of feedback-seeking (Rosen et al., 2006). These seven dimensions constitute a highly supportive feedback environment (Whitaker et al., 2007), such support may motivate employees to approach their work more positively, and increase the salience of the information and the importance of the feedback process (Jennifer and Sabine, 2008).

Steelman et al. (2004) further sperate into two key feedback sources, coworkers and supervisors. I used the supervisor feedback environment as the main predictor for its fundamental role in the organization and creative performance which is consistent with previous studies (George and Zhou, 2007; Norris-Watts and Levy, 2004; Anseel and Lievens, 2007).

Psychological Ownership.

Psychological ownership (PO), originally defined as "a state in which individuals feel as though the target of ownership (or a piece of that target) is theirs (i.e., it is 'MINE')" (Pierce et al., 2003). The target of ownership is one that assumes importance for the way people define themselves (Pierce et al., 2001), including tangible and intangible targets such as "the organization," "the job," or a specific aspect of work.

Pierce et al. (2001) have argued that psychological ownership is discriminant from other related constructs in its conceptual core and motivational bases, namely possessiveness. Van Dyne and Pierce (2004) extend this

argument by comparing psychological ownership with other constructs such as commitment and identification. In particular, they emphasize that psychological ownership asks the question, ‘‘How much do I feel this organization is mine?’’ Whereas commitment asks, ‘‘Should I maintain my membership in this organization?’’ identification asks, “Who am I?” Thus, the explicit focus on possessiveness is a primary distinguishing factor in psychological ownership.

Another key distinguishing feature of psychological ownership relative to identification is the experience of control. Identification with an object involves bonding the self to an entity that is bigger than oneself, and thus, feeling comfort in being part of something that is larger than the individual. Namely, individuals attach themselves with something that is beyond their control. In contrast, a sense of ownership describes people make something external to themselves internal or they bring the object within their control range (cf. Belk, 1988; Furby, 1978).

Following their framework, Avey et al. (2009) extended the conceptualization by determining that psychological ownership is best represented as a multi-dimensional construct. Specifically, borrowing from the work of Higgins (1997, 1998) on regulatory focus theory, they suggest that there are two forms of psychological ownership, one of which is promotive and one preventive in nature. Those with a promotion focus collaborate and share because they see such acts as resulting in improvement in the organization and personally fulfilling, while those with a preventive focus are believed, for example, to “carefully monitor and withhold information from others because they seek to avoid change and maintain stability” (Avey et al., 2009, p. 176).

They develop an instrument for promotive psychological ownership measurement with four dimensions, namely, self-efficacy (beliefs); accountability; a sense of place or belongingness; and self-identity. Therefore, promotive psychological ownership is characterized by individuals feeling more efficacious about working with the target, feeling more accountable for what happens concerning the target, experiencing a greater sense of belongingness to the target and feeling a sense of personal identification with the target of ownership (Avey et al., 2009).

However, Pierce et al. (2011) criticize that in terms of the original concept of self-efficacy, they did not refer to beliefs (Bandura, 1997), but the need for personal mastery, and feelings of personal competence (White,1959). Therefore, inconsistencies may exist between promotive psychological ownership with the original idea of

psychological ownership. By integrating both views, this study considered the dimensions of accountability, belongingness, and self-identity constituting promotive psychological ownership.

Feedback environment and Psychological Ownership

According to previous literature, personal differences (e.g. locus of control), job features (e.g. job complexity, job autonomy, and feedback) and contextual factors (e.g. ethical leadership) may serve as antecedents of psychological ownership (McIntyre et al., 2009; Pierce et al., 2009; Avey et al.,2012). However, few studies have focused on how feedback environment may give rise to psychological ownership in various ways. Pierce et al. (2001, 2003) offered three routes or mechanisms through which psychological ownership emerges. First, control of an object may produce feelings of ownership toward the object. Second, feelings of ownership may develop with greater knowledge of and familiarity with an object. Third, individuals may develop feelings of ownership for an object if they create it, especially if the creation involves a significant investment of the self. Follow their framework, this research suggests a feedback environment may predict psychological ownership in the following ways.

Control over work

To gain control over a specific aspect of the environment, an individual needs information to perceive his or her behavior to be related to desired outcomes (Greenberger & Strasser, 1986). As information is one important predictor of personal control in the work context (Skinner, 1996) and feedback information is a valuable type of information (Ashford & Cummings, 1983). Adequate feedback about one's performance and work outcomes are crucial for experiencing control (cf. Greenberger & Strasser, 1986) and for actually making use of one's control possibilities. As this information is necessary to make informed decisions and a favorable feedback environment is likely to provide performance information optimally, personal control over decision making is fostered. Therefore, I assume that a favorable feedback environment leads to a high degree of personal control over job and organization.

Intimate knowing of the job

Feedback has the potential to reduce uncertainty and to provide the feedback recipient with new ideas and insights for tackling problems in different ways (Ashford & Cummings, 1983). A favorable feedback environment as previously characterized provides feedback information that enables employees to learn about others' expectancies and standards concerning their behavior, to gain an adequate picture of their competences and actual performance, to accurately assess their behavior efficiency, and to quickly figure out if changes in their behavior go into the right direction (Peng and Chiu, 2010). In conclusion, a favorable feedback environment may improve employees' knowledge of their job.

Investment of the self into the job

In a favorable feedback environment, besides being provided with sufficient and high-quality information the employee is likely to feel appreciated, carefully treated, and supported by the supervisor. When supervisors provide a highly supportive feedback environment to employees, the latter will be relatively likely to perceive the environment as an expression of supportive organizational values. As a consequence, employees are more likely to accept such values and internalize them (Jung & Avolio, 2000), and experience his/her job as one that is meaningful, and intent to invest themselves into it.

Taken together, a favorable feedback environment through these three routes may lead to psychological ownership, I posit, that:

Hypothesis 1: A favorable feedback environment is positively related to psychological ownership.

Authenticity at work

Research of workplace authenticity has been increasingly studied in management field (Cable et al., 2013). Authenticity describes "the subjective experience of alignment between one's internal experiences and external expressions" (Roberts et al., 2009), especially the ability to behave in accordance with one's true self (Knoll et al., 2015; Metin et al., 2016). This study follows a person-centered approach to see authenticity at work in three central dimensions: self-alienation, authentic living, and accepting external influence (Van den Bosch & Taris, 2014). Self-alienation, refers to the subjective experience of "knowing who one is" at work. Employees who

feel out of touch with their core self at work are characteristic for this dimension. Authentic living, is the degree in which employees' actions at work are congruent with their values, feelings and beliefs. Accepting external influence refers to the extent to which an individual accepts external influence of others and the belief of actually meeting the expectations of others.

Previous research on authenticity has mainly focused on trait conceptualizations of authenticity (e.g., Wood et al., 2008), the work outcomes of authenticity: employee socialization and retention (Cable et al., 2013), employee wellbeing (Ménard et al., 2011). However, except Van den Bosch & Taris (2018), who explored self-determination as a mechanism between authenticity and well-being. Few research showed the underlying mechanism between authenticity and proactive behaviors, and its influences under different cultural contexts.

Authenticity and Psychological Ownership

The origin of Psychological ownership and feelings of possessions, as noted by Litwinski (1942) from a psychological perspective 'to possess means the power of becoming tied to an object.' As such, there is a strong link between possessions and one's 'sense of self" (Belk, 1988; Furby, 1991)

Building on the notion that there is a close connection between what is me and that which is mine. We are what we possess and what we possess is an important part of our sense of self. However, few studies have explored the relationship between them.

Considering the above arguments, this study offers the following assumption:

Hypothesis 2: Employees' authenticity at work will be positively related to their level of psychological ownership.

The Mediating Role of Psychological Ownership

Creativity refers to the process, outcomes, and products of attempts to develop and introduce new and improved ways of doing things (Amabile, 1996). This study adopts the interactionist perspective to understand creativity (Woodman et al., 1993). It stresses that creativity is a complex interaction between the individual and their work situation in organization, which is proved to be the result of a series of antecedent conditions:

cognitive style and ability (e.g., divergent thinking), personality (e.g., self-esteem), relevant knowledge, motivation, social influences (e.g., rewards), and contextual influences (e.g., physical environment).

Prior studies have generally established a positive relationship between psychological ownership and extra-role behaviors such as OCBs (Park et al., 2013). However, scholars maintain inconsistent ideas regarding the relationship between psychological ownership and creativity.

Previous findings have indicated that psychological ownership may foster creativity. For instance, scholars have claimed that people with promotive psychological ownership feelings consider the improvements to the organization as self-fulfilling and consider change and creativity as upholding values of the organization (Avey, et. al., 2009; Peng, 2013). Besides, psychological ownership theory also suggests that people with ownership feelings toward their job are more willing to take risks and make sacrifices (Pierce, et. al., 2011). This line of thinking yields a change in attitude and shapes how the employee responds to the difficulties of the creative process.

Other scholars have argued that psychological ownership may lead to detrimental outcomes, for instance, Brown et al. (2005) claimed that feelings of ownership may result in individuals seeking less interaction with others as they are preoccupied with their targets of ownership and may isolate with others which hinder knowledge sharing and creativity. However, they simply consider this relationship in an extreme individual dominance way but failed to notice how external conditions shape psychological ownership from an interactive perspective.

This study considers authenticity and supervisor feedback environment may serve as potential factors which influences creativity through psychological ownership for the following reasons.

First, based on the extended-self theory (Belk, 1988), psychological ownership reflects a relationship between a person and an object in which the object of ownership is considered as being closely connected to the self; that is, as part of the extended self (e.g., James, 1890). At workplace, employees with a high level of authenticity may lead to strong feelings of psychological ownership. Therefore, they tend to infuse identities into creative work and further communicate identities with others (Mead, 1934), creativity may thus improve during this dynamic process. This study suggests that employees with a high level of psychological ownership will intend to continuously engage with the process of questioning the current working styles and methods, reaffirming

with their identities, and further creating new ideas and ways of working.

Second, a favorable feedback environment is both supportive and incentive (Sparr et, al., 2008), which improves creative performance (Zhou and Shalley, 2008). In a supportive feedback environment, employees can better clarify performance standards according to the requirements of the organization with less uncertainty and ambiguity (Kim et al., 2010). Furthermore, a favorable feedback environment could entitle the employees with the feeling of being appreciated and then cultivate the support of leadership (Sparr et. al., 2008). Scholars claimed that leaders who provide slack resources (Woodman et. al., 1993), including information and expertise, enhance creativity among their employees (Mumford et. al., 2002).

According to Blau (1964), the organization has to provide benefits or resources that are valuable to the employees for initiating the exchange (Molm, 2003; Cole et al., 2002). The benefits exchanged include both impersonal resources such as financial resources and information and socio-emotional resources like approval and respect, which are less tangible (Eisenberger et al., 2001). As stated before, the relationship between supervisors and employees may evolve into one of reciprocity at workplace, (Strom et al., 2014) and positive reciprocity results in improved task performance (Zhang et al., 2014), increased trusting relationships with coworkers and creativity (Černe et al., 2014; Settoon et al., 1996) of the focal person. Although some scholars indicated the dark sides of psychological ownership like interaction avoidance may hinder creativity (Brown et al., 2005). In a highly cooperative and interdependent technical environment of IT industries with creative-oriented feedback interventions, although they might have intentions to keep ownership, few employees are willing to maintain achievement by engaging with purely self-isolation.

I thus suggest that from a social exchange perspective, by receiving abundant and reliable feedback, feedback will be perceived as information to improve one's adaption with the target supervisor rather than as an evaluation. Further, within a supportive supervisor feedback environment, employees are fostered and promoted to approach their work creatively. Employees may feel obliged to repay the organization and expect for receiving more gains and resources as well. Specifically, employees possessing psychological ownership may decide to share knowledge and information ‘‘they own" with others to exchange more resources and seek more feedback from supervisors. Previous studies have also shown that sharing knowledge and information may lead to change and improvement of creativity (Carmeli et al., 2013). In this way, this research proposes that psychological

ownership carries over the effects of supervisor feedback environment on to creativity.

Based on the above arguments, I offer the following assumptions:

Hypothesis 3a: Employees' psychological ownership will be positively related to their level of creative performance.

Hypothesis 3b: Employees' psychological ownership mediates the relationship between their perceptions of a favorable supervisor feedback environment; authenticity and creative performance.

Method

Sample and procedures

This study investigates employees from the Chinese and Japanese IT Industry by professional online survey website. 213 questionnaires from China were completed and returned, yielding a response rate of 68.7%. The mean age of the participants was 30.62 years (SD=5.02), 48.8 percent of respondents are males. Most of them have a bachelor's degree (75%) or above. The average tenure of the respondents is 5.3 years, and most of them are in the position of management (77.9%). All data are based on participants' self-reports. The Japanese data is collecting in process.

Measures

As all measures applied in this study were originally in English, this study follows the translation and back-translation procedures supposed by Brislin (1980). First, questions were translated into Chinese, and then back-translated to English by a group of bilinguals.) Finally, resulting differences were resolved by discussing and referencing previous research. All measures (see appendix 1) use a 5-point Likert-type scale with 1 = "strongly disagree" and 5 = "strongly agree"

Supervisor Feedback Environment

I measured the supervisor feedback environment using Steelman et al.'s (2004) scale. This Likert scale assesses seven facets within feedback environment. Example items are "my supervisor is generally familiar with

my performance on the job." "my supervisor gives me useful feedback about my job performance." Since hypotheses in this study consider FES operating at the construct level, following with previous research (e.g. Sparr et. al., 2008; Peng and Chiu, 2010)., a composite score of the feedback environment rather than a score based on the individual facets was used. The Cronbach's α for the measure of supervisor feedback environment was 0.89. I conduct a second-order factor CFA analysis, the fit indexes for the higher-order model provide an acceptable fit to the data（CFI＝0.94; x^2/df＝253.768/164; RMSEA＝0.051; SRMR=0.058). Therefore, FES is successfully proved to be a valid compositive construct.

Authenticity at work.

Authenticity was measured by Individual Authenticity Measure at Work (IAM Work) (Van den Bosch and Taris, 2014). I consists of three dimensions: self-alienation (e.g., "At work, I feel alienated from myself"), authentic living (e.g. "At work, I am true to myself"), and social influence (e.g., "At work, I usually do what others tell me"). Each dimension was measured with four items. The second-order factor CFA analysis result of PO (CFI＝0.978; x^2/df＝76.2/54 RMSEA＝0.044; SRMR=0.088) shows the validity of considering it as a compositive construct. The Cronbach's α for the measure of Authenticity was 0.86.

Psychological ownership

Psychological ownership was measured with Avey et al.'s (2009) 12-item instrument for promotion-oriented psychological ownership and exclude the dimension of self-efficacy. Example items are:" I would challenge anyone in my organization if I thought something was done wrong," "This place is home for me" and "I feel being a member in this organization helps define who I am. " By integrating the literature review (Pierce et. al., 2011; Avey et. al., 2009), this study considers the dimensions of accountability, belongingness, and self-identity constituting promotive psychological ownership. With the same reason with FES, this study uses a composite score of PO based on prior research (e.g. Avey et. al, 2012). The second-order factor CFA analysis result of PO (CFI＝0.948; x^2/df＝40.412/17; RMSEA＝0.081; SRMR=0.059) also shows the validity of considering it as a compositive construct. The Cronbach's α for the measure of psychological ownership was 0.80.

Creative performance

Consistent with prior studies, creative performance was measured by using 13 items of Creative performance. Employees were asked how often they displayed creative behavior in the workplace in recent 4 weeks on a 5-point scale ranging from never to always. A sample item taken from the scale reads “Seeks out new technologies, processes, techniques and/or product ideas.” The Cronbach’s a for the measure of creative performance was 0.90.

Control variables

Based on previous research (Pierce et. al., 2011), this research set gender, age, education, tenure and position as control variables.

Data Analysis and Results

Preliminary Analyses

Before testing any hypotheses, I calculated scale scores and ran preliminary analyses to assess method bias. To assess common method variance, I conducted Harman's single-factor test in SPSS 24.0. Harman’s test is traditionally used to estimate the amount of variance due to a single common method factor (Podsakoff et al., 2003). To conduct this test, I used exploratory factor analysis (Appendix 2-5) to see how much variance across all items could be attributed to a single factor by using the maximum likelihood method. According to the result (Appendix 2), I delete item 11 of the Feedback Environment Scale, which does not belong to any factor. The results indicated that the method factor accounted for 32.52% (FES); 35.5% (AU) 39.06% (PO) and 45.72% (CP), which was much less than the 50% cutoff that would indicate a serious threat to the study’s internal validity if uncorrected. Table 1 shows the Cronbach alpha values, descriptive statistics, and correlations among the variables in this study. All the variables were inter-correlated with each other. The results provide initial support to the hypotheses (H1; H2; H3a).

Convergent validity

By using AMOS 24.0, I assessed convergent validity using three indicators: (a) factor loadings, (b) average

variance extracted (AVE), and (c) composite reliability (Fornel & Larcker, 1981).

AVE represents the amount of variance that a latent variable can account for among the items that are theoretically related to it. When the AVE of a latent variable is greater than .50, that means that it accounts for a majority of the variance of its items (Hair et al., 2010). Composite reliability (CR) is used to estimate the factor's internal consistency CR is similar to Cronbach's Alpha but it is thought to be an improved internal consistency estimate because it accounts for error variance (Bentler, 2009). CR with values above .70 indicates strong reliability (Hair et al., 2010). The results of Factor loadings; AVE and CR can be seen in Appendix 6. Items 4 of psychological ownership were dropped for its low factor loading, other variables show strong reliability for the measured model (CR＞0.7; AVE＞0.5).

Mediation analysis

In this study, I examined whether the impact of feedback environment on creativity is mediated by psychological ownership. To test the mediation model, I conducted hierarchical regression analysis. Table 2 summarizes the regression results. Models 1–3 tested the associations between creative performance (i.e. dependent variable), feedback environment and Authenticity (i.e. independent variable), psychological ownership (i.e. mediator variable), and control variables. The results show that feedback environment and Authenticity significantly encourage psychological ownership (H1: β=0.39, p< 0.001) and creative performance (H2: β=0.23, p< 0.001), which both supported H1 and H2. Also, H3a was supported (β =0.48, p< 0.001).

Besides, this study satisfied all four of Baron and Kenny's (1986) conditions to run mediation analysis. Namely, a) the independent variables must be significantly associated with the mediator variable, b) the independent variable must be significantly associated with the dependent variable, c) the mediator variable and the dependent variable must be significantly associated, and d) the relation between the independent and the dependent variables should be non-significant or weaker when the mediator variable is entered.

Thereafter, I tested for mediation hypotheses by adopting a bootstrapping approach. I used Hayes's (2013) SPSS PROCESS macro (Model 4) with authenticity and feedback environment served as the predictors, self-rated creativity served as the outcome variable, psychological ownership served as the mediator. 50000 bootstrap samples were used to create a 95% bias-corrected confidence interval (CI) to assess the significance of the indirect effects. The effects are considered statistically significant if the CI does not include zero. Table 3

shows the final results. The indirect effect of psychological ownership between feedback environment on creativity is significant B = 0.19, SE = 0.05, 95% CI [0.011, 0.296]. The indirect effect of psychological ownership between authenticity on creativity is also significant B = 0.11, SE = 0.04, 95% CI [0.031, .0.206], which supported H3b.

Discussion

The purpose of the current study is to extend our understanding of the feedback-creativity relationship from a combination of extended-self and social exchange perspective. Supporting all hypotheses, results from survey studies in Chinese and Japanese IT industries revealed that authenticity and supervisor feedback environment arouses higher levels of employee psychological ownership, which in turn facilitated employee creativity. Below I elaborate the contributions of this study to current literature on theory and practice

Theoretical Contribution

First, I extend previous creativity research by identifying a different mechanism (i.e., psychological ownership) linking supervisor feedback environment and creativity. Specifically, I suggest that the supervisor feedback environment can influence creativity from social exchange and extended-self perspectives which enhances the engagement of creative process and strengthens motivation for sharing information and self-identity with others.

Second, I identify the supervisor feedback environment as an antecedent of employees' psychological ownership, which have been rarely explored. Traditionally, the literature on the feedback-creativity relationship has focused on the effect of specific feedback intervention, such as feedback valence and feedback delivery, on creativity (Zhou, 1998, 2003; Zhou and George, 2001). I applied a more comprehensive conceptualization of feedback concept and instrument to Chinese employees and were able to replicate earlier findings from Steelman et al. (2004).

Third, this study contributes to PO theory by empirically proving that authenticity could serves as an antecedent factor of PO. It unfolds significant yet ignored relationship between what we are and what we own under work contexts, which helps us to understand the unique characteristic of PO.

Finally, this study extends the application of psychological ownership theory. Although researchers claimed

that the creation process is one of the most powerful means of generating psychological ownership (Van Dyne & Pierce, 2004). Many researchers have argued against those strong feelings of psychological ownership are likely to result in the lack of willingness to relinquished/or share those objects for which ownership is felt, thereby, impeding organizational change, the sharing of ideas, cooperation, creativity (Sampson, 1978; Swann, 1984). Due to these inconsistent suggestions, this study empirically examined that employee psychological ownership represents the positive reciprocity and communication entailed in the social exchange and extended-self theory, which may shed some light on the relationship of psychological ownership and creativity research.

Practical Implication

To improve competitiveness in the changing environment, organizations need to inspire employee creativity (Zhou & Shalley, 2003). The results of this study offer concrete implications for how to leverage social exchange relationships to enhance employee creativity through psychological ownership. Organizations should encourage supervisors to give genuine and useful advice to help employees internalize their job and further consider the job as theirs. It may result in a high-quality social exchange relationship within an organization and foster creativity.

Furthermore, to allow a certain degree of authenticity at work will bring employee motivations and responsibilities to internalize work task, value, which may also lead to creativity. Hence, organizations may provide leader feedback training to team supervisors to nurture high-quality social exchange relationships with their subordinates. Moreover, the organization may offer more chances for enhancing employee interactions to facilitate networks of reciprocal social exchanges with supervisors and coworkers.

Limitation and Future Direction

Although findings of this research have made some contribution to answering several recent questions in the feedback-creative performance literature, this study has several limitations.

One limitation is the sample. The small sample size reported here may have affected the current results. However, data were only focused on organizations of IT Industries in China, which may lead to bias results. Future studies should add more samples in cross-industries from other countries, which will make the results more specific and representative since cultural contingencies may influence employees' attitudes and behaviors.

Second, this study relies on cross-sectional and self-report data; therefore, no causal relationships of the

studied variables can be unambiguously established, for the longitudinal research design may have other explanations. Some of the relationships may operate in reverse. Future studies can conduct experimental designs or from time-series designs to collect longitudinal data that clarifies the causal relationships among the studied variables.

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Appendixes

Appendix 1. Measurement Items

Supervisor Feedback Environment

1. My supervisor is generally familiar with my performance on the job.

2. In general, I respect my supervisor’s opinions about my job performance.

3. My supervisor is fair when evaluating my job performance.

4. My supervisor gives me useful feedback about my job performance.

5. The feedback I receive from my supervisor helps me do my job.

6. The performance information I receive from my supervisor is generally not very meaningful. (R)

7. When my supervisor gives me performance feedback, he or she is considerate of my feelings.

8. My supervisor generally provides feedback in a thoughtless manner. (R)

9. My supervisor is tactful when giving me performance feedback.

10. I seldom receive praise from my supervisor.

11. My supervisor generally lets me know when I do a good job at work.

12. I frequently receive positive feedback from my supervisor.

13. On those occasions when my job performance falls below what is expected, my supervisor lets me know.

14. On those occasions when I make a mistake at work, my supervisor tells me.

15. I frequently receive negative feedback from my supervisor.

16. My supervisor is usually available when I want performance information.

17. My supervisor is too busy to give me feedback. (R)

18. The only time I receive performance feedback from my supervisor is during my performance review. (R)

19. My supervisor is often annoyed when I directly ask for performance feedback. (R)

20. I feel comfortable asking my supervisor for feedback about my work performance.

21. My supervisor encourages me to ask for feedback whenever I am uncertain about my job Performance.

Authenticity

1 I am true to myself at work in most situations

2 At work, I always stand by what I believe in.

3 I behave in accordance with my values and beliefs in the workplace.

4 I find it easier to get on with people in the workplace when I'm being myself.

5 At work, I feel alienated

6 I don't feel who I truly am at work.

7 At work, I feel out of touch with the "real me".

8 In my working environment I feel “cut off” from who I really am.

9 At work, I feel the need to do what others expect me to do.

10 I am strongly influenced in the workplace by the opinions of others.

11 Other people influence me greatly at work.

12 At work, I behave in a manner that people expect me to behave.

Psychological ownership

1. I am confident in my ability to contribute to my community’s success.

2. I am confident I can make a positive difference in this community.

3 I am confident in setting high performance goals in my community.

4 I would challenge anyone in my community if I thought something was done wrong.

5 I would not hesitate to tell my community if I saw something that was done wrong.

6 I would challenge the direction of my community to assure it is correct.

7 I feel I belong in this community.

8 This place is home for me.

9 I am totally comfortable being in this community.

10 I feel this organization’s success is my success.

11 I feel being a member in this community helps define who I am.

12 I feel the need to defend my community when it is criticized.

Creative performance

1. Suggests new ways to achieve goals or objectives

2. Comes up with new and practical ideas to improve performance

3. Searches out new technologies, processes, techniques, and/or product ideas

4. Suggests new ways to increase quality

5. Is a good source of creative ideas

6. Is not afraid to take risks

7. Promotes and champions ideas to others

8. Exhibits creativity on the job when given the opportunity to

9. Develops adequate plans and schedules for the implementation of new ideas

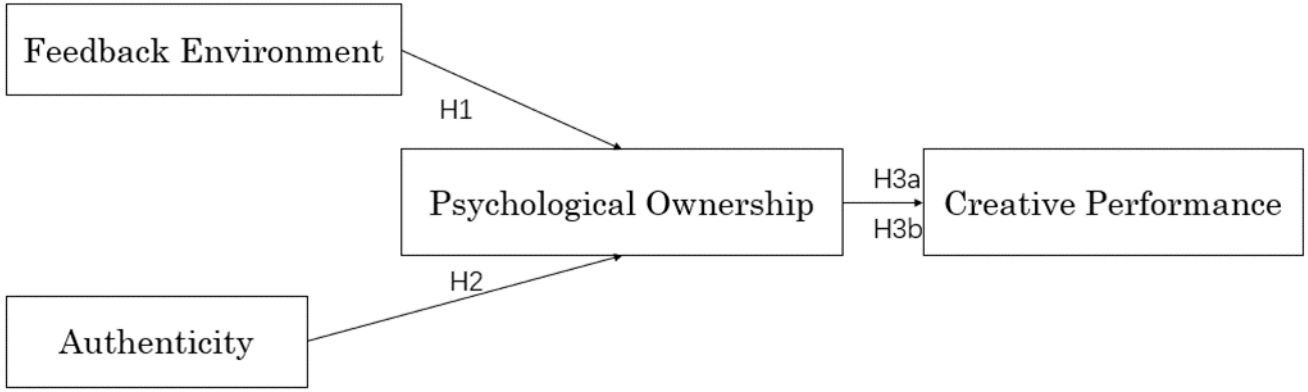
10. Often has new and innovative ideas

11. Comes up with creative solutions to problems

12. Often has a fresh approach to problems

13. Suggests new ways of performing work tasks.

Figure 1. Research Model



Appendix 2. EFA results of FES

Feedback Environment Scale (FES)	Factor						
Measuring Items	1	2	3	4	5	6	Communalities
FES21. My supervisor encourages me to ask for feedback ... about my job Performance.	**0.811**	-0.033	0.054	0.036	-0.016	-0.093	0.577
FES20. I feel comfortable asking my supervisor for feedback about my work performance.	**0.653**	0.144	0.066	0.009	-0.110	-0.068	0.431
FES19. My supervisor is often annoyed when I directly ask for performance feedback.(R)	**0.574**	-0.105	-0.082	0.100	-0.088	0.278	0.468
FES10. I seldom receive praise from my supervisor.	**0.501**	0.030	-0.091	0.002	0.141	0.049	0.376
FES12. I frequently receive positive feedback from my supervisor.	**0.486**	0.078	-0.048	-0.158	0.206	0.160	0.556
FES11. My supervisor generally lets me know when I do a good job at work.	0.270	0.056	0.081	0.041	0.249	0.016	0.329
FES8. My supervisor generally provides feedback in a thoughtless manner. (R)	0.017	**0.821**	-0.009	0.045	-0.133	0.031	0.620
FES7. When my supervisor gives me performance feedback, ...considerate of my feelings.	-0.041	**0.812**	-0.005	-0.079	0.133	-0.038	0.698
FES9. My supervisor is tactful when giving me performance feedback.	0.108	**0.625**	0.031	0.040	-0.032	-0.031	0.445
FES2. In general, I respect my supervisor's opinions about my job performance	-0.061	0.025	**0.889**	0.028	-0.014	0.023	0.779
FES3. My supervisor is fair when evaluating my job performance.	0.015	-0.020	**0.730**	-0.005	-0.069	0.069	0.530
FES1. My supervisor is generally familiar with my performance on the job.	0.056	0.010	**0.617**	-0.029	0.130	-0.018	0.495
FES15. I frequently receive negative feedback from my supervisor.	0.016	0.088	-0.083	**0.730**	-0.024	0.082	0.550
FES13. On those occasions when my job performance falls below what is …, lets me know.	-0.054	-0.110	0.054	**0.694**	0.092	0.050	0.564
FES14. On those occasions when I make a mistake at work, my supervisor tells me.	0.085	0.022	0.033	**0.671**	0.005	-0.177	0.447
FES5. The feedback I receive from my supervisor helps me do my job.	0.129	-0.142	0.038	-0.079	**0.814**	-0.073	0.608
FES4. On those occasions when I make a mistake at work, my supervisor tells me.	-0.182	0.147	-0.062	0.070	**0.734**	0.098	0.598
FES6. The performance information I receive ... is generally not very meaningful. (R)	0.033	-0.017	0.027	0.127	**0.639**	-0.043	0.495
FES17. The only time I receive performance feedback ... my performance review. (R)	0.052	0.008	0.037	0.003	-0.016	**0.780**	0.685
FES18. My supervisor is too busy to give me feedback. (R)	0.022	-0.059	0.028	-0.064	-0.043	**0.671**	0.397
FES16. My supervisor is usually available when I want performance information.	0.010	0.081	0.048	0.019	0.071	**0.581**	0.502
Initial Eigenvalues	6.83	2.12	1.49	1.34	1.06	1.03	
Percentage of Variance Explained	32.52%	10.09%	7.11%	6.36%	5.05%	4.90%	66.03%
Extraction Method: Maximum Likelihood.							

Appendix 2. EFA results of Authenticity

Authenticity (AU)	Factor			
Measuring Items	1	2	3	Communalities
AU7 At work, I feel out of touch with the "real me".	**0.889**	-0.018	-0.049	0.588
AU6 I don't feel who I truly am at work.	**0.838**	-0.016	0.020	0.475
AU8 In my working environment I feel "cut off" from who I really am.	**0.799**	0.028	-0.006	0.429
AU5 At work, I feel alienated	**0.677**	0.013	0.062	0.403
AU10 I am strongly influenced in the workplace by the opinions of others.	-0.022	**0.809**	0.019	0.527
AU11 Other people influence me greatly at work.	0.057	**0.770**	0.001	0.715
AU9 At work, I feel the need to do what others expect me to do.	-0.022	**0.600**	0.022	0.721
AU12 At work, I behave in a manner that people expect me to behave.	-0.007	**0.594**	-0.037	0.650
AU2 At work, I always stand by what I believe in.	0.015	-0.033	**0.692**	0.361
AU3 I behave in accordance with my values and beliefs in the workplace.	-0.058	0.015	**0.687**	0.653
AU4 I find it easier to get on with people in the workplace when I'm being myself.	-0.017	0.033	**0.632**	0.632
AU1 I am true to myself at work in most situations	0.218	-0.017	**0.610**	0.333
Initial Eigenvalues	4.90	1.85	1.11	
Percentage of Variance Explained	40.83%	15.42%	9.25%	65.50%

Extraction Method: Maximum Likelihood.

Appendix 4. EFA results of PO

Psychological Ownership (PO)	Factor			
Measuring Items	1	2	3	Communalities
PO10. I feel this organization's success is my success.	**0.809**	0.038	-0.040	0.667
PO12. I feel the need to defend my community when it is criticized.	**0.707**	-0.074	0.015	0.454
PO11. I feel being a member in this community helps define who I am.	**0.632**	0.006	0.041	0.425
PO9. This place is home for me.	-0.094	**0.743**	-0.020	0.470
PO7. I feel I belong in this community.	0.084	**0.735**	-0.085	0.579
PO8. This place is home for me.	-0.004	**0.693**	0.127	0.558
PO4. I would challenge anyone in my community if I thought something was done wrong.	-0.036	-0.119	**0.858**	0.635
PO5. I would not hesitate to tell my community if I saw something that was done wrong.	0.018	0.077	**0.643**	0.478
PO6. I would not hesitate to tell my community if I saw something that was done wrong.	0.088	0.172	**0.422**	0.330
Initial Eigenvalues	3.52	1.37	1.12	
Percentage of Variance Explained	39.06%	15.21%	12.50%	66.77%

Extraction Method: Maximum Likelihood.

Appendix 5. EFA results of CP

Creative Performance (CP)	Factor	
Measuring Items	1	Communalities
CP6. Is not afraid to take risks	0.754	0.569
CP1. Suggests new ways to achieve goals or objectives	0.752	0.565
CP2. Comes up with new and practical ideas to improve performance	0.745	0.555
CP3. Searches out new technologies, processes, techniques, and/or product ideas	0.729	0.531
CP8. Exhibits creativity on the job when given the opportunity to	0.712	0.507
CP13. Suggests new ways of performing work tasks	0.692	0.478
CP11. Comes up with creative solutions to problems	0.661	0.437
CP9. Develops adequate plans and schedules for the implementation of new ideas	0.640	0.409
CP12. Often has a fresh approach to problems	0.635	0.404
CP4. Suggests new ways to increase quality	0.521	0.271
CP10. Often has new and innovative ideas	0.503	0.253
CP7. Promotes and champions ideas to others	0.493	0.243
CP5. Promotes and champions ideas to others	0.412	0.170
Initial Eigenvalues	5.94	
Percentage of Variance Explained	45.72%	

Extraction Method: Maximum Likelihood.

Appendix 6. Reliability; Convergent and divergent validity of measuring instruments Construct

Construct	Dimensions	Measuring Item	Std. Loading	Key construct validity properties		
				CR	α	AVE
Authenticity	Authentic Living	AU1	0.87	0.82	0.77	0.63
		AU2	0.709			
		AU3	0.66			
		AU4	0.662			
	Self-Alienation	AU5	0.778	0.9	0.88	0.7
		AU6	0.869			
		AU7	0.863			
		AU8	0.836			
	Accepting External Influence	AU9	0.761	0.85	0.79	0.59
		AU10	0.835			
		AU11	0.829			
		AU12	0.636			

Construct	Dimensions	Measuring Item	std. loading	Key construct validity properties		
				CR	α	AVE
Feedback Environemnt	Source Credibility (SC)	FES1	0.861	0.89	0.81	0.72
		FES2	0.885			
		FES3	0.800			
	Feedback Quality (FQ)	FES4	0.823	0.84	0.78	0.63
		FES5	0.779			
		FES6	0.779			
	Feedback Delivery (FD)	FES7	0.812	0.80	0.80	0.58
		FES8	0.781			
		FES9	0.679			
	Unfavorable Feedback (UFF)	FES13	0.861	0.80	0.75	0.57
		FES14	0.680			
		FES15	0.718			
	Feedback Availability (FA)	FES16	0.804	0.81	0.75	0.59
		FES17	0.855			
		FES18	0.624			
	Feedback-seeking Promotion	FES10	0.730	0.85	0.80	0.53
		FES12	0.785			
		FES19	0.688			
		FES20	0.669			
		FES21	0.756			
Psychological Ownership	Accountability	PO1	0.756	0.76	0.70	0.61
		PO2	0.734			
	Belongingnees	PO4	0.714	0.81	0.75	0.58
		PO5	0.660			
		PO6	0.785			
	Self-Identity	PO7	0.819	0.78	0.76	0.54
		PO8	0.659			
		PO9	0.658			
Creative Performance	Creative Performance	CP1	0.874	0.93	0.90	0.58
		CP2	0.817			
		CP3	0.804			
		CP4	0.610			
		CP5	0.496			
		CP6	0.824			
		CP7	0.579			
		CP8	0.790			
		CP9	0.726			
		CP10	0.594			
		CP11	0.746			
		CP12	0.721			
		CP13	0.772			

Table 1. Means, Standard Deviations, Alpha Coefficients and Correlations among variables.

Variables	Mean	SD	α	1	2	3	4	5	6	7	8	9
1. Gender	1.51	0.50		—								
2. Age	30.62	5.02		-0.20**	—							
3. Education	3.04	0.57		-0.19**	0.23**	—						
4. Tenure	5.30	3.43		-0.21**	0.72**	0.17*	—					
5. Position	2.19	0.83		-0.24**	0.52**	0.26**	0.47**	—				
6. Feedback Environment	3.86	0.43	0.89	0.00	0.04	0.15*	0.09	0.23**	—			
7. Authenticity	3.66	0.50	0.86	-0.07	0.11	0.08	0.17*	0.28**	0.36**	—		
8. Psychological Ownership	3.48	0.56	0.80	-0.14*	0.19*	0.09	0.20**	0.31**	0.49**	0.41**	—	
9. Creative Performance	3.85	0.66	0.90	-0.11	0.13	0.12	0.17*	0.31**	0.43**	0.41**	0.63**	—

*p<0.05 (2-tailed) ** p<0.01 (2-tailed)

N=213

Table 2. Mediating Effects of Psychological Ownership between Feedback Environment and Creative Performance

Variables	Psychological Ownership			Creative Performance					
	Model 1			Model 2			Model 3		
	B	SE	t	B	SE	t	B	SE	t
Constant	-0.126	0.545	-0.231	-0.132	0.568	-0.232	-0.071	0.505	-0.140
Gender	-0.194	0.118	-1.646	-0.107	0.123	0.869	-0.013	0.110	-0.122
Age	0.013	0.017	0.751	-0.006	0.018	-0.356	-0.013	0.016	-0.789
Education	-0.091	0.106	-0.862	0.005	0.110	-0.047	0.049	0.098	0.499
Tenure	0.009	0.024	0.366	0.011	0.025	0.456	0.007	0.022	0.323
Position	0.116	0.086	1.356	0.188	0.089	2.107**	0.132	0.080	1.658*
Feedback Environment	0.390	0.062	6.312***	0.303	0.065	4.692***	0.115	0.063	1.829*
Authenticity	0.230	0.062	3.677***	0.249	0.065	3.823***	0.138	0.060	2.315**
Psychological Ownership							0.481	0.065	7.436***
R^2	0.346			0.290			0.442		
Adjusted R^2	0.324			0.266			0.420		
F value	15.522***			11.984***			20.175***		

Gender: Male=1 Female=0 Position: Employee=1 Basic Management=2 Middle Management=3 Top Management=4

Education: High School=1 Vocational College=2 Bachelor Degree=3 Master Degree=4 Doctor Degree=5 * p<0.05 ** p<0.01*** p<0.001

Table 3 . Indirect effect of psychological ownership

	Coeff.	Boot SE	Bootstrap 95%CI	
			LLCI	ULCI
FES→PO→CP	0.19	0.048	0.011	0.296
AU→PO→CP	0.11	0.044	0.031	0.206

Japanese Firms, Evolutionary Growth, Internationalization Patterns, and Global Strategies

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Japanese Firms, Evolutionary Growth, Internationalization Patterns, and Global Strategies

Abstract

This paper compares and contrasts three fast-growing Japanese firms (SoftBank, Uniqlo and Rakuten) regarding their evolutionary growth, internationalization patterns, and global strategies. The paper uses interdisciplinary literature because of diverse investigations, academic value added, and practitioners' contributions. The three firms remain inherently global players and visible entities in their internationalization and growth patterns. Major findings of the paper reveal that by being multinational corporations (MNCs), SoftBank, Uniqlo and Rakuten grew in their peculiar corporate style and outward expansion. The three firms' global strategies remain to be distinctly dissimilar and sought unorthodox approaches. This paper adds a meaningful value to the literature that aims at academic and practitioners alike in Japanese studies, international business (IB), and related disciplines. The work also provides implications and future research directions of this debate. The significance of this paper lies in its timeliness and applications that relate to Japanese business studies, IB, foreign direct investment (FDI), and global strategies. In 2021, SoftBank, Uniqlo and Rakuten continue to seek growth opportunities in global markets because of consumer demand and availability of new markets. The three firms' aggressive internationalization typifies Japanese corporate culture that remains efficient and distinct even when dealing with new technologies and expansion.

Keywords: Evolutionary growth; global strategies; Japanese firms; Rakuten; SoftBank; Uniqlo.

Introduction

The purpose of this paper is to specifically analyze and discuss three well-known Japanese firms (SoftBank, Uniqlo and Rakuten) that made major strides in global business and continue to seek internationalization and expansion in Japan and beyond. The three firms witnessed their humble entrepreneurial beginning and kept on growing to become major global brands. The three firms and their visionary founders (Masayoshi Son/SoftBank, Tadashi Yanai/Uniqlo, and Hiroshi Mikitani/Rakuten) are well-known for their aggressive corporate initiatives that often defy today's corporate Japan and its large MNCs. The three corporate leaders remain to be among the billionaires' list because of their net worth, firm-specific advantages, and diverse operations. The three companies also carry their first-mover advantages, brand identity, and well-managed operations in Japan and global markets (Karmali, 2020). Unlike large Japanese MNCs, SoftBank, Uniqlo and Rakuten grew in their unorthodox fashion where internationalization and global strategies were niche-based, technologically savvy, and above all, embraced new business models which sought new technologies in domestic and global markets.

Japan in the business and social sciences literature has been widely discussed and analyzed by researchers and practitioners because of its marvelous business and economic growth model and corporate developments (see: Abegglen and Stalk, 1988; Alston, 1989; Aoki, 1990; Christopher, 1983; Gibney, 1982; Hagerty, 2020; Morita, 1989; Vogel, 1979; Vogel, 2006). At the same time, U.S.-based Japan analysts and 'revisionists' who often criticized the country and came up with their own version of theories because of academic/political affiliations (see: Calder, 1995; Fallows, 1995; Johnson, 1992; Prestowitz, 1990).

To expand the discussion of SoftBank, Uniqlo and Rakuten and their growth patterns and internationalization, this paper proceeds as follows. Section one provides introduction of the topic and brief discussion. Section two discusses entrepreneurship in Japan. Section three sheds comments on methodology and research criteria. Section four evaluates and explores evolutionary growth and Japanese firms. Section five explores and analyses internationalization patterns and global strategies. Section six looks at some of the global trends and developments that impacted SoftBank, Uniqlo and Rakuten. Section seven includes the paper's implications and future research. The last section closes this paper with concluding comments and related points. Within Japanese business studies, the paper is a timely investigation of an area in IB and remains to be important because of today's fast changing Japan where companies seek new business models, consumer technologies, and internationalization. For a selected few, this is definitely a new era that warrants discussion and debate.

Entrepreneurship in Japan: Past Issues and Emerging Trends

> "*Successful entrepreneurship today must respond to the demands from global market forces*" (Aoyama, 2009, p. 495).

> "*Japan lacks the self-reinforcing mix of young innovators and financiers that has made places like Silicon Valley and Hangzhou in China, hotbeds of growth. But venture capitalists and entrepreneurs say things are improving*" (Dvorak, 2020, p. B9).

The above comments and observations which appeared in *Regional Studies* and *The Wall Street Journal* accurately describe the importance of global entrepreneurship in today's fast changing business world. Japan is equally capitalizing on new ventures because of available funding opportunities and supporting environment. At the same time, Japan often lagged behind in entrepreneurial initiatives because of limited funding and weakened infrastructure and support facilities. For many years, large firms and Japanese MNCs dominated the traditional business

environment because of their established domestic and global operations (see: Baird, 2018; Lynskey, 2004). In Japan, entrepreneurship in its historical context was a "*rare career choice*" because of the importance of MNCs' corporate power and prestige (Ohe, Honjo and Macmillan, 1990, p. 164). Japan often witnessed "*sagging entrepreneurial spirit*" (Fackler, 2013, p. 1) when dealing with corporate identity and financial prowess.

When looking at SoftBank, Uniqlo and Rakuten, we come to know three unique and distinct firms which started from their humble beginning and became large and well-established entities. Tables 1-3 clearly provide information on the three firms' methodical growth and expansion in Japan and global markets. Interestingly, SoftBank, Uniqlo and Rakuten focused on their niche markets and kept on growing because of changing technologies, consumer demand, and available opportunities.

Methodology and Case-Based Research Issues

In the business literature and social sciences, the case-based literature and historical analysis are important because of their theory building approaches, longitudinal research, and corporate applications (see: Argyres et al., 2020; Eisenhardt, 1989; Eisenhardt and Brown, 1999; Eisenhardt and Martin, 2000). There is no shortage of case-based literature because of company-specific relevance, corporate histories, and internationalization. For this case-based research, we specifically followed those studies that discussed longitudinal research, company-specific strategies, operational issues, and MNCs (Danneels, 2010; Hannan, Pólos and Carroll, 2003; Lubinski and Wadhwani, 2020; Siggelkow, 2000, 2007; Weiss, 1987, 1990, 1993). To discover the literature, we specifically selected academic journals, books, corporate surveys, and other secondary data which were available online and in the libraries. As suggested, we selected industry surveys and reputable journals with acceptable impact factor.

In addition, we used publishers' indexes such as John Wiley, Science Direct, Springer, SAGE, Taylor & Francis, Palgrave, Oxford University Press, Kluwer, Routledge, etc. We also used well-known industry periodicals which are available worldwide. These included *Bloomberg Businessweek*, *The Economist*, *Fortune*, *Forbes*, etc. For newspapers that had global reach and credible circulations, we used *Financial Times*, *The Japan Times*, *The Wall Street Journal*, *The New York Times*, *Washington Post*, etc. For Websites, we used Yahoo Finance, BBC, CNBC, etc. The paper reviewed mostly interdisciplinary literature and related studies from the areas of IB and social sciences.

Evolutionary Growth and Japanese Firms

From their beginning, Japanese firms and MNCs have been exceptionally competitive because of product offerings, quality and internationalization. In the seventies and the eighties, the Japanese MNCs performed exceptionally well when seeking growth and new international opportunities (see: Asakawa and Westney, 2013; Goerzen and Makino, 2007; Kanai, 2018; Taylor, Zou and Osland, 2000). Regarding diversification and location strategies in global markets, Japanese MNCs performance and efficiencies are well-known (Geringer et al., 2000). Organizational operations and entry criteria is also commended for smooth operations (Doeringer, Lorenz and Terkla, 2003; Isobe, Makino and Montgomery, 2000). Knowledge acquisition and R&D capabilities are equally important when dealing with Japanese MNCs (Song, Asakawa and Chu, 2011). Above all, Japanese firms tend to use their experience for distinct capabilities when dealing with uncertainty and institutional hurdles (Delios and Henisz, 2000; Henisz and Delios, 2001).

In the 2000s, Japan's corporate environment started to change because of the country's economic hurdles and competition in global markets. During this time, we witnessed the

emergence of new corporate players such as SoftBank, Uniqlo and Rakuten which were more technically savvy, financially stable, and organizationally well-prepared for today's Japanese and global markets. In a short time, the three firms became famous for their well-planned internationalization and expansion. This could be attributed to their first-mover advantage, available technologies, and fast growing markets and consumers.

SoftBank:

Table 1 provides information on SoftBank's evolutionary growth and selected acquisition from 1981. Masayoshi Son is the founder of the company and remains to be a self-made billionaire and can be called a serial entrepreneur with multiple firms, overseas subsidiaries, and businesses. Because of growth potentials in the areas of emerging technologies, SoftBank grew by leaps and bounds in Japan and beyond. SoftBank was particularly a trend-setter in global markets when dealing with new ventures and risky projects. The firms became a household name in mobile technologies, e-commerce, and semiconductor-related acquisitions (*The Economist*, 2021a,b). SoftBank has sought major investments in high-profile technology firms in Japan and beyond.

Insert Table 1 here

The company's investments carry good prospects when dealing with new and emerging technologies. Unlike large MNCs from Japan, SoftBank took unorthodox approaches and dealt with risk and unproven technologies. This could also be attributed to its visionary founder Son.

The Vision Fund ($100 billion) is another example of SoftBank that was started by the company with pomp and circumstance and a major corporate publicity because of its innovative technology platform and long-term vision (Inagaki and Massoudi, 2020). The Fund's aim was to invest in emerging technologies such as artificial intelligence (AI) and related areas. The Fund

will be increasing its investments annually although after the Coronavirus crisis and in the second round, there seems to be a lackluster demand because of limited growth and interest from investors. Also some of the investments in areas such as WeWork (office-space startup) declined significantly because of their questionable business models and limited long-term growth potential (Massoudi and Kruppa, 2021).

Uniqlo:

Table 1 provides information on Uniqlo's growth and selected expansion in the global clothing industry. Tadashi Yanai is the owner of Uniqlo with a massive net worth of $24.9 billion. From its entrepreneurial beginning, Uniqlo has seen multiple developments and Corporate changes. During its evolutionary growth and history, Uniqlo has witnessed many corporate changes and entrepreneurial initiatives. The company was founded by Ogori Shoji in Ube City, Yamaguchi Prefecture in 1949. Uniqlo opened its first Fukuromachi Store in Hiroshima. In 1991, the company changed its name to Fast Retailing Company Limited and listed its shares on the Hiroshima Stock Exchange. In 1997, Fast Retailing shares started to trade on the Tokyo Stock Exchange. In 1999, Fast Retailing listed its shares on the first section of the Tokyo Stock Exchange. In 2000, the company headquarters moved to Tokyo because of new opportunities and the city's central location.

Insert Table 2 here

Uniqlo started online retailing to compete with other competitors. In 2001, Uniqlo sought internationalization and opened its store in London, UK. In 2006, Uniqlo came to New York City and became the company's first global flagship store. In the following years, international retailing operations were started in London, Singapore, France, Malaysia, Russia, Thailand, Taiwan, South Korea, and New York. In 2013, Uniqlo opened additional stores in Indonesia and

Bangladesh. As of 2021, Uniqlo continues to expand in global markets because of its brand recognition and well-managed operations.

Rakuten:

Table 1 provides information on Rakuten's growth and selected businesses from 1997. The founder of Rakuten Hiroshi Mikitani is truly a successful entrepreneurship who started the firm as an Internet shopping mall in 1997. His business background and American degree did help the founder to approach the Internet market with a new business model. In 2020, Mikitani's net worth stood at $6.3 billion because of Rakuten's fast growth and marvelous expansion in global markets. From its humble beginning, the firm grew beyond its mainstream business model to multiple businesses (Keiichi, 2004). Writing in the *Harvard Business Review*, Mikitani (2013, p. 47) commented: "*Rakuten tries to create a personalized, bazaarlike shopping experience*". Rakuten's is a multi-sided online business and marketplace because of its online retail operations and heightened competition. The company aims at "*personalization and customization*" (Hänninen, Mitronen and Kwan, 2019, p. 384).

Insert Table 3 here

Internationalization Patterns and Global Strategies: SoftBank, Uniqlo and Rakuten

Table 4 compares and contrasts SoftBank, Uniqlo and Rakuten regarding their evolutional growth and internationalization strategies. This comparison is based on up-to-date secondary data, industry surveys, company Websites, business models, and anecdotal evidence. The three firms have grown in their own fashion because of distinct industries, businesses and competition. In company-specific core competencies, SoftBank, Uniqlo and Rakuten maintain high ratings because of their first-mover advantage in Japan. In company-specific

skills/knowledge, the three firms definitely maintain their first-mover advantage because of limited competition. The firms spotted timely opportunities in their respective industries and created consumer-centric markets. In company-specific growth opportunities, SoftBank and Rakuten are ahead of Uniqlo because high-tech markets. SoftBank's company-specific corporate culture remains to be conglomerate whereas Uniqlo is more traditional and Rakuten often empowers its staff and employees. The three firms' learning curves in Japan and beyond are high because of corporate experience and established business models. No wonder their business models are stable, flourishing and maintain a good financial strength.

Insert Table 4 here

To raise money in global markets, SoftBank, Uniqlo and Rakuten often deal with private equity firms for growth and expansion. The three firms' founders are well connected with their companies and remain to be active in day-to-day decision making and planning. No wonder the three founders are fully conversant with their firms' operations and growth. SoftBank, Uniqlo and Rakuten have a good access to ICT-related areas because of growth and expansion. SoftBank and Rakuten are somewhat ahead of Uniqlo because of industry-specific needs. SoftBank's core competencies are in mobile technologies whereas Rakuten is heavily involved in Internet retailing. Uniqlo runs retailing stores but getting involved with e-commerce as well.

In mobile technologies, SoftBank is definitely a winner followed by Rakuten. Uniqlo's involvement in this sector is limited. In today's fast emerging fintech businesses, SoftBank and Rakuten are familiar with these segments whereas Uniqlo remains to be a dormant player. In technology-related funds and venture capital areas, SoftBank is clearly the winner since it started the Vision Fund. Rakuten is limited in venture funds but may catch up in future. In technology-related convergence, SoftBank and Uniqlo are improving but Uniqlo is ahead because of its

consumer-centric issues. SoftBank and Rakuten are first-movers when dealing with big data and artificial intelligence technologies. This could be attributed to their involvement with mobile technologies and Internet commerce. In broadband connectivity, SoftBank is clearly the leader in its markets because of its early start and familiarity with technologies.

Regarding using knowledge from subsidiaries, SoftBank maintains a good network because of its experience curve. Rakuten may take time to capitalize in this area. Uniqlo is good when dealing with its multinational markets and retailing. The three firms are also good at transferring knowledge to their subsdiaries and businesses beyond Japan. This testifies that SoftBank, Uniqlo and Rakuten run well-organized businesses in global markets. In FDI, SoftBank is exceptionally ahead of Uniqlo and Rakuten because of seeking large-scale acquisitions and buying technology firms. Rakuten is accumulating experience because of technology-related acquisitions and growth. Uniqlo mostly seeks organic growth beyond Japan. The three firms are good at seeking expansion beyond Japan and will remain to be active players in global markets.

SoftBank, Uniqlo and Rakuten are expanding beyond their traditional core businesses because of growth and expansion opportunities. Although SoftBank and Rakuten have unloaded some of their international assets and businesses, the two firms remain to be focused on internationalization and expansion. Both firms have capitalized on subscriber-related growth in the Internet sector beyond Japan. SoftBank, Uniqlo and Rakuten are more interested in growth and expansion based on equity mode and taking ownership stake in fast emerging technology firms (see Tables 1-3). SoftBank and Rakuten are found to be more risk-prone and adventuresome in global markets. Uniqlo remains to a conservative retailer and often seeks organic growth. No wonder, SoftBank and Rakuten's operational models are growth-oriented yet

cautious in selected markets. SoftBank's large investment in WeWork reflects its risk-prone strategies.

In alliances and partnerships, SoftBank and Rakuten are active players in global markets and remain to leadership in their respective segments. Strategic acquisitions are always sought by SoftBank and Rakuten. Uniqlo remains to be an inactive player in acquisitions. Same is the case with joint ventures and consortia building where the three firms are not active because of their industry structures and businesses. Mergers are somewhat avoided because of long-term commitment and complex contracts. The three firms also took timely opportunities because of the changing Japanese markets and global environment in the eighties and the nineties. The nineties period brought windfall to many Japanese MNCs and other business because of the strengthening of the Yen, cheaper credit, and global orientation. The Japanese auto industry clearly testifies this trend and made the country to accumulate massive trade surplus.

Selected Events, Global Trends and Corporate Developments

Figure 1 provides selected details of global events, trends, and related corporate developments that impacted SoftBank, Uniqlo and Rakuten from 1980 to 2021. We divide Figure 1 into four distinct periods (1980-2021). There is a lot to be gained from the last 40 years where we witnessed a multitude of high-profile global events and strategic changes that took place in Japan and world markets. Like other Japanese MNCs, these developments also impacted SoftBank, Uniqlo and Rakuten. In the eighties, Japan was economically a sound nation and the second largest economy that almost surpassed the U.S. economy in its GDP. Of course things did not go well because of structural problems and domestic issues (see: Burkett and Hart-Landsberg, 2003; Yoshino and Taghizadeh-Hesary, 2015). The Japanese corporation (*Kaisha*) was a well-known business entity making its visibility in the Western circles. Japan's economic successes

were innumerable and Tokyo became a major financial center. Of course the real estate bubble and Japan's over-reliance on industrial policies created problems.

Insert Figure 1 here

In the nineties, we witnessed the end of Cold War and more market economies opened up for growth and expansion. Of course the nineties also witnessed the emergence of U.S.-Japan trade war that overshadowed Japan's trade surplus. Of course Japanese MNCs became among the top firms in the *Fortune Global 500* list. In the 2000s, the Silicon Valley became a major force in IT and related areas. The Internet was a big development and that provided major opportunities to companies such as SoftBank and others. At the same time, Japan started to witness competitors from emerging markets and the BRIC. From 2010 and 2000, the world witness the emergence of mass scale mobile technologies followed by the introduction of i-Phones. Companies like SoftBank took advantage and made major changes in their strategies. At the same time and like previous decades, Japan encountered its aging demographics. Growth opportunities in the Internet commerce brought major opportunities to SoftBank, Uniqlo and Rakuten. Overall, the above changes and developments that started in the 1980s did bring fortune to companies such as SoftBank, Uniqlo and Rakuten. These development and global events helped firms in Japan to create new business models, developed technologies, and expanded their R&D. The end result was that the three firms and many others were able to internationalize their operations and formulate strategies that sought niche-based strategies and expansion.

Lessons Learned, Implications and Future Research

The Softbank-Uniqlo-Rakuten case is an interesting exercise in the areas of corporate growth and internationalization because of the three firms unique industries, markets and expansion strategies. We can learn and benchmark SoftBank, Uniqlo and Rakuten because of

their well-calculated initiatives and internationalization. The last 30 years clearly provide good lessons in internationalization and global strategies when dealing with the three Japanese firms. To discuss further, we now provide the following implications and future research:

(1). Because of limited market and growth opportunities in the eighties and nineties, SoftBank made a good start by being the first mover to get into mobile technologies. The company's global acquisitions clearly provide its risk-prone behavior and venturesome activities. Of course it was Son who was the person behind the SoftBank's global ventures and his familiarity with the U.S. market.

(2). Uniqlo as a traditional clothing retailer was more cautious when dealing with internationalization and formulating global strategies. The company often pursued organic growth because of its industry structure and product lines. Of course Uniqlo did benchmark the U.S.-based GAP when formulating its private label strategy. The company continues to expand on this model since it has help Uniqlo to create niche markets in the global fast fashion and clothing industry.

(3). By being a late comer, Rakuten was equally enthusiastic when dealing with internet commerce. The company was the first mover in Japan when it created online marketplace. Rakuten's Internet-based strategy was well formulated because of changing technologies and consumer demand in the nineties. Like SoftBank's Son, the company founder Mikitani was also familiar with the U.S. market because of his education and banking experience. No wonder Rakuten runs over 70 businesses and deals with millions of consumer worldwide. This also support the notion of its internationalization and global orientation.

(4). When looking at SoftBank, Uniqlo and Rakuten, we come to know three distinct firms which are truly global regarding their orientation and growth patterns. These business have carved a

unique niche when formulating global strategies beyond Japan. Their humble beginning truly reflects today's entrepreneurial Japan where thousands of entrepreneurs deal with new ventures by exploring new opportunities. Japan is no longer a nation of large MNCs that explored global markets in their traditional ways.

(5). Regarding introducing and using new technologies and growth models, SoftBank, Uniqlo and Rakuten and their founders clearly differentiate themselves from other Japanese firms because of their well-planned businesses and adventuresomeness. The three firms are clearly first-movers in their respective industries because of timely acquisitions and buying. Of course, SoftBank and Rakuten did encounter problems in their growth patterns and global strategies because of miscalculations and weak synergies. In 2021, the three firms truly represent today's fast changing Japan where taking risk and exploring new markets is the norm by entrepreneurs. Son, Mikitani and Yanai have proved that there are opportunities available beyond Japan if explored and utilized properly.

(6). Regarding future research, this paper provides a road map for future research which should be explored by other researchers. We need more longitudinal studies that explore and investigate firms' internationalization strategies and growth patterns. Since SoftBank, Uniqlo and Rakuten operate in global markets, it will be interesting to study and explore their subsidiaries and businesses that fallow local or international operational methods. It will also be prudent to compare and contrast the three firms in their fast changing mobile technologies and Internet retailing. Rakuten and Uniqlo's model of customer-centric strategies can uncover their successes and failure in global markets regarding empowering employees.

Concluding Comments

The purpose of this paper was to compare and contrast three unique and fast-growing Japanese firms (SoftBank, Uniqlo and Rakuten) when dealing with their evolutionary growth, internationalization patterns, and global strategies. The paper used interdisciplinary literature because of diverse studies and academic investigations. As of 2021, the three firms remain to be truly global players in their internationalization and growth patterns. Our major findings of the paper uncover SoftBank, Uniqlo and Rakuten which grew in their peculiar corporate style beyond Japan. This paper added a meaningful discussion that aimed at academic and practitioners alike when understanding in Japanese firms. The paper clearly added value to the literature of IB and related disciplines. Unlike today's large Japanese MNCs, the three companies discussed in the paper mostly sought internationalization and crafted global strategies in an unorthodox way and were successful when targeting global markets and selling their products and services overseas.

The paper also provided implications and future research directions of this debate. We believe that the paper's contribution lies in its timeliness and applications that relate to Japanese business studies, IB, FDI, and global strategies. In 2021, SoftBank, Uniqlo and Rakuten are major business entities that continue to seek growth in global markets. The three firms are clearly creating new markets as well as following consumer demand by providing new technologies and niche segments. In the last 30 years, the three firms' aggressive internationalization testifies today's Japan and its fast emerging entrepreneurial culture that in some areas belies traditional and large MNCs. We finish this timely work with *The Economist's* (2020, p. 60) insightful and thought-provoking comments about SoftBank's Son and Rakuten's Hiroshi:

> "*Mr. Son may have broken the mould for investing in snazzy startups in a way that put him on the cover of global magazines (including this one). Although he has a strong claim to be one of Japan's great entrepreneurs he has never pioneered a new technology. Mr Mikitani*

> *has hnever achieved such global stature. He is arguably more famous outside Japan for making English the lingua francs in his company than for Rakuten itself. Yet if his 5G dreams come true, Mr. Mikitani will have helped engineer a solution not only to a global technological problem but a pressing geopolitical one, too*".

About Uniqlo's Yanai, Okumura and Okutsu (2020, p. 1) accurately observed in in *Financial Times*:

> "*The man who clothes Asia: Uniqlo chief Tadashi Yanai.----Ranked as Japan's richest man by Forbes, My Yanai could probably afford more expensive clothes than those he is weraing. But he has made his fortune as an evangelist for casual wear. Today it is almost impossible to find anyone in his native country who has never shopped in Uniqlo*".

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Table 1. Evolutionary growth, selected acquisitions and major investments by SoftBank (1981-2021)

Evolutionary Growth and Major Acquisitions:

Founder and CEO: Masayoshi Son. Revenues: $59.06 billion
Major businesses: Multinational technology, energy, and financial companies; runs Vision Fund

- SoftBank Corp. was founded in September 1981 by Masayoshi Son. The company was a distribution of software products.
- 1982: SoftBank launches a magazine Oh! PC, Oh! MZ (software/computer magazine)
- 1994: Establishment of SoftBank Holdings, Inc. in the U.S.
- 1994: Raises 20 billion yen in over the counter market
- 1995: Acquires Ziff Davis Publishing Company, publisher of PCWeek
- 1996: Major stake on COMDEX, largest computer trade show in Las Vegas
- 1996: Established Yahoo Japan Corp.
- 1998: Listed shares on first section of Tokyo Stock Exchange
- 1998: Acquires Fortress Investment (U.S.)
- 2000: Invests in Alibaba Corp. of China
- 2001: Launches Yahoo! BB Japan Service
- 2004: Acquires Japan Telecom Co., Limited
- 2004: Introduces SoftBank's new identity, corporate symbol and
- 2005: Acquires shares of Fukuoka Daiei Hawks Corp. (professional baseball team)
- 2006: Acquires Vodafone K.K., a telecom firm in Japan
- 2008: SoftBank introduces iPhone 3G in Japan
- 2010: SoftBank Corp. celebrates in 30th year in business
- 2011: Established SB Energy Corp. to promote renewable energy technologies
- 2013: Acquires 100% of Sprint Nextel Corp in the U.S. (third largesse telecom operator)
- 2014: Acquires Brightstar Corp.
- 2014: SoftBank Mobile Corp. and ALDEBARAN Robotics introduces a humanoid robot
- 2014: Alibaba Groups lists shares on the NYSE (U.S.)
- 2015: SoftBank Corp. changes its name to SoftBank Group
- 2016: SoftBank Group purchases UK-based Arm Holdings, a maker of semiconductors
- 2017: SoftBank Vision Fund is established; aiming at technology acquisitions
- 2017: Agrees to acquire Boston Dynamics (robotics technologies)
- 2017: Acquires U.S.-based Fortress Investment Group
- 2019: Announces SoftBank's 'Vision Fund 2'
- 2020: Invests in Oyo Group (Indian budget hotel chain)
- 2021: Major investments in companies such as WeWork (U.S.), Didi Chixing (China), PT Tokopedia (Indonesia), Coupang Corp. (South Korea), DoorDash (U.S.), KE Holdings (China), ByteDance (China), Auto1 (Germany), Policybazaar (India), Ola (India), Uber (U.S.), Klook (Hong Kong), and others.

Table 1. Continued

Source: *Financial Times* (various issues); SoftBank (2021); The Wall Street Journal Wikipedia (2021)

Table 2. Evolutionary growth, selected acquisitions and major investments of Uniqlo (1949-2021)

Evolutionary Growth and Major Acquisitions:

Current Chairman and President: Tadashi Yanai (founder of Fast Retailing). Revenues: $17.2 billion
Major business: Clothing stores (Japan and global markets)

- 1949: A Yamaguchi-based firm "Men's Shop OS" was founded in Ube, Yamaguchi.
- 1984: Opens a casual wear clothing store in Fukuro-machi, Naka-ku, Hiroshima, under the name 'Unique Clothing Warehouse'.
- 1988: Name changed to 'Uniqlo'.
- 1991: Company changes its name to Fast Retailing.
- 1994: Over 100 stores operating in Japan.
- 1997: Pursues an approach of a private label brand firms by following the strategies of American retailer GAP.
- Uniqlo opens a store in Tokyo.
- 2005: Uniqlo opens its first store in Menlo Park Mall, New Jersey; plans on opening stores in major cities of the U.S.
- 2011: Uniqlo starts selling its products in South Korea.
- 2012.
- 2013: Open first Uniqlo store in Dhaka, Bangladesh.
- 2014: The company open its first store outside of Paris in Strasbourg, France.
- 2014: Uniqlo arrives in Melbourne, Australia and opens its first Australian store.
- 2016: Uniqlo targets Spain and opens a store in Barcelona.
- 2019: The company opens a store in India.
- 2019: Uniqlo operates 19 retail stores in Britain.
- 2020: Uniqlo operates 2,249 stores in major markets of the world and remains to a global brand.
- 2021: Uniqlo operates 48 stores in the U.S. and remains to be a visible brand.
- 2021: Tadashi Yanai (Chairman and President of Fast Retailing) is the richest person in Japan with a net worth of $45.2 billion. Uniqlo continues to pursue its private label strategy and opens stores and operates worldwide. Uniqlo operates as a major visible brand.

Source: Uniqlo (2021); Wikipedia (2021).

Table 3. Evolutionary growth, selected acquisitions and major investments of Rakuten (1997-2021)

Evolutionary Growth and Major Acquisitions:

Founder and CEO: Hiroshi Mikitani. Revenues: $11.62 billion
Major business: Electronic commerce and online retailing; financial services; online banking; fintech (Japan and global markets)

- 1997: Rakuten was founded by Horoshi Mikitani as MDM, Inc.
- 1997: The company's online shopping marketplace Rakuten Shopping Mall ('Rakuten Ichiba') was introduced in May 1997. The company had six employees and started with 13 merchants.
- 1999: The name was changed to Rakuten
- 2000: Rakuten listed its shares on the JASDAQ market in April.
- 2000: The company maintained 2,300 stores and 95 million page views per month; becomes the most popular sites in Japan.
- 2004: Rakuten expanded its financial services businesses and acquired consumer finance firm Aozora Card Co.
- 2005: Rakuten invested in Tokyo Broadcasting System (15% stake).
- 2005: Rakuten started to seek internationalization and expanded beyond Japan through strategic acquisitions and joint ventures.
- 2011: Rakuten acquired Kobo Inc., a Canadian e-book firm and invested in Pinterest.
- 2010: The company acquired PriceMinister, a French online retailer for €200 million.
- 2012: Rakuten bought Aquafadas, a French electronic publishing firm.
- Rakuten expanded in its online retail operations in Austria, Canada, Spain, Taiwan and Thailand. The company was dealing with online travel markets in France, China, Hong Kong, Korea, Taiwan, etc.
- 2015: Rakuten acquired a football team Vissel Kobe, a major J-League in Japan.
- 2016: Rakuten signed a partnership with the La Liga and FC Barcelona, both football teams.
- 2016: The company introduced Rakuten Pay, an app-based smartphone payment system.
- 2017: Rakuten invested in Careem, a Dubai-based taxi service/ride-hailing firm.
- 2018: In e-books retailing, Rakuten made a partnership with Walmart.
- 2018: Rakuten acquired Asahi Fire and Marine from Nomura and paid $457 million.
- 2020: Rakuten shut down Buy.com, an online marketplace in the U.S.
- 2020: Rakuten successfully introduced 5G network services in selected parts of Japan.
- The company closed its online marketplace operations in Germany.
- 2020: Rakuten joined a private equity firm KKR to buy 85% of Seiyu, a Japanese retailer which was offloaded by Walmart in Japan.
- 2021: Rakuten continues to expand globally by investing in firms.

Source: Rakuten (2021); Wikipedia (2021).

Figure 1. Selected events, global trends and corporate developments impacting SoftBank, Uniqlo and Rakuten (1980-2021)

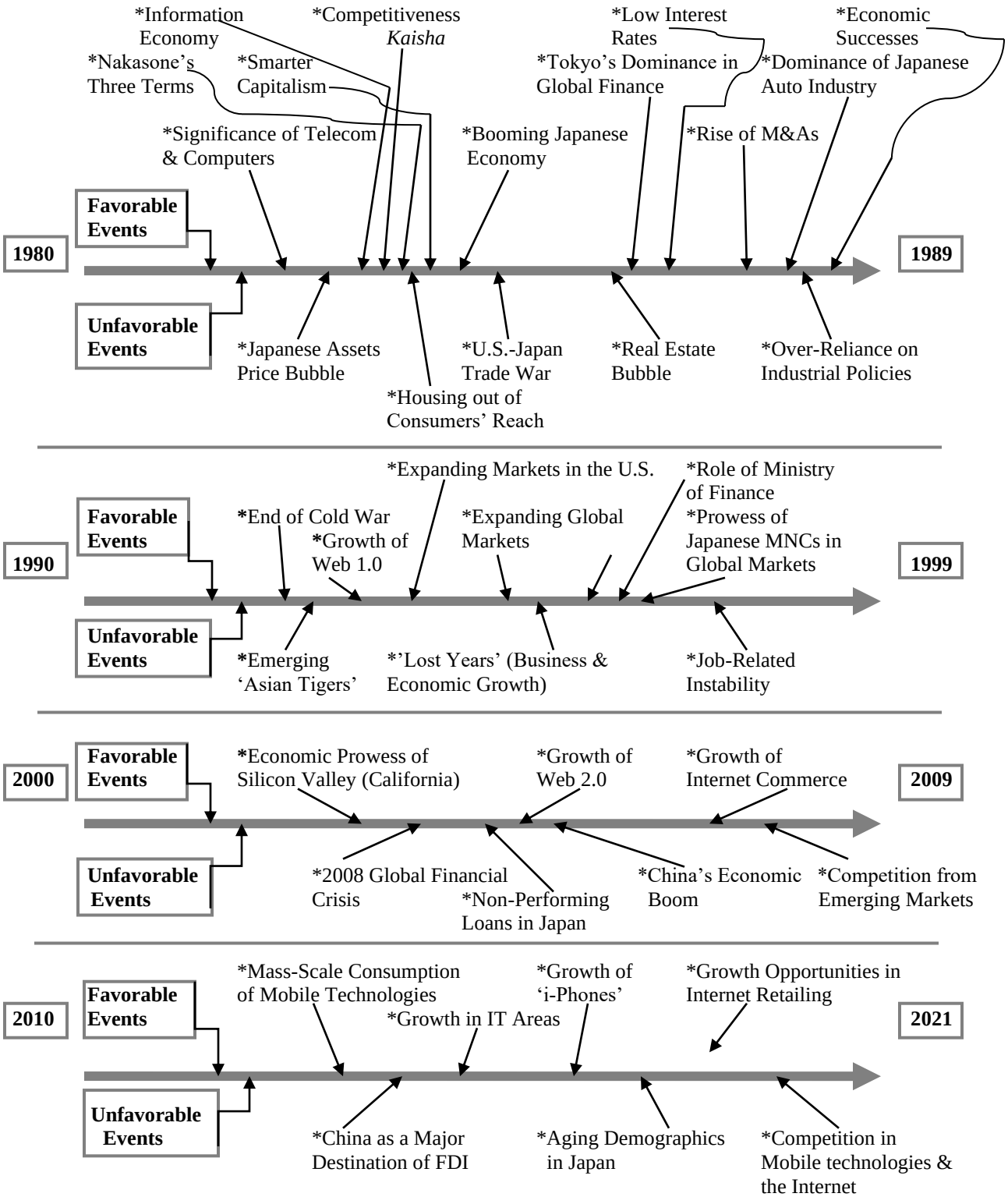

Figure 1. Continued

Source: *The Economist* (various issues); *Financial Times* (various issues); *Fortune* (various issues); *The Japan Times* (various issues)*; The New York Times* (various issues); *The Wall Street Journal* (various Issues).

Table 4. Comparison of SoftBank, Uniqlo and Rakuten: Evolutionary growth, core competencies, and internationalization (2021)*

	SoftBank	Uniqlo	Rakuten
Company-specific core competencies	High	High	High
Company-specific skills/knowledge	Early-mover	Early-mover	Early-mover
Company-specific growth opportunities	High	Medium	High
Company-specific corporate culture	Conglomerate	Traditional	Empowering staff
Learning curve in Japan and beyond	Very High	High	High
Stability of the business model	Stable but Changing	Stable	Stable
Current financial strength	Good	Good	Good
Dealing with global private equity firms	Good	Improving	Improving
Involvement of company founder in the company	High	High	High
Regional/regulatory knowledge of markets	Good	Good	Good
Access to ICT-related infrastructure**	Good	Good	Improving
Access to ICD-related developments**	Good	Good	Good
Growth opportunities in Internet retailing	Limited	Good	Good
Growth opportunities in Mobile technologies	Good	Limited	Medium
Growth opportunities in fintech and finance	Good	None	Good
Growth in technology-related fund	Good	NA	Limited
Growth in venture capital areas	Good	NA	Limited
Issues of technology-related convergence:	Improving	Good	Improving
Use of big data and artificial intelligence	Good	Some	Good
Use of network/mobile technologies	High	Good	Improving
Growth of broadband connectivity	Good	Improving	Improving
Using knowledge from subsidiaries	High	Medium	Improving
Transferring knowledge beyond Japan	Good	Good	Good
History of investment/FDI strategy	Good	Good	Medium
Corporate expansion beyond home market	Very Good	Stable	Good
Expansion beyond the core business	Good	Moderate	Good
Subscriber-related growth in the Internet areas	Good	Low	Good
Subscriber-related growth beyond Japan	Good	Limited	Good
Internationalization process/mode of entry issue	Equity mode	Equity mode	Equity mode
Issues of risk taking	Risk-prone investing	Conservative	Cautious
Operational model	growth-oriented	Traditional	Cautious
Growth and expansion strategies:			
Alliances/partnerships	Very High	Some	High
Greenfield	Limited	High	Medium
Acquisitions	High	Limited	High
Joint ventures	Some	Low	Low
Consortia	Limited	NA	Limited
Mergers	Some	NA	Some

Source: Company Websites; *The Economist (*various issues); *Financial Times* (various issues); *The Japan Times* (various issues); *The New York Times* (various issues); *The Wall Street Journal* (various issues);
Notes: *****Comparison is based on secondary data, industry surveys, company Websites, corporate growth, business models, and anecdotal evidence.

Looking at Japanese cultural exports from a business perspective

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Looking at Japanese cultural exports from a business perspective

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Abstract

Japanese cultural exports have been on the rise in the last two decades, however they have not been adequately studied by management and business scholars. This paper examines extant literature on Japanese cultural exports and develops some overall observations and themes from it. Next, the paper integrates observations from the literature with several themes from international business. It concludes with ideas for future research.

Looking at Japanese cultural exports from a business perspective

INTRODUCTION

Researchers of Japanese business are keenly aware of how Japanese business has affected the business practices in other countries. In particular, operations practices such as kaizen, JIT, Kanban, etc., have been adopted by manufacturing and service operators in many other countries, often with some renaming, such as "lean" and tweaking to fit with a non-Japanese environment (e.g., Womack, Jones & Roos, 1990). However, in the period since the 1990s, Japan also became a major cultural exporter (McGray, 2002). Japanese cultural exports range from cuisine, to forms of entertainment sports, language, and toys, amongst other things. Japanese cultural exports have been studied in a variety of disciplines, such as Asian studies (Iwabuchi, 2002; Yano, 2009), anthropology (Bestor, 2001), cross-cultural studies (Brienza, 2016), globalization of cuisine (Sakamoto & Allen, 2011), international relations (Otmazgin, 2008), translation (Oóhagan, 2007), visual arts (Chen, 2007), and even law (He, 2014). However, they have not been thoroughly examined from a business or managerial perspective. In this paper, I will start to examine the role of Japanese business in cultural exports.

LITERATURE REVIEW

The topic of cultural exports has been examined in a variety of different academic disciplines but has not gathered significant attention in the managerial literature. As discussed above, much of the literature pertaining to cultural exports provide deep analysis of a single

cultural export from a specific academic tradition or point of view. As such, many of the existing studies include interesting content descriptive documenting how Japanese cultural exports have spread, although they do not develop managerial theory or prescriptions. Matsui, Uehara, and Washida's (2014), in the area of international marketing, was the single paper I was able to identify which took a managerial viewpoint on cultural exports.

Interestingly enough, studies of "cultural exports" as an overall category do not seem to be prominent. The United Nations Educational, Scientific and Cultural Organization (UNESCO) has published analyses on cultural trade (UNESCO, 2016). The UNESCO (2016) study examined 6 cultural domains: 1. Cultural and natural heritage, 2. Performance and celebration, 3. Visual arts and crafts, 4. Books and press, 5. Audiovisual and interactive media, and 6. Design and creative services. It includes trade data by country covering these areas. These data are interesting, however, there are limits to effective identification and measurement of cultural exports. In effect, there is a gap between what economists would consider cultural trade and what students of culture and anthropology, for example, might consider cultural exports and imports. For example, trade statistics would not capture the export of a recipe available for free over the internet, but the recipe could, nonetheless, have impact on the importing or receiving culture. The UNESCO (2016) work is important because it identifies and quantifies cultural trade and considers how measurement could be improved. While UNESCO defines categories of cultural trade and how it seeks to measure them, there does not appear to be a well-accepted clear definition of the more broadly used term, "cultural exports." For now, I will work with the concept while acknowledging its vagueness.

The historical context of Japan as a cultural exporter

Many of the major cultural exporters have exported to colonies and former colonies, including European countries such as France, Germany, Italy, The Netherlands, Portugal, Spain, and The United Kingdom. The United States is a major cultural importer and exporter, initially exporting to countries where it had sent military troops. Other major cultural exporters include large countries which were not amongst the developed countries listed above, but had large groups of emigrants, including China and India.

Japan certainly did export culture to countries it occupied up until the end of world war II (Otmazgin, 2012). Continuing evidence of this remains in China, Korea, and Taiwan, as well as other parts of Southeast Asia. However, Japan essentially stopped doing this after World War II, and only began on a much smaller and informal scale much later. Indeed, Japan appears to have intentionally avoided cultural exports to Asia for some time after the war since they could bring negative sentiments and memories of the war in Asian countries (Otmazgin, 2012).

While Japan was similar to some of the other culture exporting nations mentioned above, it was different in other ways. For one, it was not one of the first countries in the world to industrialize and is was located outside of Europe. Another point of difference and contrast was that Japanese culture has been considered by the Japanese and others as being Japan specific and focused on the unique to Japan. This is in contrast to American culture, for example, which often emphasized the universal aspects (Bouissou, 2006). This is interesting because Japanese cultural exports have found successful markets abroad despite their supposed Japan-specificness. The tension between Japan specific and universal or non-Japan specific is a theme I will return to later in the paper.

Growth of Japanese cultural exports

Overall, there is clear evidence that Japanese cultural exports have taken a more prominent place in the world than they did in the past. Relating to exports of Japanese cultural trade, the UNESCO (2016) report found that Japan had moved from 10th place in 2004 to 3rd in 2013 in the area of audiovisual and interactive media, where its exports grew by 1,466% to hit US $925 million. The study also reported Japan being amongst the top 10 exporting countries in the areas of performance & celebration and design & creative services. It was in the top 20 exporters in areas of visual arts & crafts and books & press, despite its exports falling in both of these categories by more than 20% over the study period (UNESCO, 2016).

Examining several the growth of Japanese cultural exports on an anecdotal level, McGray (2002) noted that Pokemon has been translated into 30 languages and broadcast in 65 countries. It has also been on the cover of Time magazine. There are more than 10,000 different Hello Kitty items sold worldwide (McGray, 2002). Bouissou (2006) noted that Japanese Manga represented 38% of cartoon titles in France between 1990 and 2005. These are but a few examples supporting the notion that there has been a significant growth of Japanese cultural exports. Although much of the volume has been in exports to Asia, they have hardly been limited to the region.

Motivations behind cultural exports

There are numerous ways that culture can be exported. Some are deliberate, while others are the result of organic processes. For some products which are controlled by a single company, the motivation can be revenue growth through exports (for example San Rio's Hello Kitty, as discussed in Yano, 2009). Indeed, Jenkins (2004) argued that one of the major drivers of Asian cultural exports to global markets was large companies seeking to increase revenues by

identifying attractive content and deliver it to new markets. The existence of a large home market is often key to developing enough content to facilitate exports, as the case with Japanese anime and manga (Jenkins, 2004). Along this line of thinking, Bouissou (2006) presents a view of manga exports as being, in some ways, similar to export of vehicles and other manufactured goods. Japanese firms grew by building domestic production and then started exporting what they had done well at home. While some companies deliberately target growth in international sales at an early stage, others only think about internationalization after they realize that their products have found new international markets (Jenkins, 2004).

However, many cultural products do not clearly benefit a single or specific company. In some cases, a company may benefit from promoting cultural exports because they are associated with it although they do not "own" it. For example, the export of sushi appears to have benefited large Japanese producers of soy sauce such as Kikkoman and Japanese beer producers such as Sapporo. Sapporo beer entered the United States by selling to sushi restaurants, although their original target was the Japanese expatriate community who frequented these restaurants before sushi became more mainstream in the U.S. Growth in these kinds of categories depends on local interest and the existence of someone with the knowledge and interest of spreading it in the receiving country. In the case of sushi, for example, Japanese immigrants had opened Japanese restaurants in other countries, and these became more popular as sushi gained greater acceptance.

National governments promote cultural exports to increase the recognition of their country, their legitimacy and their country's "soft" power (Nye, 1990). Good will and a positive image are argued to be attractive sources of power for countries, like Japan, which do not want to pursue military power (Nye, 1990). However, countries often have limited abilities to promote culture, and may not understand where and how it is being consumed abroad. In an analysis of

the Japanese government's cultural policy, Otmazgin (2012) noted that the recent spread of Japanese cultural abroad, particularly in Asia, was due to the organic popularity of Japanese culture overseas; while the government has been promoting its spread through "Cool Japan" policy, this came *after* Japanese culture was growing in popularity.

Adjusting to local culture

Numerous authors have discussed the importance of adjusting the content of cultural exports to fit the host market. For example, Iwabuchi (1998) emphasized the role of "glocalizing" Japanese cultural artifacts has had in facilitating the spread of Japanese culture in a way that helped them integrate with local culture by including aspects of it. For example, in Pokeman, dumplings were changed to doughnuts, to make the food more familiar. Allison (2000) argues that the Mighty Morphin Power Rangers was a big hit in the United States partially because it was adapted to American tastes so that it would not appear to be foreign although it did appear to be new and innovative.

Matsui, Uehara & Washida (2014) suggest that cultural gatekeepers play an important role in facilitating cultural cross-border trade in creative industries, because of the need to bridge cultural barriers to trade. These gatekeepers, which exist on both the exporting and importing sides, facilitate cultural trade by adapting the content, managing existing stereotypes, by educating consumers about the products, and dealing with other cultural barriers (Matsui et al, 2014). Jenkins (2004) suggested that Japanese companies targeted children with their early exports, and then later adults, many of whom had grown up with Japanese toys and other products and were therefore more comfortable with increasingly Japanese content.

Sometimes cultural imports begin in an organic way and then modifications are made to make the items attractive to a broader audience. Initially, manga and anime entered the US through Japanese bookstores and other distributors which were focused on the local Asian immigrants. Local Otaku searched for these items and made them more popular. Only after this did they start to be commercially translated and adapted for the larger US market (Jenkins, 2004).

On the other hand, some Japanese manga and anime followed an approach of "*mukokuseki-ka*" (de-nationalization) which made them appear less Japanese to begin with (Iwabuchi, 2002). In visual products such as manga, anime, and games the characters were not recognizably Japanese.[1] This facilitated the spread of casual and often non-traditional Japanese culture to unexpected places through organic means as local people picked and chose what they liked (Iwabuchi, 2002).

Another reason why cultural exports were able to grow in an organic way was because they met a local need which the local culture did not. For example, Japanese martial arts a category of early exports of Japanese culture to the West, provided self-defense abilities that were practical for people who are trained but not physically strong.

Some of the cultural trade is about "splash-backs" where a prior cultural import is significantly changed and then re-exported. For example, Pokemon had its roots in early American cartoons (Watson, 2004). Similarly, California rolls were first made in the U.S., but made their way back to Japan.

Several authors discussed exports of cultural production systems or entertainment themes. Iwabuchi (1998) noted that in some markets, such as Korea and Taiwan, the Japanese

[1] This is not necessarily intentional to promote exporting, but rather is a style that has developed in Japan over the years.

idol system has been adopted, bringing its integration with drama television and music. Otmazgin (2008) discussed the role of Japanese media companies in spreading Japanese media and localization of Japanese style productions in East Asia in the 1990s. Similarly, we can think of the export of "Iron Chef" which eventually spawned a new theme in cooking television in the United States which went beyond the original.

ANALYSIS AND DISCUSSION

Altogether, existing literature on Japanese cultural exports has described how some specific cultural exports grew in popularity in international markets. Several themes we can take away from the literature include: (1) cultural exports often include organic aspects in addition to intentional aspects such as marketing undertaken by companies or governments; (2) cultural exports are adapted to make them more attractive to consumers in receiving countries; in this sense, authenticity or fidelity to the original cultural product is not necessarily a positive; (3) in the Japanese case, cultural exports which have found large followings abroad are from vibrant cultural communities in Japan – anime, manga, ramen, etc. have large and dynamic domestic markets (e.g., Bouissou, 2006; Solt, 2014), which may also be thought of as Porterian "diamonds" or "clusters" (Porter, 1990).

Considering the extant literature from a broad view, it becomes evident that there are different types of cultural exports. These different types spread in different ways. Below, I develop and discuss several types of cultural exports. After that, I return to the topic of the Japanese-ness, from the perspective of distance (Ghemawat, 2001).

Types of Japanese cultural exports

An examination of the cultural exports that are observable in different non-Japanese contexts together with the literature discussed above allows the inference of a sort of typology of Japanese cultural exports. I would suggest the following four types: product, category, theme, and system.

Products are identifiable works or physical products, for example a Pokemon character product, a specific anime movie or a musical recording. These are tradeable and their trade can be measured. Companies owning intellectual property rights to them have incentives to export them. However, intellectual property is often susceptible to copying. It is often in the interest of the property rights owner to protect it and prosecute unauthorized copying. Interestingly, Oóhagan (2007) suggests that Japanese copyright holders have not aggressively pursued a protective stance in many circumstances.

Categories of products or genres are, for example, manga, anime, sushi, and karaoke. As categories, they can spread organically, and generally there are no owners of property rights.

Themes are vaguer cultural concepts or notions which may be moved into new contexts. They include things like the concept of competitive cooking which spread after Iron Chef and *kawaii* – Japanese cute. These themes may be embedded into different categories or products.

Systems are ways of doing things which interconnect practices with different categories and products. For example, the Japanese idol system relates to production of music and video product categories.

Considering cultural exports through these four types allows us to better map involvement of business in the process of cultural exports. Analysis using these categories can also facilitate comparison of Japanese cultural exports with those from other countries. It seems

that Japan has exported a comparatively large number of systems and themes, whereas many other countries may have more emphasis on the exports of products.

"Japanese-ness" and distance

Japanese cultural exports exhibit an interesting tension between being "Japanese" and being global or attractive outside of Japan. This is sometimes visible by "*mukokuseki-ka*", which could include making characters which do not have Japanese looking faces. It is also observable in adjustments made to Japanese cultural exports, be them by the intellectual property owner or by gatekeepers (Matsui et al, 2014). The degree and nature of adjustment appears to depend on numerous things, including the degree to which the receiving country is familiar with or open to Japanese culture. Cultural distance is clearly another important point. Japanese culture exports appear to penetrate Asian markets more readily than Western because of cultural similarities and familiarity.

Having said that, it appears that Ghemawat's (2001) CAGE distance (Cultural, Administrative, Geographic, and Economic distance) framework may provide insight into cultural exports that extend beyond cultural distance. For example, administrative distance can affect the applicability of systems discussed above and economic distance can impact the nature of attractive cultural imports and how they are localized. Non-cultural aspects of distance could be particularly important for exporting cultural production systems.

One interesting aspect of culture is that it is most observable when put in contrast with other cultures (Hofstede, 2001). There are, therefore, assumptions and other aspects of culture embedded in almost everything, but many of them go unobserved. This makes the idea of globalizing or glocalizing cultural exports to increase their appeal abroad become not so simple

as it sounds. This observation supports Matsui et al's (2014) finding that there are gatekeepers on both exporting and receiving country sides for cultural exports. Put simply, the receivers will notice different things in the product, category, theme, or system, from those on the exporting side. These observations may lead to important adjustments for fitting local markets.

Conclusion

In this paper, I have started to examine Japanese cultural exports from a managerial perspective. Although Japan's cultural exports have gained attention in recent years, managerial research on Japanese cultural exports is notably lacking to date. There appear to be interesting research opportunities for management scholars in this area. While exports of cultural *products* arguably could be studied in the areas trade and entry mode in international business, *themes* and *categories* could provide interesting contexts for research since they do not revolve exclusively around a single intellectual property right owner. Actors include organizations, but also communities. The export of cultural producing *systems* could also be a fruitful context for managerial research, potentially using lenses such as network theory. Research could examine the requirements for replicating a cultural production *system* in a different cultural environment, for example.

On a practical level, research could examine the role of managers in adjusting cultural exports for different consumer groups in different receiving countries. Process analysis could be one approach to document and examine these adjustments.

Japanese culture exports have grown significantly in the last 20 years, giving a feeling that Japan has established a stronger position amongst the public in many countries. That may or may not be true, as continued conflicts with South Korea suggest. As Bouissou (2006) cautions,

just because a cultural product is popular does not mean that its consumers find the cultural exporting country attractive. On the other hand, local consumers may build high opinions of Japanese brands and makers of specific cultural products. These are positive developments for Japan.

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How open innovation accelerates product market strategies: Evidence from Japanese firms

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How open innovation accelerates product market strategies: Evidence from Japanese firms

Abstract

This research shows the contingency fit between open innovation and product market strategy. To investigate open innovation in detail, this study analyzes open innovation from two aspects: external search breadth and depth. This study investigates the effects of these concepts on three research and development (R&D) outcomes: innovation performance, new product development (NPD) speed, and firm performance. The results show that cost leadership strategy has a positive effect on firm profitability. Differentiation strategy has a positive effect on all three R&D outcomes. External search breadth barely has a positive effect on any of the R&D outcomes. External search depth has a positive effect on firm performance. When firms implement a cost leadership strategy, external search breadth has a positive and significant effect on both innovation performance and NPD speed. Under the same conditions, external search depth negatively correlates with innovation performance and firm performance. These results show that narrow and deep collaboration enhances R&D outcomes. Last, neither external search breadth nor depth has a significant effect on any of the R&D outcomes when firms implement a differentiation strategy. This study shows that open innovation by firms improves their R&D outcomes especially when firms select a cost leadership strategy. (255 words)

Keywords

Open innovation, product market strategy, performance, Japanese firms

“How open innovation accelerates product market strategies: Evidence from Japanese firms”

INTRODUCTION

Currently, most firms face the difficulty of enhancing their R&D outcomes even though the firms suffer from increased research and development (R&D) costs (Bloom, Jones, Van Reenen, & Webb, 2020). Some firms have not already relied on ‘in-house’ innovation and have gradually introduced ‘open’ innovation (Bogers, Chesbrough, & Moedas, 2018; Chesbrough, 2003; West & Bogers, 2013). Open innovation is defined as ‘the use of purposive inflows and outflows of knowledge to accelerate internal innovation and expand the markets for the external use of innovation, respectively’ (Chesbrough, 2003). ‘The use of the inflow of knowledge to accelerate internal innovation’ is known as ‘inbound open innovation’. Using inbound open innovation, focal firms can combine their existing knowledge with the external knowledge and efficiently create new knowledge (Ferreras-Méndez, Newell, Fernández-Mesa, & Alegre, 2015; Un & Asakawa, 2015; Zobel, 2017a). ‘The use of the outflow of knowledge to expand the markets for the external use of innovation’ is known as ‘outbound open innovation.’ Using outbound open innovation, focal firms directly sells their technological license to external partners or indirectly enhance the quality or quantity of complementary products even when the focal firms cannot directly accept payback for the technologies. These complementary products increase the focal firms’ revenue (Cassiman & Valentini, 2016; Conti, 2014). Many

researchers show the positive effects of both outbound and inbound open innovation on focal firms' performance (Bogers, Chesbrough, et al., 2018; Gassmann, Enkel, & Chesbrough, 2010; Randhawa, Wilden, & Hohberger, 2016; West, Salter, Vanhaverbeke, & Chesbrough, 2014).

Along these lines, a focal firm's managers must align the firm's R&D policy with its product market strategy. However, except in the field of business model innovation, previous research considers R&D policy and product market strategy separately (Chesbrough, 2007, 2010, 2013; Chesbrough & Appleyard, 2007; Deck, 2008; Foss & Saebi, 2018; Zhu, Xiao, Dong, & Gu, 2019). This research considers the contingency fit between open innovation and product market strategy. A previous study shows that conducting open innovation imposes some costs and indicates that excessive use of open innovation deteriorates firm performance (Laursen & Salter, 2006). It proposes that focal firms cannot maintain their low-cost positions when they implement open innovation. Therefore, this study focuses especially on the relationship between the cost side of open innovation and product market strategy. This study shows that focal firms employing a cost leadership strategy can enhance their R&D outcomes when they introduce 'wide but shallow' collaboration or 'narrow and deep' collaboration with external entities. However, focal firms cannot maintain their low-cost positions when they introduce 'wide and deep' collaboration with external entities. In addition, this research shows that open innovation does not improve R&D outcomes when focal firms employ a differentiation strategy. Thus, this research provides additional insight into open innovation and

product market strategy.

This study is composed of six sections. In the second section, I review the previous research and draw this study's hypotheses. In the third section, I explain the research design, data sources and definitions of the variables. In the fourth section, I reveal the results of this study. In the fifth section, I discuss further explanations of the results. Finally, I provide overall conclusions regarding this study, discuss the limitations of the research, and suggest possibilities for future research.

THEORY AND HYPOTHESES

In this section, I review the previous research on open innovation. Then, I consider the effect of open innovation when a focal firm has implemented one of the product market strategies. Figure 1 presents our model. The straight lines indicate our hypotheses, and the dotted lines indicate the controls.

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Open innovation

The research on open innovation started with the seminal work of Chesbrough (Chesbrough, 2003). The early research was mainly focused on building theories and gathering

case studies (Chesbrough, 2003; Dodgson, Gann, & Salter, 2006; Henkel, 2006; Owen-Smith & Powell, 2004; Rigby & Zook, 2002; von Hippel & von Krogh, 2003). Referring to these early studies, subsequent researchers conducted statistical analyses based on data from national surveys or questionnaires (Asakawa, Nakamura, & Sawada, 2010; Roper, Vahter, & Love, 2013; Un & Asakawa, 2015; Wang, Libaers, & Park, 2017; Zhu et al., 2019; Zobel, 2017a). In the short history of open innovation research, the research focuses on the following topics: inbound or outbound open innovation (Chesbrough, 2003; von Hippel & von Krogh, 2003), external search breadth or depth (Laursen & Salter, 2006; Terjesen & Patel, 2017; Zhu et al., 2019; Zobel, 2017a), codified knowledge search or experience-based knowledge search (Chen, Chen, & Vanhaverbeke, 2011), collaboration with business firms or academic institutions (Asakawa et al., 2010; Scandura, 2016), collaboration with upstream players or downstream players (Un & Asakawa, 2015), sourcing from established organizations or crowds (Foss & Saebi, 2017; Zott, Amit, & Massa, 2011), and the effect of open innovation on product innovation or process innovation (Un & Asakawa, 2015). This study focuses on inbound open innovation and considers external search breadth or depth.

Generally, inbound open innovation has a positive effect on R&D outcomes (Bogers, Chesbrough, et al., 2018; Gassmann et al., 2010; Randhawa et al., 2016; West et al., 2014). However, some researchers also recognize some limitations of inbound open innovation (Laursen & Salter, 2006, 2014). One of the limitations is that focal firms incur some amount of

costs when they collaborate with external entities (Laursen & Salter, 2006). For instance, in the research field of strategic alliances, a focal firm might impose some 'transaction' cost when it formally associates itself with external partners using contracts (Krishnan, Geyskens, & Steenkamp, 2016; Reuer & Lahiri, 2014; Wang & Rajagopalan, 2015; Williamson, 1979). In addition, most large firms do not rely on a single alliance but make portfolios of strategic alliances. This means that focal firms incur very large costs from alliances. Under these circumstances, focal firms must examine the effect of each alliance and sometimes adjust the type and number of partners they associate with and the content of each alliance (Vanhaverbeke, Belderbos, Duysters, & Beerkens, 2015).

On a related note, the definition of open innovation does not clearly mention how to acquire external knowledge. Therefore, some prior studies include both formal alliances and informal collaborations as open innovation (Asakawa et al., 2010; Bogers, Chesbrough, et al., 2018; Gassmann et al., 2010; Randhawa et al., 2016; West et al., 2014). Under the latter circumstance, some firms might maintain relationships without any formal contracts when they collaborate with external entities. However, focal firms incur not only transaction costs but also opportunity costs when their managers or employees are dedicated to maintaining such relationships. Further, focal firms incur additional costs when they first start to collaborate with additional external entities even without any formal contracts. In sum, focal firms' costs increase as the firms widen their scope of collaboration partners. Under these circumstances,

when the marginal cost of collaboration gradually increases and outweighs the benefit from the inflow of external knowledge, the focal firms' net benefit from the open innovation must finally become negative. To analyze the scope of collaboration, prior research has developed external search breadth and depth measurements (Laursen & Salter, 2006; Terjesen & Patel, 2017; Zhu et al., 2019; Zobel, 2017). Some empirical research already confirms that external search breadth and depth have an inverted-U shape effect on R&D outcomes (Laursen & Salter, 2006).

This study reconsiders the concepts of external search breadth and depth. This is because the axes of breadth and depth establish the four quadrants (also see table 1). We understand that narrow and shallow collaboration cannot be defined as open innovation; rather, such collaboration should be seen as 'stand-alone'. The other three quadrants, i.e., wide and shallow, narrow and deep, and wide and deep, might be defined as open innovation based on recent business model innovation studies (Foss & Saebi, 2017, 2018). However, the prior research ambiguously analyzes these three quadrants. Therefore, this research reconsiders each quadrant of open innovation.

First, this study considers 'wide and shallow' collaboration. In contrast to external search depth, previous research recognizes external search breadth as wide and shallow collaboration. Previous research also indicates that focal firms incur additional costs as they increase their external search breadth. This is because wide collaboration forces focal firms to cope with the opportunism of their multiple counterparts (Laursen & Salter, 2006; Terjesen & Patel, 2017;

Williamson, 1979; Zhu et al., 2019; Zobel, 2017a). However, some firms utilize so-called 'crowdsourcing,' which can be classified as wide and shallow collaboration (Agrawal, Gans, & Goldfarb, 2018; Foss & Saebi, 2017, 2018). In these cases, the focal firms can conduct wide collaboration with boilerplate contracts and homogeneous relationships, which means that the focal firms can conduct wide collaboration without substantial costs. In addition, some studies anecdotally state that crowdsourcing can efficiently solve difficult problems (Agrawal et al., 2018; Foss & Saebi, 2017, 2018). Therefore, this study hypothesizes that wide collaboration will accelerate the inflow of knowledge without substantial costs after information technologies are improved and crowdsourcing schemes are introduced.

Second, 'narrow and deep' collaboration also accelerates the inflow of knowledge without substantial costs (Ferreras-Méndez et al., 2015; Zhu et al., 2019; Zobel, 2017a). This is because focal firms can easily establish trust among a small number of partners and can then efficiently manage those partners without substantial costs (Andrevski, Brass, & Ferrier, 2013; Krishnan et al., 2016; Poppo, Zhou, & Li, 2016). For example, Japanese 'Keiretsu' or corporate groups concentrate on a small number of business partners, but they collaborate deeply with those partners. Keiretsu members not only exchange their knowledge with each other but also temporarily transfer their engineers to each other based on their mutual trust (Dyer, 1996; Kim, Hoskisson, & Wan, 2004).

Finally, 'wide and deep' collaboration imposes substantial costs on focal firms. As already

mentioned, ‘wide but shallow’ collaboration might not impose a substantial amount of additional costs when focal firms introduce the new crowdsourcing schemes (Agrawal et al., 2018; Foss & Saebi, 2017, 2018). However, ‘wide and deep’ collaboration cannot be employed with boilerplate contracts and loose monitoring. This is because, in this situation, focal firms adopt heterogeneous transactions with distinct partners. Therefore, the firms must incur a substantial amount of additional costs: the costs of searching for better partners, negotiating and completing contracts, and strictly monitoring the partners’ opportunistic behaviors (Laursen & Salter, 2006; Terjesen & Patel, 2017; Williamson, 1979; Zhu et al., 2019; Zobel, 2017a). In addition, focal firms must manage the transaction costs and opportunity costs required to maintain the relationships with partners even when the focal firms conduct informal collaboration. Simply put, ‘wide and deep’ collaboration imposes more costs than ‘wide but shallow’ or ‘narrow and deep’ collaboration. Certainly, prior research indicates that network hubs or structural halls can efficiently gather external information (Bianchi, Frattini, Lejarraga, & Di Minin, 2014; Kiron, 2012; Shu, Wang, Gao, & Liu, 2015). However, focal firms must consider the cost of maintaining collaboration networks.

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Open innovation patterns and product market strategies

In addition to the cost of open innovation, focal firms' acquisition of the specific knowledge that corresponds to their product market strategies is important. As mentioned above, 'wide and deep' collaboration imposes more costs than 'wide but shallow' or 'narrow and deep' collaboration. To maintain its current low-cost positioning, a firm employing a cost leadership strategy might select 'wide but shallow' or 'narrow and deep' collaboration. Prior research also indicates that knowledge from a few close partners can be useful for cost reduction (Zhu et al., 2019; Zobel, 2017a). As mentioned above, information technologies have dramatically improved, and therefore, the cost of 'wide but shallow' collaboration, such as crowdsourcing, has continuously decreased. When focal firms can acquire cost reduction ideas from other industries through 'wide but shallow' collaboration, the focal firms can strengthen their cost position (Agrawal et al., 2018; Foss & Saebi, 2017, 2018). Therefore, the firm employing the cost leadership strategy might select 'wide but shallow' or 'narrow and deep' collaboration. As defined in detail below, external search breadth counts the number of knowledge sources with which a focal firm collaborates; the types of knowledge sources are classified as customers, suppliers, distributers, competitors, etc. This measurement only considers whether the focal firm collaborates with some knowledge sources; it does not consider the extent of the collaboration. In contrast, external search depth counts the number of knowledge sources with which the firm 'deeply' collaborates. This means that 'narrow and deep' collaboration corresponds to a low level of external search depth. Considering these

explanations and the definitions, this study makes the following hypotheses.

H1a: A focal firm employing a cost leadership strategy enhances its R&D outcomes when it widens its external search breadth.

H1b: A focal firm employing a cost leadership strategy enhances its R&D outcomes when it narrows its external search depth.

Previous research indicates that cutting-edge ideas come from wide collaboration and that focal firms utilize these ideas for differentiation strategies (Ferreras-Méndez et al., 2015; Zhu et al., 2019; Zobel, 2017a). This study reclassifies wide collaboration into 'wide but shallow' and 'wide and deep' collaboration. Even when focal firms select the same breadth for their external searches, the depth of the external searches affects the quality of the knowledge obtained. Prior research indicates that deep external searches can lead to the acquisition of a higher quality of knowledge than shallow external searches (Ferreras-Méndez et al., 2015; Gianiodis, Ettlie, & Urbina, 2014; Snihur & Wiklund, 2019). However, this study already indicates that 'wide and deep' collaboration imposes more costs than 'wide but shallow' collaboration. Therefore, we must compare the net benefit from deep collaboration when the costs of implementing shallow or deep collaboration are considered. Simply put, this study presumes that both 'wide but shallow' and 'wide and deep' collaboration might acquire the net

benefit of the external search even considering the cost of each type of collaboration. Therefore, this study makes the following hypotheses.

H2a: A focal firm employing a differentiation strategy enhances its R&D outcomes when it widens its external search breadth.

H2b: A focal firm employing a differentiation strategy enhances its R&D outcomes when it widens its external search depth.

RESEARCH METHODOLOGY

Research sample and data collection

Research sample

Previous research mainly uses data from developed countries such as the United States and the European Union countries (Bogers, Foss, & Lyngsie, 2018; Dodgson et al., 2006; Laursen & Salter, 2006; Lichtenthaler & Lichtenthaler, 2009). This study uses survey data and archival data from Japanese firms. The Japanese economy is classified as a developed economy, but it is also classified as an Asian economy. The automobile and electronics industries are prominent in Japan, and several top-class research universities are located there. However, except for Asakawa et al. (2010), few studies on open innovation have been conducted in Japan. To confirm the effects of open innovation at the other research sites, this study tests the hypotheses

using data from Japanese firms.

This study's sample includes all public firms (3,657 firms) except financial institutions and real estate investment trusts (REITs). Recently, even service firms have heavily invested in R&D activities. For example, software makers and telecom companies are classified as service industries, but these businesses are also classified as knowledge-based industries and heavily invest in information technologies. Currently, even retailers and wholesalers rely on information technologies. Online retailers (Amazon.com, etc.) and online wholesalers (Alibaba Group, etc.) heavily invest not only in information technologies but also in transportation technologies. Even traditional retailers (Walmart and Seven-Eleven, etc.) invest in such technologies to enhance their marketing, product development, and delivery capabilities. Therefore, this study selects all public industrial firms.

Data collection

This study uses public financial data and questionnaire survey data. To follow previous studies using non-English questionnaires, this study also introduces the recommended procedures (Gerbing & Anderson, 1988; Troilo, De Luca, & Atuahene-Gima, 2014; Yang & Tsai, 2019; Zhu et al., 2019). For this study, I developed questionnaire text in English, using text that had already been used in related studies (Chen & Hambrick, 1995; Ferreras-Méndez, Fernández-Mesa, & Alegre, 2016; Flatten, Engelen, Zahra, & Brettel, 2011; Laursen & Salter,

2006; Zhu et al., 2019). Then, I translated the text into Japanese. To evaluate the accuracy of the translated text, the research collaborator back-translated the text into English and confirmed the conceptual correspondence between the English and Japanese versions. In addition, the Japanese version of the questionnaire was pretested with 15 research collaborators who were studying in an MBA evening program and held middle or senior manager positions in large Japanese firms or the subsidiaries of large Western firms. To improve the respondents' understanding of the questionnaire, the text was revised based on feedback from these managers. Thus, the Japanese version of the questionnaire was finalized.

After these procedures, I mailed the paper-based questionnaires with cover letters to the chief technology officers (CTOs) or R&D directors of the selected sample firms. For the firms classified under service industries, such as retailers or wholesalers, the cover letters asked that the questionnaires be fulfilled by the chief information officers (COIs) or the directors of the information technology department in the firms. This is because traditional service firms currently have a department of information technology, at least. The questionnaires were completed from February to March 2020. I received completed questionnaires from 241 firms, for a response rate of 7.0%. This response rate was slightly lower than expected. One of the reasons was the effect of the COVID-19 pandemic. The Japanese government declared a state of emergency due to COVID-19 on 7th April. Before the declaration, some firms had already required or recommended that managers and employees work from home. Under this

circumstance, it is difficult for paper-based questionnaires to reach CTOs and R&D directors. However, some related studies show a similar response rate even under normal circumstances (Fredrich, Bouncken, & Kraus, 2019; Nagy, Jaakkola, & Koporcic, 2019).

Bias check

Nonresponse bias is a critical problem, especially when response rates are low. It is critical for this study to check for nonresponse bias because I expect that firms that had required or recommended that managers and employees work from home early in the pandemic might not have been inclined to return the questionnaire. The different decisions related to COVID-19 might have created some biases. To test for nonresponse bias, this study employed a commonly used approach from a previous study (Armstrong & Overton, 1977; Yang & Tsai, 2019). Under this approach, late respondents can be assumed to be representative of nonrespondents. Then, the late respondents are compared with the early respondents to determine whether the two groups have similar attributes. This study separated the respondents into two groups based on the dates the respondents' questionnaires were received. As mentioned above, this study selected public firms as the population, and I used financial data from the firms' annual reports. Then, I utilized the database Nikkei Financial Quest, which is provided by the Japanese newspaper group Nikkei, Inc. This study employed the firms' age and assets to compare the firms' attributes between the two groups (Zhu et al., 2019; Zobel, 2017b). The comparative test

showed no significant difference between them.

In addition, I checked for common method bias. This study collected the independent and dependent variable data from the same respondents. The independent and dependent variables are naturally affected by the respondents' subjective views. Under these circumstances, such subjective responses create common method bias (Podsakoff, 1986; Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). To overcome common method bias, I employed both the ex ante and ex post methodologies that previous research has discussed (Alison & Linnehan, 1995; Scott & Bruce, 1994; Simonin, 1997; Tsang, 2002). First, I designed the questionnaires using Likert scales with different points to weaken common method bias; we adopted a four- or seven-point Likert scale for the independent variables and a five-point Likert scale for the dependent variables. Second, except for variable market dynamism, all control variables were from the archival data. Last, I performed Harman's single-factor test. The first component represented less than 30% of all components; therefore, no common method bias was detected. Therefore, I concluded that the samples were acceptable for analyzing the hypotheses of this study.

Measurement

Independent variables

Open innovation: External search breadth and depth

To measure external search breadth and depth, this research adopted the measurement of

Laursen & Salter (2006), which several prior studies have employed (Ferreras-Méndez et al., 2015; Terjesen & Patel, 2017; Zhu et al., 2019; Zobel, 2017a). Under this measurement, a focal firm's external search breadth was determined by the number of types of knowledge sources with which the focal firm collaborates. Laursen & Salter (2006) employ a U.K. innovation survey that classifies collaboration partners into sixteen knowledge sources. Then, they count the number of knowledge sources with which the focal firm collaborates. This study also employed a similar measurement and classified the types of knowledge sources into twelve categories: suppliers, customers, distributers, competitors, other industries, consultants, venture capitalists, universities, nonprofit research institutions, technology licensing organizations (TLOs), offices that are related to intellectual property rights, and others (Ferreras-Méndez et al., 2015; Terjesen & Patel, 2017; Zhu et al., 2019; Zobel, 2017a). This study asked CTOs or R&D directors whether their firms collaborate with some types of knowledge sources. This study converted these responses into dummy variables (0 = not collaborating with a knowledge source; 1 = collaborating with a knowledge source) for each knowledge source and then summed the dummy variables by firm. None of the respondents answered that their firms collaborate with 'others'. Therefore, the maximum number of 'external search breadths' was eleven.

By definition, even when a focal firm collaborates with several partners within the same type of knowledge source, the number of knowledge sources is one. Thus, external search

breadth merely measures the number of knowledge sources. In other words, external search breadth does not measure any intensities of open innovation, e.g., frequency or closeness. To overcome this problem, Laursen and Salter (Laursen & Salter, 2006) introduce the measurement of external search 'depth'. External search depth measures the intensity of collaboration with a type of knowledge source. Laursen and Salter (2006) use a three-point Likert scale based on a U.K. innovation survey and count the number of knowledge sources whose Likert scale score is three. Other related studies use questionnaire surveys, and the ranges of the Likert scales are not the same as those of the U.K. innovation survey (Ferreras-Méndez et al., 2015; Terjesen & Patel, 2017; Zhu et al., 2019; Zobel, 2017a). However, the studies also count the number of knowledge sources whose Likert scale scores are above the median value. To precisely measure the external search depth, this study used a four-point Likert scale ranging from 1 (barely collaborate with a knowledge source) to 4 (deeply collaborate with a knowledge source). I counted the number of knowledge sources whose Likert scale score was four. Thus, the values of the external search depth variable ranged from zero to eleven, similar to the range for external search breadth.

Product market strategy: cost leadership and differentiation

Most empirical research adopts Porter's generic strategies as product market strategies (Porter, 1985), and this research also used questionnaire surveys (Fainshmidt, Wenger,

Pezeshkan, & Mallon, 2019; Koka & Prescott, 2008; Narver & Slater, 1990; Slater & Narver, 1995; Zott & Amit, 2008). This study employed the measurement of product market strategy from Zott & Amit (2008), which is used by related studies (Zhu et al., 2019) (also see Appendices A and B). This study asked CTOs and R&D directors to complete questionnaires about their firms' product market strategy using a seven-point Likert scale ranging from 1 (does not use this strategy) to 7 (it is a very important strategy). This study combined the product market strategy items using factor analysis. The items for cost leadership and differentiation converge to a single factor (eigenvalue >1.0). The Cronbach alpha for differentiation and cost leadership are .737 and .762, respectively.

Dependent variables

To measure the effect of open innovation, a study should measure the extent of R&D outcomes. Previous research employs various kinds of measurements of R&D outcomes (Asakawa et al., 2010; Barrena-Martínez, Cricelli, Ferrándiz, Greco, & Grimaldi, 2020; Laursen & Salter, 2006; Tether & Tajar, 2008; Zhu et al., 2019; Zobel & Hagedoorn, 2018). Some previous studies focus on two aspects of R&D outcomes: innovation performance and NPD speed (Cankurtaran, Langerak, & Griffin, 2013; Chen, Damanpour, & Reilly, 2010; Chen & Hambrick, 1995; Ferreras-Méndez et al., 2016; Zhu et al., 2019). I also adopted the measurement of firms' overall profitability from previous related research (Ferreras-Méndez et

al., 2016). To measure the three variables—innovation performance, NPD speed, and profitability—I directly introduced the measurement from Ferreras-Méndez et al. (2016) and Zhu et al. (2019) (also see Appendices B, C, and D). I asked the CTOs or R&D directors how they evaluate their firms' innovation performance, NPD speed, and profitability on a five-point Likert scale ranging from 1 (not satisfied) to 5 (very satisfied). After receiving the questionnaires completed by the CTOs or R&D directors, I combined the observable items of the three R&D outcomes using factor analysis. The items for these three variables converge to a single factor (eigenvalue >1.0). The Cronbach alphas for innovation performance, NPD speed, and profitability are .857, .853, and .857, respectively.

Control variables

To control for other effects on the dependent variables, this study employed firm size, firm age, market dynamism, and industries as control variables. These control variables are common in previous studies (Fredrich et al., 2019; Hagedoorn, Lokshin, & Zobel, 2018; Kohtamäki, Heimonen, & Parida, 2019; Santoro, Bresciani, & Papa, 2020; Yang & Tsai, 2019). This study obtained its data on all control variables except market dynamism from the Nikkei Financial Quest database. The database is created from firms' annual reports. I obtained the data related to these control variables for fiscal year 2018, which was the most recent data in the database at the time the questionnaires were received. I collected the market dynamism items from the

questionnaire survey. I explain the measurement of each variable below.

We selected all public firms in Japan; therefore, the size of each firm is quite different. To control for differences in size, previous research introduces firms' revenue, the amount of assets, or the number of employees (Fredrich et al., 2019; Hagedoorn et al., 2018; Kohtamäki et al., 2019; Santoro et al., 2020; Yang & Tsai, 2019). This study selected the number of employees to control for size differences (Ferreras-Méndez et al., 2016). To overcome such a variety of industry features, I used the number of employees to represent firm size. I obtained the number of full-time employees and created a logarithm (Ferreras-Méndez et al., 2016).

Previous research also uses firm age as a control variable to control for the accumulated experiences, knowledge, and capabilities in firms (Cassiman & Valentini, 2016). In particular, R&D-related knowledge consists of various kinds of factor technologies and expertise. It is necessary for most firms to accumulate such factor technologies and expertise for long-term success. Established firms with long histories accumulate more of this knowledge than new ventures. To control for differences in firm history, this study introduced firm age as the control variable. I counted each firm's age from the year it was established to 2020 and then changed the number of years into a logarithm (Ferreras-Méndez et al., 2016).

This study introduced 'market dynamism' as a control variable. Generally, many firms introduce open innovation not only to efficiently collect external knowledge but also to adapt to fast-changing environments (Ferreira, Coelho, & Moutinho, 2020; Loon, Otaye-Ebede, &

Stewart, 2020; Warner & Wäger, 2019). In particular, information technology-related industries, including the electric device, telecom device, software, and internet peripheral business industries, must implement open innovation to efficiently search for and collect critical external knowledge. Prior research also controls for this variable (Fuentes-Fuentes, Albacete-Sáez, & Lloréns-Montes, 2004; Jansen, Bosch, & Volberda, 2006; Zhu et al., 2019). Therefore, this study introduced the variable. I adopted a measurement from previous research (Jaworski & Kohli, 1993); it is one of the most commonly used measurements of market dynamism (Fuentes-Fuentes et al., 2004; Jansen, Van Den Bosch, & Volberda, 2005; Zhu et al., 2019). This study asked CTOs or R&D directors how they evaluate their firms' market dynamism on a seven-point Likert scale ranging from 1 (does not explain our market environment) to 7 (precisely explains our market environment) (also see Appendix F).

Finally, this study employed the industries to which each firm belongs to control for the features of each industry. As I mentioned previously, I selected all Japanese public industrial firms. This study considered that a firm that belongs to a weak intellectual property (IP) regime would hesitate to collaborate with external entities because of concerns about leaking its critical knowledge. Therefore, this study focused on each industry's intellectual property regime (Dushnitsky & Lenox, 2005; Dushnitsky & Shaver, 2009; Katila, Rosenberger, & Eisenhardt, 2008). Referring to a prior study, this study classified the chemical, pharmaceutical, and medical device industries as strong IP regime industries. This study classified the printing,

electronic device, telecom device, telecommunication, and software industries as weak IP regime industries. This study adopted the Japanese Standard Industrial Classification (SIC) code, which is similar to the United States' classification code, and I introduced dummy variables for each industry.

RESULTS

To check the variance of the dependent variables, I used the Breusch-Pagan test, which showed that the variances of error terms have homoscedasticity. Therefore, we applied ordinary least square regressions. We tested a series of models with P-values, R2 values, and adjusted R2 values, which are shown at the bottom of each table (see tables 2, 3, and 4). All the models are valid because the P-values are less than 0.01. The average VIF is less than 1.167, and the maximum VIF is less than 1.904. These levels are far below the threshold (Hair, Black, Babin, & Anderson, 2013; Kutner, Nachtsheim, Neter, & Li, 2005); thus, multicollinearity is not a major concern for our models.

Table 1 shows the descriptive statistics and correlation matrix of the variables. Combining each item by factor analysis, the means of the dependent variables (innovation performance, NPD speed, and profitability) and the independent variables (cost leadership and differentiation) are equal to zero. The control variables for industries are dummy variables. Following the previous studies, the variables of external search breadth and external search

depth are the sum of each item; therefore, the minimums of the variables are equal to zero (Ferreras-Méndez et al., 2015; Laursen & Salter, 2006; Terjesen & Patel, 2017; Zhu et al., 2019; Zobel, 2017a). Table 1 states that three dependent variables are mutually correlated. Firm size is correlated with firm age: In other words, the older the firm is, the greater the firm size is. The software industry has a positive relationship with profitability and market dynamism and a negative relationship with firm size and age. Differentiation has a positive relationship with innovation performance, firm size, market dynamism, and cost leadership. External search breadth has a positive relationship with firm size and differentiation. External search depth has a positive relationship with differentiation and external search breadth.

Table 2 shows the results of these analyses. Cost leadership has a positive effect on firm performance in models 22 and 27 ($p < 0.05$). Differentiation has a strongly positive effect on all three R&D outcomes in all models ($p < 0.01$ or 0.05). External search breadth has a positive but weak effect on innovation performance in models 3 and 6 ($p < 0.10$). However, external search depth has a positive and significant effect on firm performance in models 25, 27, and 30 ($p < 0.05$).

I tested the hypotheses of this study. Hypothesis 1a predicts that a focal firm employing a cost leadership strategy enhances its R&D outcomes when it widens its external search breadth. As mentioned above, cost leadership strategy does not have a direct positive effect on innovation performance or NPD speed. However, the results of these analyses show that the

interaction effect between cost leadership and external search breadth has a positive effect on both innovation performance and NPD speed in models 10, 16, and 20 ($p < 0.05$). Hypothesis 1a is supported (also see figures 3 and 4). Hypothesis 1b predicts that a focal firm employing a cost leadership strategy enhances its R&D outcomes when it narrows its external search depth. The results of these analyses show that the interaction between cost leadership and external search depth has a negative effect on both innovation performance and profitability in models 7, 10, and 30 ($p < 0.05$). External search depth counts the number of knowledge sources with which a firm 'deeply' collaborates. This means that 'narrow and deep' collaboration corresponds to a low level of external search depth. Thus, the parameter of external search depth becomes negative when narrow and deep collaboration enhances R&D outcomes. Therefore, hypothesis 1b is supported (also see figures 5 and 6).

Hypothesis 2a predicts that a focal firm employing a differentiation strategy enhances its R&D outcomes when it widens its external search breadth. As mentioned above, differentiation has a strongly positive effect on all three R&D outcomes in all models. However, the interaction between differentiation and external search breadth does not have any significant effect on all three outcomes. Hypothesis 2a is not supported. Hypothesis 2b predicts that a focal firm employing a differentiation strategy enhances its R&D outcomes when it widens its external search depth. The interaction between differentiation and external search depth also does not have any significant effect on all three outcomes. Hypothesis 2b is not supported.

I tested the other variables as follows. Market dynamism has a positive effect on NPD speed ($p < 0.01$ or 0.05). The medical device industry has a negative effect on all three R&D outcomes ($p < 0.01$ or 0.05). The software industry has a positive effect on all three R&D outcomes ($p < 0.01$ or 0.05).

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DISCUSSION

The results of these analyses show that cost leadership does not have an effect on innovation performance or NPD speed but does have a positive effect on firm performance. This is because cost leadership is not an R&D policy but a product market strategy that promotes firm performance. Therefore, a cost leadership strategy is not necessarily required to enhance a firm's R&D capabilities; it only enhances firm performance. In contrast, differentiation has a positive effect not only on firm performance but also on innovation performance and NPD speed. It is reasonable that a firm must have a differentiation strategy to enhance its R&D capabilities to make 'differences' against competitors. Therefore, a firm dedicated to differentiation will heavily invest in R&D activities, and then its innovation performance and NPD speed also will be enhanced. This research only reconfirms that external search breadth has a positive but weakly significant effect on innovation performance. External

search depth has a strongly positive effect on firm performance. It must be the case that a firm that deeply collaborates with external entities can acquire more detailed knowledge rather than a firm that widely collaborates. This knowledge might include not only R&D knowledge but also operational knowledge. This knowledge might enhance not only innovation performance and NPD speed but also firm performance.

The interaction between external search breadth and cost leadership has a positive effect on both innovation performance and NPD speed. Prior studies indicate that when a focal firm widely collaborates with external entities, the focal firm must adapt for the various entities, and it incurs the excess transaction costs. Finally, a firm with wide collaboration deteriorates its R&D outcomes. However, these results reveal that the firm could efficiently pick up external R&D knowledge using 'wide but shallow' collaboration, such as a crowdsourcing scheme, without substantial transaction costs. The interaction between external search depth and cost leadership has a negative effect on both innovation performance and firm profitability. This means that a firm employing a cost leadership strategy can enhance its R&D outcomes if it implements 'narrow and deep' collaboration. Prior research indicates that a firm with a cost leadership strategy can establish trust among partners and efficiently acquire external partners' knowledge when the focal firm focuses on a smaller number of collaboration partners (Hagedoorn et al., 2018; Zhu et al., 2019). This study reconfirms the previous research.

However, this study reveals that the interaction between external search breadth and

differentiation does not have a statistically significant effect, even when differentiation has a positive effect on all three R&D outcomes. Under the same conditions, the interaction between external search depth and differentiation also does not have a statistically significant effect. I suspect that a firm employing a differentiation strategy has already heavily invested in 'in-house' R&D activities. Such a firm is also equipped with absorptive capacity from the byproducts of its 'in-house' R&D activities (Cohen & Levinthal, 1990). Naturally, we suppose that a firm employing a differentiation strategy enhances its R&D outcomes. However, a focal firm incurs a substantial amount of costs from R&D expenditures and transaction costs when the firm implements both differentiation and external collaboration. I suppose that these costs exceed the benefits from in-house R&D and external collaboration.

CONCLUSION

This research shows the relationship among open innovation, product market strategy, and firm R&D outcomes. First, differentiation enhances three R&D outcomes—innovation performance, NPD speed, and firm performance—but cost leadership enhances only firm performance. External search breadth barely affects firm performance, but external search depth has a positive effect on firm performance. On the other hand, when a firm employs a cost leadership strategy, external search breadth enhances the firm's innovation performance and NPD speed. In the same situation, external search depth negatively correlates with innovation

performance and NPD speed. This means that narrow and deep collaboration might enhance R&D outcomes. This study does not confirm the statistically significant effect of the interaction between external search breadth and differentiation. This study also does not confirm the statistically significant effect of the interaction between external search depth and differentiation. Considering these new findings, this study adds and complements the prior studies of open innovation.

This study has some limitations. First, this research design is confined to cross-sectional data. Future studies should use panel data. Second, the data obtained through our survey include subjective information. We use both dependent and independent variables obtained through the survey. Although our ex ante and post hoc statistical remedies to control for possible common method variance revealed no significant issues, avoiding potential ex ante common method variance may be preferable in future research designs (Chang, van Witteloostuijn, & Eden, 2010). Third, I mailed my questionnaires during the COVID-19 pandemic. Although I tested for nonrespondent bias and confirmed that my sample does not have any bias, the response rate was 7.0%, which was lower than expected. I think that it will be difficult for most researchers to collect enough samples through questionnaires for some time. Future research should adopt other methodologies, such as online questionnaires, even though the other methodologies also have some disadvantages. Last, I gathered data only from Japanese public firms. However, future research should also investigate not only small or private Japanese firms but also firms

in other countries or regions to reconfirm the relationship between open innovation and absorptive capacity.

FIGURES AND TABLES

Figure 1. Theoretical model and hypotheses

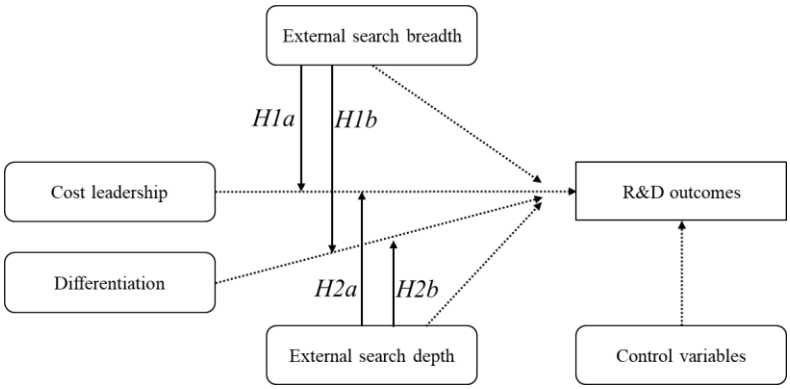

Figure 2. Variety of open innovation

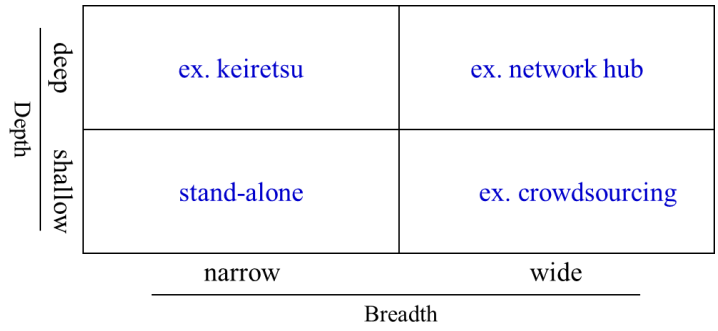

Table 1. Descriptive statistics and correlations

	Variable	Obs.	Mean	S.D.	Min.	Max.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
(1)	Innovation performance	239	0.000	1.440	-3.981	3.392	1																	
(2)	Innovation speed	242	0.000	1.787	-4.124	5.751	0.636**	1																
(3)	Profitability	240	0.000	1.678	-4.108	4.426	0.649**	0.504**	1															
(4)	Firm size	241	7.223	1.772	2.773	12.300	0.095	0.027	-0.075	1														
(5)	Firm age	242	7.431	0.617	4.727	8.225	-0.008	-0.064	-0.103	0.384**	1													
(6)	Market dynamism	241	0.000	1.397	-3.699	3.065	0.071	0.204	0.135	0.029	-0.225	1												
(7)	Chemical	242	0.050	0.218	0	1	0.043	0.028	0.078	0.083	0.128	0.058	1											
(8)	Pharmaceutical	242	0.012	0.111	0	1	-0.015	0.008	0.009	0.075	0.094	0.028	-0.026	1										
(9)	Medical devices	242	0.012	0.111	0	1	-0.155	-0.166	-0.129	-0.105	-0.106	0.041	-0.026	-0.013	1									
(10)	Printing	242	0.004	0.064	0	1	0.002	0.012	-0.012	-0.033	0.008	0.021	-0.015	-0.007	-0.007	1								
(11)	Electronic devices	242	0.033	0.179	0	1	-0.005	0.029	-0.059	0.112	0.028	0.107	-0.042	-0.021	-0.021	-0.012	1							
(12)	Telecom devices	242	0.012	0.111	0	1	0.039	-0.080	0.020	0.106	0.103	0.036	-0.026	-0.013	-0.013	-0.007	-0.021	1						
(13)	Telecom	242	0.012	0.111	0	1	0.039	0.027	0.074	0.060	-0.123	0.147	-0.026	-0.013	-0.013	-0.007	-0.021	-0.013	1					
(14)	Software	242	0.083	0.276	0	1	0.115	0.141	0.247**	-0.299**	-0.336**	0.247**	-0.069	-0.034	-0.034	-0.019	-0.056	-0.034	-0.034	1				
(15)	Cost leadership	241	0.000	1.533	-4.489	3.113	0.059	0.068	0.088	0.204	0.145	-0.048	-0.001	-0.080	-0.053	-0.008	-0.016	-0.008	0.048	-0.178	1			
(16)	Differentiation	241	0.000	1.581	-5.339	3.516	0.286**	0.223	0.197	0.247**	0.030	0.296**	0.073	0.087	0.013	-0.037	0.090	0.088	0.006	0.001	0.318**	1		
(17)	Breadth of open innovation	230	7.822	2.721	0	11	0.137	0.089	0.032	0.382**	0.143	0.219	0.037	0.075	-0.021	0.029	0.161	0.078	0.036	-0.116	0.081	0.279**	1	
(18)	Depth of open innovation	242	1.107	1.309	0	7	0.083	0.043	0.152	0.182	0.088	0.142	-0.033	-0.009	-0.038	-0.055	0.073	0.134	-0.009	0.044	0.117	0.275**	0.310**	1

**p<0.05

Table 2. Results

	Innovation performance									
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10
Constant	-0.427	-0.264	-0.208	-0.439	-0.372	-0.354	-0.120	-0.141	-0.299	-0.376
	(1.281)	(1.291)	(1.228)	(1.309)	(1.284)	(1.322)	(1.284)	(1.269)	(1.231)	(1.271)
Control variables										
Firm size	0.101*	0.102*	0.054	0.078	0.095	0.071	0.087	0.044	0.057	0.035
	(0.060)	(0.062)	(0.059)	(0.065)	(0.061)	(0.067)	(0.062)	(0.064)	(0.059)	(0.065)
Firm age	-0.049	-0.071	-0.030	-0.098	-0.058	-0.109	-0.083	-0.083	-0.019	-0.039
	(0.181)	(0.182)	(0.173)	(0.183)	(0.181)	(0.185)	(0.181)	(0.177)	(0.173)	(0.179)
Market dynamism	0.030	0.030	-0.049	-0.011	0.023	-0.008	0.018	-0.083	-0.036	-0.080
	(0.072)	(0.072)	(0.072)	(0.076)	(0.073)	(0.076)	(0.073)	(0.076)	(0.073)	(0.076)
Chemical	0.219	0.221	0.087	0.240	0.235	0.246	0.225	0.111	0.082	0.076
	(0.451)	(0.452)	(0.433)	(0.453)	(0.452)	(0.454)	(0.449)	(0.437)	(0.433)	(0.432)
Pharmaceutical	-0.234	-0.163	-0.505	0.578	-0.213	0.798	-0.322	0.053	-0.471	-0.005
	(0.841)	(0.848)	(0.807)	(1.033)	(0.842)	(1.051)	(0.846)	(1.004)	(0.808)	(1.024)
Medical devices	-1.794**	-1.766**	-1.887**	-1.797**	-1.782**	-1.744**	-1.775**	-1.880**	-1.856**	-1.835**
	(0.846)	(0.848)	(0.810)	(0.849)	(0.847)	(0.852)	(0.843)	(0.817)	(0.811)	(0.808)
Printing	0.183	0.196	0.397	0.113	0.243	0.125	0.267	0.366	0.441	0.389
	(1.442)	(1.444)	(1.381)	(1.447)	(1.445)	(1.449)	(1.436)	(1.394)	(1.383)	(1.378)
Electronic devices	-0.115	-0.106	-0.226	-0.200	-0.131	-0.184	-0.098	-0.288	-0.227	-0.245
	(0.526)	(0.528)	(0.504)	(0.531)	(0.527)	(0.533)	(0.524)	(0.511)	(0.504)	(0.507)
Telecom devices	0.396	0.414	0.152	0.365	0.326	0.414	0.297	0.128	0.262	0.200
	(0.844)	(0.846)	(0.810)	(0.847)	(0.850)	(0.850)	(0.846)	(0.818)	(0.817)	(0.817)
Telecom	0.367	0.316	0.526	0.383	0.385	0.326	0.440	0.535	0.541	0.660
	(0.857)	(0.860)	(0.822)	(0.860)	(0.858)	(0.863)	(0.856)	(0.829)	(0.822)	(0.822)
Software	0.713*	0.749*	0.714**	0.939**	0.692*	0.973**	0.694*	0.938**	0.692*	0.822**
	(0.378)	(0.381)	(0.362)	(0.402)	(0.379)	(0.405)	(0.380)	(0.388)	(0.363)	(0.390)
Independent variables										
Cost leadership		0.054				0.054	0.051			-0.028
		(0.064)				(0.066)	(0.064)			(0.068)
Differentiation			0.266***					0.259***	0.255***	0.267***
			(0.062)					(0.064)	(0.063)	(0.069)
External search breadth				0.069*		0.073*		0.050		0.050
				(0.040)		(0.041)		(0.040)		(0.040)
External search depth					0.057		0.078		0.023	0.038
					(0.074)		(0.076)		(0.074)	(0.078)
Cost leadership × external search breadth						0.024				0.058**
						(0.021)				(0.027)
Cost leadership × external search depth							-0.115**			-0.148**
							(0.053)			(0.060)
Differentiation × external search breadth								0.007		-0.011
								(0.021)		(0.027)
Differentiation × external search depth									-0.067	-0.041
									(0.047)	(0.052)
Observations	238	237	237	226	238	225	237	225	237	224
R-squared	0.055	0.060	0.130	0.078	0.058	0.087	0.081	0.146	0.138	0.192
Adjusted R-squared	0.009	0.010	0.083	0.026	0.008	0.026	0.023	0.089	0.083	0.117
VIF (Max)	1.388	1.406	1.388	1.415	1.394	1.475	1.411	1.476	1.397	1.890
VIF (Average)	1.123	1.127	1.142	1.141	1.126	1.144	1.131	1.167	1.154	1.313

Standard errors in parentheses. * p<0.10 ** p<0.05 *** p<0.01

Table 2. Results (continued)

	NPD speed									
	Model 11	Model 12	Model 13	Model 14	Model 15	Model 16	Model 17	Model 18	Model 19	Model 20
Constant	0.171	0.423	0.337	0.244	0.183	0.407	0.448	0.576	0.267	0.372
	(1.560)	(1.569)	(1.538)	(1.591)	(1.565)	(1.588)	(1.577)	(1.582)	(1.547)	(1.598)
Control variables										
Firm size	0.049	0.046	0.007	0.046	0.047	0.025	0.044	0.011	0.012	0.003
	(0.073)	(0.075)	(0.073)	(0.078)	(0.074)	(0.080)	(0.076)	(0.079)	(0.074)	(0.081)
Firm age	-0.071	-0.103	-0.051	-0.121	-0.073	-0.134	-0.104	-0.122	-0.040	-0.081
	(0.219)	(0.221)	(0.216)	(0.221)	(0.220)	(0.222)	(0.222)	(0.221)	(0.217)	(0.224)
Market dynamism	0.233***	0.233***	0.167*	0.214**	0.231***	0.221**	0.232***	0.151	0.176*	0.170*
	(0.088)	(0.088)	(0.090)	(0.092)	(0.089)	(0.091)	(0.089)	(0.094)	(0.091)	(0.095)
Chemical	0.218	0.223	0.109	0.261	0.222	0.279	0.220	0.160	0.094	0.140
	(0.550)	(0.550)	(0.543)	(0.551)	(0.552)	(0.547)	(0.553)	(0.545)	(0.546)	(0.545)
Pharmaceutical	0.028	0.153	-0.195	0.977	0.033	1.477	0.106	0.493	-0.199	0.884
	(1.027)	(1.033)	(1.014)	(1.256)	(1.030)	(1.266)	(1.041)	(1.254)	(1.019)	(1.291)
Medical devices	-2.712***	-2.664**	-2.791***	-2.682**	-2.710***	-2.562**	-2.669**	-2.754***	-2.787***	-2.649**
	(1.033)	(1.034)	(1.018)	(1.033)	(1.036)	(1.026)	(1.038)	(1.020)	(1.022)	(1.020)
Printing	0.281	0.302	0.454	0.285	0.296	0.315	0.305	0.522	0.440	0.446
	(1.760)	(1.760)	(1.734)	(1.760)	(1.766)	(1.746)	(1.769)	(1.740)	(1.742)	(1.739)
Electronic devices	0.053	0.073	-0.037	0.029	0.049	0.080	0.079	-0.055	-0.029	0.037
	(0.642)	(0.643)	(0.633)	(0.646)	(0.644)	(0.642)	(0.646)	(0.639)	(0.635)	(0.640)
Telecom devices	-1.410	-1.375	-1.610	-1.399	-1.427	-1.279	-1.388	-1.610	-1.521	-1.407
	(1.030)	(1.031)	(1.017)	(1.031)	(1.039)	(1.024)	(1.042)	(1.021)	(1.030)	(1.031)
Telecom	-0.080	-0.160	0.056	-0.072	-0.076	-0.183	-0.132	0.067	0.055	0.032
	(1.047)	(1.048)	(1.032)	(1.047)	(1.049)	(1.040)	(1.054)	(1.035)	(1.036)	(1.037)
Software	0.614	0.676	0.613	0.985**	0.608	1.067**	0.667	1.009**	0.617	0.990**
	(0.461)	(0.464)	(0.454)	(0.489)	(0.463)	(0.488)	(0.468)	(0.485)	(0.457)	(0.492)
Independent variables										
Cost leadership		0.094				0.127	0.094			0.072
		(0.077)				(0.080)	(0.078)			(0.085)
Differentiation			0.219***					0.217***	0.220***	0.198**
			(0.077)					(0.080)	(0.080)	(0.087)
External search breadth				0.036		0.043		0.025		0.029
				(0.048)		(0.048)		(0.049)		(0.050)
External search depth					0.014		0.006		-0.026	-0.025
					(0.090)		(0.093)		(0.093)	(0.098)
Cost leadership × external search breadth						0.050**				0.071**
						(0.025)				(0.032)
Cost leadership × external search depth							-0.031			-0.097
							(0.065)			(0.076)
Differentiation × external search breadth								0.020		-0.007
								(0.026)		(0.032)
Differentiation × external search depth									-0.030	-0.018
									(0.059)	(0.066)
Observations	240	239	239	228	240	227	239	227	239	226
R-squared	0.089	0.097	0.122	0.110	0.089	0.136	0.098	0.141	0.124	0.170
Adjusted R-squared	0.045	0.049	0.075	0.060	0.041	0.078	0.041	0.085	0.069	0.093
VIF (Max)	1.380	1.397	1.380	1.412	1.385	1.468	1.400	1.474	1.390	1.777
VIF (Average)	1.121	1.126	1.141	1.139	1.125	1.142	1.130	1.170	1.154	1.305

Standard errors in parentheses. * p<0.10 ** p<0.05 *** p<0.01

Table 2. Results (continued)

	Profitability									
	Model 21	Model 22	Model 23	Model 24	Model 25	Model 26	Model 27	Model 28	Model 29	Model 30
Constant	0.387	0.625	0.568	0.057	0.564	0.323	0.847	0.277	0.619	0.604
	(1.455)	(1.454)	(1.428)	(1.499)	(1.443)	(1.505)	(1.435)	(1.482)	(1.426)	(1.494)
Control variables										
Firm size	-0.024	-0.051	-0.068	-0.036	-0.048	-0.053	-0.083	-0.067	-0.078	-0.099
	(0.068)	(0.069)	(0.068)	(0.074)	(0.068)	(0.076)	(0.069)	(0.074)	(0.068)	(0.076)
Firm age	-0.046	-0.055	-0.027	-0.046	-0.076	-0.060	-0.081	-0.021	-0.044	-0.042
	(0.204)	(0.205)	(0.200)	(0.209)	(0.203)	(0.210)	(0.202)	(0.207)	(0.200)	(0.210)
Market dynamism	0.086	0.086	0.017	0.042	0.063	0.047	0.060	-0.022	0.014	-0.022
	(0.082)	(0.082)	(0.084)	(0.087)	(0.082)	(0.086)	(0.081)	(0.088)	(0.084)	(0.089)
Chemical	0.598	0.622	0.487	0.614	0.650	0.629	0.661	0.499	0.535	0.570
	(0.514)	(0.510)	(0.504)	(0.519)	(0.509)	(0.518)	(0.503)	(0.511)	(0.503)	(0.509)
Pharmaceutical	0.268	0.515	0.155	-1.339	0.245	-1.016	0.149	-1.751	0.218	-2.391
	(1.169)	(1.166)	(1.146)	(1.667)	(1.158)	(1.693)	(1.162)	(1.650)	(1.146)	(1.735)
Medical devices	-1.890*	-1.802*	-1.971**	-1.845*	-1.852*	-1.785*	-1.793*	-1.918**	-1.914**	-1.838*
	(0.964)	(0.958)	(0.945)	(0.973)	(0.955)	(0.972)	(0.944)	(0.955)	(0.942)	(0.952)
Printing	-0.231	-0.204	-0.046	-0.264	-0.026	-0.239	0.004	-0.049	0.113	0.142
	(1.642)	(1.631)	(1.610)	(1.658)	(1.628)	(1.653)	(1.610)	(1.630)	(1.606)	(1.623)
Electronic devices	-0.434	-0.363	-0.525	-0.484	-0.492	-0.427	-0.400	-0.549	-0.561	-0.485
	(0.599)	(0.596)	(0.587)	(0.608)	(0.593)	(0.608)	(0.588)	(0.598)	(0.585)	(0.597)
Telecom devices	0.465	0.551	0.259	0.429	0.222	0.486	0.259	0.233	0.158	0.045
	(0.961)	(0.956)	(0.944)	(0.971)	(0.957)	(0.970)	(0.948)	(0.956)	(0.949)	(0.963)
Telecom	1.073	1.008	1.221	1.141	1.137	1.075	1.186	1.284	1.258	1.404
	(0.976)	(0.971)	(0.958)	(0.986)	(0.967)	(0.985)	(0.959)	(0.969)	(0.955)	(0.967)
Software	1.329***	1.443***	1.331***	1.551***	1.253***	1.651***	1.323***	1.535***	1.259***	1.462***
	(0.430)	(0.430)	(0.422)	(0.460)	(0.427)	(0.462)	(0.426)	(0.454)	(0.422)	(0.459)
Independent variables										
Cost leadership		0.161**				0.141*	0.144**			0.071
		(0.072)				(0.076)	(0.071)			(0.080)
Differentiation			0.230***					0.234***	0.196***	0.179**
			(0.072)					(0.075)	(0.074)	(0.081)
External search breadth				0.051		0.044		0.030		0.010
				(0.046)		(0.046)		(0.047)		(0.047)
External search depth					0.196**		0.214**		0.164*	0.206**
					(0.083)		(0.085)		(0.086)	(0.092)
Cost leadership × external search breadth						-0.013				0.010
						(0.024)				(0.031)
Cost leadership × external search depth							-0.115*			-0.144**
							(0.060)			(0.072)
Differentiation × external search breadth								-0.002		-0.002
								(0.025)		(0.032)
Differentiation × external search depth									-0.039	0.010
									(0.055)	(0.063)
Observations	238	237	237	226	238	225	237	225	237	224
R-squared	0.098	0.118	0.137	0.106	0.120	0.123	0.151	0.146	0.151	0.182
Adjusted R-squared	0.054	0.071	0.091	0.056	0.073	0.065	0.097	0.089	0.098	0.106
VIF (Max)	1.373	1.390	1.374	1.411	1.379	1.470	1.394	1.473	1.383	1.904
VIF (Average)	1.120	1.124	1.140	1.139	1.124	1.143	1.131	1.166	1.152	1.323

Standard errors in parentheses. * p<0.10 ** p<0.05 *** p<0.01

Appendix A. Cost leadership measurement scale

Please specify to what extent the following statements fit the strategy in your company:	
Item	Literature source
Offering products/services at low prices/prices lower than competition	Zott & Amit (2008)
Minimizing product-related expenditures, in particular through process innovations	
Emphasizing economies of scale and scope with products and services	
Low-cost strategy	

Appendix B. Differentiation measurement scale

Please specify to what extent the following statements fit the strategy in your company	
Item	Literature source
Importance and use of product-related patents	Zott & Amit (2008)
Importance of new product development, innovation and R&D activity	
Emphasis on growth by acquiring or merging with R&D/technology-intensive firms	
Branding and advertising as part of firm's marketing strategy/approach	
Differentiation strategy	

Appendix C. Innovation performance measurement scale

Please indicate your level of agreement with the following statements about your organization?	
Item	Literature source
The overall performance of our new product development program has met our objectives.	Dyer and Song (1997) Ferreras-Méndez et al. (2015)
From an overall profitability standpoint, our new product development program has been successful.	Song et al. (2006)
Compared with our major competitors, our overall new product development program is far more successful.	

Appendix D. NPD speed measurement scale

Please specify to what extent the following statements describe the speed of the R&D process in your company	
Item	Literature source
Coming up with novel ideas	Zhu et al. (2019)
Solving problems	Zott & Amit (2008)
Adopting new processes	
Developing new products	
Launching new products	

Appendix E. Firm performance measurement scale

Please indicate your firm's performance compared to that of your competitors with regard to the following items	
Item	Literature source
Customer loyaly	Ferreras-Méndez et al. (2015)
Sales growth	Jaworski & Kohli (1993)
Profitability	Reinartz et al. (2004)
Return on investment	

Appendix F. Market dynamism measurement scale

Please specify to what extent the following statements fit the market dynamism in your company:	
Item	Literature source
The technology in our markets is changing rapidly	Ferreras-Méndez et al. (2015)
In our market customer preferences change relatively fast	Jansen et al. (2005)
New customers tend to have product-related needs that are different from those of existing customers	Jaworski & Kohli (1993)

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Business expectations, performance feedback, and advertising intensity in public (non-manufacturing) Japanese firms

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Business expectations, performance feedback, and advertising intensity in public (non-manufacturing) Japanese firms

Abstract. We ask how positive expectations in the external environment can change relationships between shortfalls in organizational performance and subsequent firm search behaviors, in the form of advertising investments. Research on managerial responses to poor performance relative to performance aspirations offers that performance shortfalls lead managers to pursue problemistic search, which entails a search for solutions to performance shortfalls. However, in smaller firms, and firms in financial distress, managers may perceive existential threats to their organizations, resulting in threat rigidity, or a decrease in problemistic search. We posit that positive expectations about the business environment in the near future will enhance the intensity of externally-oriented problemistic search in the form of advertising investments, and reduce the threat rigidity response in smaller or financially distressed firms. Results in the context of public non-manufacturing firms from 1986 through 2019 in Japan lend support for these ideas.

Key Words: Performance feedback; Behavioral theory; Threat rigidity theory; Advertising intensity; Business sentiment

Business expectations, performance feedback, and advertising intensity in public (non-manufacturing) Japanese firms

"…our decisions to do something positive, the full consequences of which will be drawn out over many days to come, can only be taken as the result of animal spirits" -Keynes (1936: 161-162)

Introduction

Research has contributed greatly to our understanding of responses to performance shortfalls, but has not fully accounted for the potential role of external expectations about future business conditions in influencing the expectations and decisions of managers. Yet, as implied by Keynes' (1936) observation, managers can make decisions based upon confidence in expectations (i.e., "animal spirits") about the future, and there is evidence that latent confidence in the environment can affect managers (Duveen, 2000; Joffe, 2003; Moscovici, 2001). The objective of this study is to better understand how these expectations about the business environment in the near future can affect responses to performance feedback. These expectations include expectations among managers and practitioners in the environment about how (un)favorable business will be in the near future, and throughout this article we will use the terms positive/negative '*expectations*' and '*sentiments*' interchangeably.

According to the behavioral view, managers respond to shortfalls between actual performance and performance aspirations by searching for solutions that can improve performance, a process known as "problemistic search" (Cyert &March, 1963; Greve, 2003a). Problemistic search can involve a less cognitively intense process, where incremental changes are made to existing activities as potential solutions (Ahuja & Katila, 2004; Cyert & March, 1963; March, 1991; Tyler & Caner, 2016), or a more cognitively intense process of identifying

and evaluating potential solutions prior to initiating any changes or activities (Csaszar & Levinthal, 2016; Gavetti & Levinthal, 2000). The general expectation is for a positive direct relationship between shortfalls in organizational performance and problemistic search (Cyert & March, 1963; Greve, 2003b), yet empirical evidence on this direct effect has been mixed (Posen et al., 2018). One explanation for mixed results on direct relationships between performance shortfalls and problemistic search comes from research noting that firm size and financial health may moderate the relationship (Chen & Miller, 2007; Greve, 2010; Shimizu, 2007). In smaller firms, or financially distressed firms, shortfalls between actual performance and performance aspirations may lead to existential anxiety, causing managers to become less inclined toward search activities, as they try to conserve resources and limit risk (Alessandri & Pattit, 2014; Audia & Greve, 2006; Greve, 2010; Chen & Miller, 2007), a response known as "threat rigidity" (Shimizu, 2007; Staw, Sandelands, & Dutton, 1981).

We posit that managers may internalize positive expectations about the business environment in the near future, and this should positively moderate relationships between performance shortfalls and search. These positive expectations may also reduce negative moderating effects of small firm size and financial stress on relationships between performance shortfalls and search. Exploring the role of business sentiments in responses to performance feedback should be especially relevant for externally-oriented search, such as search through advertising activities. Hence, we focus on the empirical context of changes to advertising intensity, a form of externally-oriented search, in 2,010 public Japanese firms in non-manufacturing industries, during the period from 1986 through 2019. Japanese firms offer an especially salient context for this study, because the national culture that Japanese managers are embedded in may be especially attentive towards the future (Chen, 2013; Hostede & Minkov,

2010; House et al., 2004). Our results in this context suggest that relationships between performance shortfalls and advertising investments are enhanced or weakened by positive sentiments about the business environment in the near future, depending upon firm size and proximity to bankruptcy.

Theory and Hypotheses

Responses to performance shortfalls

Decisions within firms are often made by multiple decision makers, or coalitions of decision makers, who can have competing agendas and interests (Cyert & March, 1963). In the current study, we use the term '*managers*' to refer to decision makers within firms. These managers bargain and satisfice to reach targets that are acceptable, and performance targets that managers agree upon take the form of simple threshold-type goals, framed as performance aspirations (Cyert & March, 1963; Greve, 2003a; Lu & Wong, 2019). There is not a single rule for the formation of performance aspirations (Posen et al., 2018), and research has focused upon either social or historical comparisons of financial performance as bases of aspirations (e.g., Audia & Greve, 2006; Bromiley, 1991; Greve, 1998/2003b; Kacperczyk, Beckman, & Moliterno, 2015; Miller & Chen, 2004; Wiseman & Bromiley, 1996).

For socially derived aspirations, managers use peer organizations as reference groups (Massini, Lewin, & Greve, 2005; Xu & Zeng, 2020), and the grouping parameters used are likely to be context specific (Greve, 1998/2003a). The second basis of aspirations in the literature is derived from managers' own firms' historical performance (Posen et al., 2018). In this case, aspirations are formed using the firm's own performance in a previous period, or over multiple previous periods, as a gauge of how well it should do in subsequent periods (e.g., Kuusela, Keil,

& Maula, 2017; Lim & McCann, 2013; Mezias, Chen, & Murphy, 2002; Tyler & Caner, 2016). Resulting aspirations offer simple threshold levels of performance that managers in a firm want to achieve. If the firm matches or exceeds performance aspirations, then performance is satisfactory (Bromiley, Miller, & Rau, 2001; Greve, 2003a; Lu & Wong, 2019; March & Shapira, 1987). In light of the two bases of aspirations that figure prominently in the literature, we take the view that adoption of either historical or social aspirations is dependent upon context. Additionally, we note the potential for an additive model that has managers attending to both historical and social aspirations combined into a single aspiration level with more or less attention given to either basis of aspiration formation depending upon context (Cyert & March, 1963; Greve, 2003a; Parker, Krause, & Covin, 2017).

If actual performance falls short of aspirations, managers will perceive a problem, which triggers a search for solutions that can improve performance (Bolton, 1993; Cyert & March, 1963; Greve, 2003a). Managers may pursue multiple aspirations simultaneously, meaning that this triggering mechanism should be dependent upon the level of attention being paid to actual performance relative to the specific aspiration that was not met (Blettner et al., 2015; Greve, 2008; Ocasio, 2011; Ref & Shapira, 2017; Vissa, Greve, & Chen, 2010). It is also possible that psychological factors can lead managers to retrospectively revise aspirations in an attempt at self-enhancement (Jordan & Audia, 2012), and inconsistent or complex feedback can make the link between comparisons and triggered responses less clear (Baum et al., 2005; Bromliley & Harris, 2014; Joseph & Gaba, 2015).

When managers' attention is directed towards an aspiration that is not met, and they perceive a problem, they engage in problemistic search (Cyert & March, 1963; March, 1994; Posen et al., 2018). Research has offered that problemistic search often begins locally, as firms

search for solutions to the problem – the performance shortfall – that are proximate to activities and knowledge already familiar to the firm (Cyert & March, 1963; Jung & Lee, 2016; Katila & Ahuja, 2002; Rosenkopf & Nerkar, 2001). This local nature of search is clearest when solutions are partially implemented and then evaluated as an ongoing effort to improve or calibrate existing activities (Gavetti & Levinthal, 2000; Levitt & March, 1988), or so called "online" search (Posen et al., 2018). Alternatively, search can involve an exploration and evaluation of solutions that would not entail adjustments or changes to existing activities (Wang & Lou, 2020), but would instead involve a higher level forward-looking cognitive representation of possible new solutions and their linked consequences (Gavetti & Levinthal, 2000), or so called "offline" search (Posen et al., 2018). Offline search may consider solutions that are eliminated or not implemented, making considered but unimplemented solutions unobservable from the outside. Some research has bypassed this issue of observability by focusing on search *intensity* (Posen et al., 2018), as in the cases of research that looks at problemistic search in the form of changes to R&D intensity (Choi, Rhee, & Kim, 2019; Greve, 2003b; Tyler & Caner, 2016). The current study follows this tradition, and makes the necessary assumption that problemistic search –both online and offline– is reflected in the intensity of expenditures on search activities. Additionally, problemistic search, at different levels of intensity, can occur at both internal or external interfaces. For example, R&D intensity often entails an internal technology search (Choi, Rhee, & Kim, 2019), while intensity of external market search has been measured using marketing expenses relative to revenues (Vissa, Greve, & Chen, 2010; Wang & Lou, 2020). We focus on external market search in the form of advertising intensity.

Empirical research has identified a contradictory relationship between performance shortfalls and search activities (Chen & Miller, 2007; Iyer & Miller, 2008; March & Shapira,

1987; Shimizu, 2007). Specifically, at extremely poor levels of performance relative to aspirations, managers may perceive an existential threat to their organizations, shifting their response imperative away from finding solutions to survival (Greve, 2010; Staw, Sandelands, & Dutton, 1981). One factor that may moderate relationships between performance shortfalls and problemistic search is firm size. In smaller resource-constrained firms, managers may perceive a need to conserve resources and avoid risks that could result in organizational mortality in the absence of a cushion to absorb losses (Audia & Greve, 2006). This resistance to change in the face of poor performance for smaller firms is consistent with the predictions of Threat Rigidity Theory (Staw, Sandelands, & Dutton, 1981). Alternatively, large firms with excess resources are less likely to perceive an existential threat when experiencing performance shortfalls. In these large firms, performance shortfalls relative to aspirations are less likely to trigger a focus on conserving resources and risk avoidance (Audia & Greve, 2006). Instead, managers may not perceive an existential threat to their organization, but may perceive a threat to their positions and managerial legitimacy. As a result, managers in larger firms may perceive performance improvements and success as being priorities when faced with performance shortfalls (Kahneman & Tversky, 1979). This simultaneous focus of managers at large organizations on making up for performance shortfalls and justifying prior decisions, can lead them to a preference for escalating commitments to pre-existing activities (Greve, 2010; Staw, 1981). Additionally, larger firms may be fertile ground for these types for decisions to escalate commitments to familiar activities, because they are more likely to be bureaucratic and inertial (Greve, 2010; Hannan & Freeman, 1977), leading to greater barriers to a change in course.

The second factor that can moderate responses to poor performance is the proximity of a firm to bankruptcy. Again, the threat of bankruptcy may lead to anxiety and stress resulting in

rigidity (Alessandri & Pattit, 2014; Chen & Miller, 2007; Miller & Chen, 2004), as managers perceive an existential threat to their firms as a result of performance shortfalls, and try to ensure their firm's survival through conservation of limited resources (Greve, 2010; Staw, Sandelands, & Dutton, 1981). This response is bolstered by the observation that poorly performing firms find it more difficult to survive if they continue to invest in innovative actives (Latham & Braun, 2009). Managers are aware of their responsibility to preserve their firms viability (March & Shapira, 1987), and may respond to organizational decline by avoiding new initiatives (D'Aveni, 1989) and cutting back on costs (Bromiley & Washburn, 2011; Schendel, Patton, & Riggs, 1976; Starbuck & Hedberg, 1977). Alternatively, managers in distressed firms under threat of bankruptcy are motivated to explore and find solutions to poor performance, but may not have access to the necessary resources for these changes (Iyer & Miller, 2008; Kuusela, Keil, & Maula, 2017). In either case, when firms are distressed, managers may become more conservative in their decisions (Chen & Miller, 2007; Ketchen & Palmer, 1999). This discussion suggests a positive relationship between performance shortfalls and problemistic search, that has some mixed empirical support, and can be moderated my firm size and proximity to bankruptcy in two predictable ways: firm size having a positive moderating effect and closer proximity to bankruptcy having a negative moderating effect.

Business expectations and responses to performance feedback

Managers' expectations of the near future may be partially rooted in, and/or amplified by, manifest group/environmental expectations (Olsen, 2011; Renn et al., 1992). In the case of sentiments about risk, including risks in the near future, Joffe (2003) notes that researchers often explore purely i*ntrapersonal* factors such as heuristics and biases related to risk perceptions (e.g.,

Tversky & Kahneman, 1974). This focus on *intrapersonal* factors is also illustrated in the earlier discussion of threat rigidity responses, which draws upon cognitive psychology as a discipline that is "concerned with internal processes" (Kahneman, Slovic, & Tversky, 1982: xii). However, for approximately 60 years, a less dominant stream of research has explored the potential for external social representations to influence the internal perceptions of individuals (Duveen, 2000; Joffe, 2003; Moscovici, 2001). This research argues that representations of risks/opportunities in the environment circulate between people and groups of people, resulting in fairly consistent sentiments that individuals internalize (Joffee, 2003). This role for external/social factors is illustrated by the effects that media coverage and public opinion can have on individual sentiments (Pollock & Rindova, 2003; Renn et al., 1992; Xie et al., 2020). Beyond focusing on risk, social representations of latent opportunity in the business environment may also be internalized at the individual level, offering explanations for some "herding behaviors" where observations of others' expectations and behaviors is internalized —even if these expectations are imperfectly rationalized— and drives individual expectations and behaviors (Baddeley, 2010). This idea is illustrated by the 1990's dot-com bubble, when collective enthusiasm created a sort of feedback loop that enhanced the confidence of individuals, resulting in "irrational exuberance" (Greenspan, 1996). However, social representations do not always result in irrational expectations (and behaviors) for individuals, as illustrated in the idea that sometimes "wisdom of crowds" results in beneficial sentiments that can feed into decision-making (Da & Huang, 2020). Additionally, Keynes' (1936) observation that individuals seem to rely upon something like "animal spirits" guided by emotions when making decisions about investing, has been re-imagined and specified more recently to highlight a role for latent *confidence* among the collective participants in a market (Akerlof & Shiller, 2009). While this metaphor of 'animal

spirits' has mostly been used to explain random events within economies (Farmer, 2010), the idea that external sentiments may be reflected in individuals can also be applied to the ebb-and-flow of the business cylce absent extrordanairy events. Overall, these disparate literature streams highlight the potential for external sentiments to at least partially influence individual expectations.

Importantly, sentiments about the business environment in the near future are forward looking. Problemistic search often draws upon past experiences and activities (Gavetti & Levinthal, 2000; Knudsen & Levinthal, 2007). This backward looking emphasis of problemistic search is consistent with characterization of humans as prediction machines (Clark, 2013) or anticipatory systems (Rosen, 2012), where expectations are interrelated with feedback based upon both *experiences* and perception (Bar, 2007; de Lange, Heilbron, & Kok, 2018). In support of this backward looking empahsis, research by Lant and Shapira (2008) found that while economists feed expectations on the future into their thinking and actions, actual managers tend to distinguish between factors perceived as controllable versus uncontrollable, leading them to not focus on expectations about an uncontrollable future environment when thinking about goals and actions (Lant & Shapira, 2008). On the other hand, search can also entail identifying and evaluating various search options without making real-time changes to organizational activities (Gavetti & Levinthal, 2000; Knudsen & Levinthal, 2007; Posen et al., 2018), meaning that search can involve imagining possible future outcomes.

Gavetti and Levinthal (2000) note that managers may engage in forward-looking search processes that entail cognition of action-outcome linkages, and Csaszar and Levinthal (2016), highlight the use of mental representations as a part of search processes. Additionally, expecations about the future (and future outcomes) are identified in research on cognition (Baird,

Smallwood, & Schooler, 2011; Klayman & Schoemaker, 1993), and future-oriented thinking can occur at a higher levels of reasoning (de Lange, Heilbron, & Kok, 2018; Klein, Robertson, & Delton, 2010). At a higher level of reasoning, imagining possible future scenarios is a type of projected eposodic imagining or cognitive simulation (Atance & O'Neill, 2001; D'Argembeau & Mathy, 2011), and these imagined possible futures rely upon "much of the same neural machinery" as eposodic memory (Schacter, Addis, & Buckner, 2008). Expectations about the future influence perceptions (MacLeod, Byrne, & Valentine, 1996), pondering the future is an important element of cognition (Corno, Molinari, & Baños, 2017), and people project themselves into future points in time as a means to pre-experience anticipated futures (Atance & O'Neill, 2001). This type of future-projected thinking has also been linked to planning in order to satisfy individual aspirations (Gollwitzer & Crosby, 2008).

These insights suggest that managers are likely to harbor expectations that are consistent with external sentiments about the future state of the business environment, and these sentiments may feed into decisions regardless of whether or not they are perceived as being controllable. In other words, problemistic search is likely to involve eposodic imagining and cognitive simulation that accounts for expected future conditions. Scholars have long argued that individuals use forward-projected thiking to simultaneously consider how likely actions are to lead to desired performance outcomes, and how likely those performance outcomes are to lead to attractive rewards (Chng et al., 2015; Vroom, 1964). This future projected thinking may include some expectations on the nature of the environment, in addition to any expectations based upon internal experiences. For example, in the context of sales and marketing activities directed at customers in the external environment, expected outcomes may be based upon how likely

managers think customers will be willing to purchase products or services given what an expected future environment will entail.

We posit that, in general, managers experiencing performance shortfalls will be more likely to engage in externally-oriented problemistic search when there are positive expectations about the business environment because they will perceive performance gains from externally-oriented problemistic search as being more likely. That is to say, positive expectations about the future business environment should positively moderate relationships between shortfalls in organizational performance relative to aspirations and externally-oriented problemistic search. Alternatively, when actual performance meets or exceeds aspirations, managers should perceive less value in additional gains, making positive expectations about the future business environment less compelling. With this lower expected utility for further performance gain, the potential for favorable outcomes from problemistic search should have less bearing on decisions. These ideas lead to our first hypothesis.

> ***Hypothesis 1.*** *Relationships between performance below aspiration levels and externally-oriented problemistic search intensity are positively moderated by positive expectations about the business environment* .

As noted above, firm size and proximity to bankruptcy are factors that may moderate direct relationships between performance shortfalls and problemistic search. In smaller resource-constrained firms, or firms that are in danger of bankruptcy, shortfalls between aspirational performance and actual performance may lead to existential anxieties and rigidity as managers try to avoid risks in the absence of resources to pursue changes (Iyer & Miller, 2008; Kuusela, Keil, & Maula, 2017), or in the absence of resources that can act as a cushion to insulate firms

from mortality (Alessandri & Pattit, 2014; Audia & Greve, 2006; Chen & Miller, 2007; Greve, 2010; Staw, Sandelands, & Dutton, 1981).

The value of performance improvements to these firms where managers perceive an existential threat should be greater relative to firms where managers do not perceive such threats. But the combination of limited internal assets and an uncontrollable external environment lead to rigidity. Resource constraints in small firms, or financial distress, should negatively moderate relationships between performance shortfalls and problemistic search. However, when there are positive expectations about the environment in the near future, the magnitude of the perceived existential threats to organizations posed by performance shortfalls should be less intense. In this case, positive expectations about the business environment should lead to more confidence in externally-oriented problemistic search, reducing the negative moderating effect smaller-firm size (or positive moderating effect of larger-firm size) or financial distress has on relationships between performance shortfalls and externally-oriented problemistic search. This idea is reflected in our second hypothesis.

> ***Hypothesis 2.*** *The negative moderating effect that small firm size, or financial distress, has on relationships between performance shortfalls and externally-oriented problemistic search intensity is reduced by positive expectations about the business environment.*

Methodology

Empirical context and sample

We selected non-manufacturing firms from Japan for the empirical context of this study. Japanese industries are often characterized by the presence of business groups, and managers associated with business groups may be more likely to focus on external market search in

response to performance shortfalls, as opposed to internal search (Vissa, Greve, & Chen, 2010). Data on 2,010 public firms from 17 non-manufacturing industries based upon the Nikkei medium industry classifications was collected through the *Nikkei NEEDS* database. The NEEDS database is a well-regarded source of information on Japanese companies, and has been used extensively in past empirical research (e.g., David, O'Brien, & Yoshikawa, 2008; Greve, 2003b; Lu & Beamish, 2004; Lu & Xu, 2006; Uchida, 2019). The database included 34 observation years from 1986 through 2019, offering a good deal of variance in sentiments about the business environment. Data on business sentiments was collected from the Bank of Japan's (BOJ) *Tanki Kansoku* (Tankan) survey (Kataoka, 2010; Tsuchiya, 2013). After eliminating incomplete observations, the sample included 32,256 firm-year observations.

Dependent variable

Advertising is an important element of many firms' external market-oriented operations, and past research has focused on advertising expenditures expressed in terms of the ratio of advertising expenditures to total revenues, known as "advertising intensity" (Brush, 1976; Lu & Beamish, 2004). The use of search *intensity* specifically, side steps the issue of differentiating between offline and online search (Posen et al., 2018). We use *advertising intensity* expressed as the ratio of advertising expenditures to revenues multiplied by 100 (Chang & Rhee, 2011; Lu & Beamish, 2004), and lagged by one year (*Advertising Intensity* t_{+1}) to measure external market-oriented problemistic search. Research has frequently focused upon relationships between advertising intensity and performance, treating advertising intensity as a mostly exogenous construct (e.g., Chang & Rhee, 2011; Lu & Beamish, 2004; Paton & Williams, 1999), without conceptually or empirically accounting for antecedent factors per se. To our knowledge, the closest efforts to

examine externally-oriented problemistic search via advertising intensity come from Vissa and colleagues (2010) and Wang and Lou (2020). Vissa et al. (2010) explored how business group affiliation influences a shift in attention and types of problemistic search between R&D intensity and market search intensity, which they operationalized as the sum of all advertising, marketing, and distribution expenses expressed as a percentage of sales revenue. Similarly, Wang and Lou (2020) looked specifically at unplanned marketing investments as the ratio of selling, general, and administrative expenses to sales, while controlling for the same measure in the previous time period. We limit the focus to advertising expenditures to eliminate marketing expenses that might be directed internally. Additionally, given the potential for institutionalized search via advertising or possible inertial tendencies in advertising budgets, we follow an approach similar to Wang and Lou (2020) and also included a first-order autocorrelation term using advertising intensity in the previous year.

Independent variables

To measure performance relative to aspirations, we used a spline function (Greve, 1998) to estimate separate slopes for performance above and below aspirations. We tried different methods to measure aspirational performance, including return on assets (ROA) or return on equity (ROE) weighted using different schemes as described by Greve (2003a: 128-129). However, using advertising intensity as the dependent variable, the measure of performance relative to aspirations that offered the greatest level of predictive power in our models was a firm's performance relative to its historical performance expressed in terms of revenues. Hence, we used a firm's revenue growth in a focal observation year over the previous year to measure performance relative to aspirations, and we estimated separate slopes for performance above and

below. The coding procedure for the spline function we used can be described using the following "if, then" statements.

Positive revenue growth:

$$\text{If } (\frac{Revenue_{t0}}{Revenue_{t-1}} - 1) > 0, \text{ then } (\frac{Revenue_{t0}}{Revenue_{t-1}} - 1)\times 100, \text{ otherwise } 0.$$

Negative revenue growth:

$$\text{If } (\frac{Revenue_{t0}}{Revenue_{t-1}} - 1) < 0, \text{ then } |(\frac{Revenue_{t0}}{Revenue_{t-1}} - 1)\times 100|, \text{ otherwise } 0.$$

Next, as discussed above, firm size and proximity to bankruptcy are both factors that can determine whether managers respond to performance feedback with rigidity or problemistic search. To measure firm size, we used the logarithm of the total number of employees of a focal firm in an observation year (Audia & Greve, 2006; Greve, 2003b). To measure a firm's proximity to bankruptcy, we used Altman's (2013) Z score (Chen & Miller, 2007) for non-manufacturing firms in developed nations, which is calculated using the following formula.

$$\text{Altman's Z} = (6.65 \times x_1) + (3.26 \times x_2) + (6.72 \times x_3) + (1.05 \times x_4)$$

Where x_1 is the ratio of current assets minus current liabilities over total assets, x_2 is the ratio of retained earnings over total assets, x_3 is the ratio of earnings before interest and taxes over total assets, and x_4 is the ratio of a firm's book value of equity over total liabilities. Scores less than 1.1 indicate that a firm is distressed and at risk of bankruptcy, while scores between 1.1 and 2.6 indicate that a firm is in a gray zone, and scores above 2.6 indicate that a firm is not distressed and has a low probability of bankruptcy. Given that these ranges correspond to categorical states of risk for bankruptcy, we created a dummy variable (*Distressed*) to indicate whether a focal firm had a Z score below 1.1 and was at risk of bankruptcy in an observation year. As a matter of interest, we also included a dummy variable to indicate that a firm's Z score was above 2.6 (*Safe zone*), indicating that the firm was not at risk of bankruptcy.

Finally, to measure expectations about the business environment in the near future, we used the yearly averages of the forecast *Business Sentiment Diffusion Index* (forecast DI) for large non-manufacturing firms, from the BOJ's *Tankan* survey (Kataoka, 2010; Tsuchiya, 2013), which askes managers to assess their expectations about the business environment in the near future. Respondents can indicate that they have a 'favorable,' 'not so favorable,' or 'unfavorable' view of the business environment in the near future. The forecast DI is calculated by taking the percentage of respondents who responded that they have a favorable view, and subtracting the percentage of respondents who responded that they have an unfavorable view. If the forecast DI is positive, it indicates that respondents overall held a positive view of the business environment in the near future, while a negative DI indicates an overall negative view. Positive and negative views of the future are conceptually distinct, so we estimated separate slopes for each using a spline function (Greve, 1998), and the coding scheme can be described using the following "if, then" statements .

Positive expectations:

If, the yearly average forecast DI for large non-manufacturing firms >0, then the yearly average of BOJ business sentiment DI for large non-manufacturing firms was coded, otherwise 0.

Negative expectations:

If, the yearly average forecast DI for large non-manufacturing firms <0, then the absolute value of the yearly average of BOJ business sentiment DI for large non-manufacturing firms was coded, otherwise 0.

Control variables

It is possible that industry size has an effect on advertising expenditures (Brush, 1976), so we controlled for *aggregate industry revenue* as the logarithm of all revenues reported by firms in

the same medium Nikkei industry classification as a focal firm in a focal observation year. We also recognized that overall business sentiments are different from levels of certainty, so we controlled for certainty using the *error in business sentiment* as a proxy (Bachmann, Elstner, & Sims, 20013). When the BOJ collects data on business sentiments for the near future, it also collects data and calculates a diffusion index on business sentiments about the present business environment. We took the absolute values of differences between sentiments about future periods and the sentiments for those same periods when managers in large non-manufacturing firms were re-surveyed about the present, and averaged these differences for each focal observation year. Larger values for this control variable indicate that future sentiments were less certain.

In addition, it is possible that international diversification could change managerial perceptions of risk, or change managerial attention to business conditions to focus on specific foreign markets. Hence, we controlled for international diversification (*Foreign revenue*), using the ratio of foreign sales to total sales multiplied by 100. Next, managers in firms with business group affiliation may focus more attention on the external market than unaffiliated firms in the sample (Vissa, Greve, & Chen, 2010). To control for this possibility, we included the count of reported consolidated subsidiaries for a firm (*Consolidated subsidiaries*), the count of reported unconsolidated subsidiaries (*Unconsolidated subsidiaries*), and the count of reported affiliated companies (*Affiliated companies*). If no subsidiaries or affiliated companies were reported, these control variables took the value of 0.

When firms have abundant resources, managers may feel insulated from unexpected environmental changes and failed activities, resulting in slack search (Cyert & March, 1963). To account for this issue, we included control variables for three types of organizational slack. First,

we controlled for *absorbed slack*, using the ratio of selling, general, and administrative expenses (SGA) minus sales promotion, selling, and advertising expenses, over revenues. Our operational definition of absorbed slack departs from past research (e.g., Greve, 2003b; Iyer & Miller, 2008) by subtracting sales promotion, selling, and advertising expenses from overall SGA expenses because the dependent variable of interest in this analysis involves external market-oriented search via advertising expenditures. To control for *unabsorbed slack*, we used the ratio of cash and marketable securities over current liabilities (Greve, 2003b). And finally, to control for *potential slack*, we used the ratio of debt to equity (Bromiley, 1991; Greve, 2003b). Higher values for our measures of absorbed and unabsorbed slack indicate greater levels of slack, while higher values for our measure of potential slack indicate lower levels of slack.

Analysis

Table 1 presents a correlation matrix, and descriptive statistics for our variables. None of the correlations are at levels high enough to raise concerns about multicollinearity. In addition, although recent research has argued that multicollinearity does not introduce bias in econometric models (Lindner, Puck, & Verbeke, 2020), we calculated variance inflation factors (VIFs) using pooled ordinary least squares versions of our models as a matter of convention, and none of the resulting VIFs exceeded commonly used thresholds (O'Brien, 2007). Next, significant Hausman (1978) tests led us to use fixed-effects models to test our hypotheses. And finally, we ran unreported ordinary least squares versions of our models with dummy variables for both firm and Nikkei medium industry, and the results did not differ in any meaningful way from the reported fixed (firm) effects models we use to test hypotheses.

(Insert table 1 about here)

Results

Table 2 presents ten fixed-effects models using advertising intensity as the outcome of interest. Across all ten models, the auto-correlation term for advertising intensity was significant ($p<0.001$) and positively associated with advertising intensity lagged by one year. This result highlights a role for institutionalized, or inertial, externally-oriented search via advertising expenditures. However, none of the estimates for aggregate industry revenue resulted in significant estimates. Additionally, foreign revenues did not result in significant estimates in any of the models, suggesting that in the current empirical context, international market diversification of a firm's revenue sources is not associated with advertising intensity. Similarly, none of the estimates for reported consolidated subsidiaries, reported unconsolidated subsidiaries, or affiliated companies resulted in significant estimates, suggesting that in this context affiliation with a group of companies is not associated with variance in advertising intensity.

However, results across all of the models lend support for the idea that firms with greater levels of absorbed and unabsorbed slack are more likely to engage in externally-oriented slack search in the form of advertising investments. Specifically, estimates for absorbed slack were positive and significant ($p<0.001$) across all ten models, as were estimates for unabsorbed slack ($p<0.001$). Interestingly, the estimate for potential slack was also positive and significant ($p<0.05$), indicating that lower levels of potential slack were associated with externally-oriented search via advertising investments. Similarly, estimates for firm size were consistently positive and significant ($p<0.001$), suggesting that firm size is positively associated with advertising intensity. Additionally, estimates for the dummy variable indicating that a firm was in distress were negative and significant ($p<0.01$~0.001) in models 1 through 8, but not in models 9 and 10

which included three-way interactions with this variable. These results illustrate a negative direct relationship between risk of bankruptcy and advertising intensity. Alternatively, estimates for the dummy variable indicating firm was in a financial safe zone, with a low likelihood of bankruptcy, were consistently positive and significant ($p<0.001$) across all of the models in table 2. None of the estimates for positive or negative expectations were significant in any of the models, suggesting that overall expectations on their own, do not have a direct effect on advertising intensity in this context. Similarly, the control variable for error in business sentiments did not result in significant estimates.

(Insert Table 2 about here)

Estimates for positive revenue growth were negative, but only significant ($p<0.05$) in model 4 and 8. These results do not offer strong support for a consistent relationship between positive revenue growth over a firm's historical revenue growth, and advertising intensity. However, the estimates for negative revenue growth result in consistently negative and significant ($p<0.001$) estimates across all of the models. Next, model 2 includes the interaction term between negative revenue growth and positive expectations, and the resulting estimate is positive and significant ($p<0.001$). To help with interpretation, figure 1 graphs the marginal effects of this interaction comparing negative revenue growth set at 0 percent to negative revenue growth at plus 1 standard deviation above the sample mean, which equated to a 14.5 percent decrease in a firm's revenues from the previous year. Figure 1 also compares positive expectations at 0 and at plus 1 standard deviation above the sample mean. When there is no decrease in revenues, the difference in advertising intensity with no positive expectations and positive expectations at plus 1 standard deviation is trivial. However, when we examine the effects of positive expectations at a 14.5 percent decrease in revenues, two different slopes

emerge. The slope between no decrease in revenues and a 14.5 percent decrease in revenues when there are positive expectations is less steep, illustrating a positive moderating effect for positive expectations on externally-oriented problemistic search. Additionally, the marginal difference in predicted advertising intensity for firms experiencing a 1 standard deviation decrease in revenues with no positive expectations versus a plus 1 standard deviation in positive expectations in figure 1 is 0.33%, which corresponds to a difference of 423,519 USD for a firm generating the sample median revenues in 2019. Overall, the interaction term in model 2, graphed in figure 1, lends support for hypothesis 1. As a matter of interest, model 3 includes the interaction term between negative revenue growth and negative expectations, which did not result in a significant estimate.

(Insert Figure 1 about here)

Next, hypothesis 2 predicts that the negative moderating effects of small size and financial distress on relationships between performance shortfalls and externally-oriented problemistic search such as advertising expenditures will be reduced by positive expectations about the future business environment. Before testing this hypothesis, models 4 and 5 include interaction terms to test our assumption that response to performance shortfalls will be moderated by firm size or proximity to bankruptcy, and the results of these models are presented in figure 2. Model 4 includes the interaction term between firm size and negative revenue growth, and the resulting estimate is positive and significant ($p<0.001$). Part 'a' of figure 2 presents a graph of this interaction effect for firms at minus 1 standard deviation below the sample mean size versus plus 1 standard deviation above the sample mean size, when then there is no decrease in revenues versus negative revenue growth at plus 1 standard deviation above the sample mean. In part 'a' of figure 2, we can see a positive slope for larger firms, suggesting that

performance shortfalls increase advertising intensity in this context. Additionally, we can see a negative slope for smaller firms, suggesting that performance shortfalls decrease subsequent advertising intensity for these firms. Taken together, these results lend support for the idea that externally-oriented search or rigidity in response to performance shortfalls is dependent upon firm size (Greve, 2010). In model 5, we included the interaction term between a firm's status as being distressed and negative revenue growth. The resulting estimate is negative and significant ($p<0.001$), and part 'b' in figure 2 graphs this effect, once again comparing slopes between no decrease in revenues and a decrease of 1 standard deviation above the sample mean. Part 'b' of figure 2 illustrates negative slopes for both distressed and not distress firms, but the slope for distressed firms is notably steeper, illustrating a negative moderating effect of proximity to bankruptcy on advertising investments in response to performance shortfalls in this context. The marginal difference between distressed and not distressed firms in predicted advertising intensity at 1 standard deviation decrease in revenues above the sample mean is 0.80%, which corresponds to a difference of 1,026,712 USD for a firm generating the sample median revenues in 2019. This result is consistent with the notion that financially distressed firms are more likely to respond to performance shortfalls with rigidity in their advertising investments (Chen & Miller, 2007; Miller & Chen, 2004).

(Insert Figure 2 about here)

Finally, to test hypothesis 2, we ran models with three-way interaction terms in models 7 and 9, and these interactions are graphed in figure 3. In model 7, we included the three-way interaction between positive expectations, firm size, and negative revenue growth. The resulting estimate was negative and significant ($p<0.001$), and this interaction is graphed in part 'a' of figure 3 to help with interpretation. Part 'a' of figure 3 shows that for smaller firms, there is a

negative slope going from no decrease in revenue to a plus 1 standard deviation revenue decrease, while the slope for larger firms is positive. The negative slope for smaller firms when there is no positive expectation is steeper than the negative slope for smaller firms when positive expectation is 1 standard deviation above the sample mean. This result lends support for the idea that rigidity in response to performance shortfalls in smaller firms is reduced by positive expectation about the business environment in the future. The difference in marginal effects on advertising intensity for smaller firms experiencing performance shortfalls when there is no positive expectation versus positive expectation at plus 1 standard deviation is approximately 0.7%, and this result is consistent with hypothesis 2. Interestingly, part 'a' of figure 3 also graphs the positive slopes for larger firms when there is no positive expectation and when positive expectation is at 1 standard deviation above the sample mean. In this case, the positive slope for larger firms when there is no positive expectation is steeper than the positive slope when there is positive expectation. The difference in marginal effects on advertising intensity for larger firms experiencing performance shortfalls when there is no positive expectation versus positive expectation at plus 1 standard deviation is approximately 0.32%. This result suggests the positive moderating effect of large firm size (negative moderating effect of small size) on relationships is reduced by positive expectations about the future business environment. As a matter of interest, in model 8 we also included the three-way interaction between negative expectations, firm size, and negative revenue growth. The resulting estimate was not significant.

(Insert Figure 3 about here)

In model 9, we included the three-way interaction between positive expectations, a firm's status as being distressed, and negative revenue growth. The resulting estimate was positive and significant ($p<0.001$), and this interaction term is graphed in part 'b' of figure 3 to help with

interpretation. Part 'b' of figure 3 shows that the negative slope for distressed firms when there is no positive expectation is steeper than the negative slope for distressed firms when positive expectation is 1 standard deviation above the sample mean. This result lends support for the idea that the negative moderating effect of financial distress on relationships between performance shortfalls and advertising investments is reduced by positive expectations about the business environment. The difference in marginal effects on advertising intensity for distressed firms experiencing performance shortfalls when there is no positive expectation versus positive expectation at plus 1 standard deviation is approximately 1.25%, which corresponds to a difference of approximately 1,604,00 USD spent on advertising for firms generating the sample median revenues in 2019. Along with the results of model 7, the results in model 9 lend support for hypothesis 2. Additionally, part 'b' of figure 3 shows that the negative slope for firms that are not distressed is steeper when there is no positive expectation. As a matter of interest, in model 10 we included the three-way interaction between negative expectations, a firm's status as being distressed, and negative revenue growth. The resulting estimate was negative and significant ($p<0.05$), suggesting that the moderating effect of negative expectations on firms that are distressed (or not distressed) is the opposite of the moderating effect of positive expectations.

Discussion and Conclusion

Our study suggests that positive expectations about the future environment can reduce/enhance relationships between performance feedback and externally-oriented problemistic search in the form of advertising investments. Specifically, positive expectations about the future environment appear to increase the likelihood of externally-oriented problemistic search following performance shortfalls in general, and also reduces the threat rigidity response for smaller or

financially distressed firms. At a minimum, this insight identifies a key factor that can be considered during externally-oriented problemistic search in the form of advertising investments.

This research can also inform future research efforts beyond simply including expectations about the future environment as a construct at the margins of discussions of search that is externally oriented, or as a simple control variable in empirical research. Search can be "forward looking," so we believe that it is important for research to fill in gaps in our knowledge of the potential roles of the expectations about the future environment that may influence managers. As one example, in the current study we focused on expectations for the 'near' future, and empirically measuring expectations using the Tankan survey, which asks about expectations on the business environment three months into the future. Yet, there are questions about how far future-projected thinking extends during search. Tonn, Hemrick, and Conrad (2006) found that while people worry about the future, their ability to imagine a future beyond 15-20 years is diminished. So, a more accurate specification of the time range of future expectations in this process could be an important line of inquiry. Similarly, what is the role of managers' characteristics such as optimism? When future events are attached to consequences in the "real world", it is possible that managers may bend, or revise, probabilities about what the future will entail (Hey, 1984), creating subjective probabilities, or subjectivly distorted probabilities. Optimisim would entail revising probabilities upward for favorable events, and downward for unfavorable events. Pessimism, on he otherhand, would entail revising probabilities downward for favorable events, and upward for unfavorable events. This idea suggests that when business sentiment about the future is positive, managers will adjust their perceived liklihood of success upward. In addition, it is also important to highlight the possibility of unrealistic optimism, or pessimism, where egocentrism and focalism drive managers to believe that their organizations

are more likely than average to benefit from rare desirable (undesirable) events (Kruger & Burrus, 2004). In short, there is no shortage of worthwhile lines of inquiry for better understanding the role(s) of future expectations in problemistic search.

Of course, like all research, this analysis has limitations. The most obvious limitation is the specificity of our empirical context, which may limit the external generalizability of findings. We hope that future research picks up on this line of inquiry and explores it in different empirical contexts, so that we can better assess the external generalizability of results. This caveat highlights an opportunity for future research to contribute by replicate this analysis in new contexts. Replications of this research in different geographic contexts also offer potential theoretical extensions, given that national or regional culture may affect managers' attention to external context (Masuda & Nisbett, 2006), comfort with risk (Frijns et al., 2013), and orientation towards the future (Chen, 2013; Hofstede & Minkov, 2010). Overall, incorporating future expectations into the research on problemistic search offers one more promising line of focus in an already intriguing area of study.

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Table 1 Correlation matrix and descriptive statistics

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Advertising Intensity$_{t+1}$	-																
2. Aggregate industry revenue	-0.01	-															
3. Foreign revenue	-0.01	0.12	-														
4. Consolidated subsidiaries	-0.00	0.01	0.06	-													
5. Unconsolidated subsidiaries	-0.00	-0.01	0.03	0.19	-												
6. Affiliated companies	-0.00	0.01	0.03	0.38	0.43	-											
7. Absorbed slack	0.81	-0.04	-0.03	-0.01	-0.01	-0.01	-										
8. Unabsorbed slack	0.04	-0.00	0.00	-0.00	-0.00	-0.00	0.01	-									
9. Potential slack	-0.01	-0.01	0.03	0.03	0.04	0.01	-0.02	-0.01	-								
10. Firm size	-0.04	0.00	0.04	0.21	0.11	0.10	-0.05	-0.03	0.07	-							
11. Distressed	-0.00	-0.13	-0.05	0.01	0.00	0.01	0.03	-0.01	0.12	0.04	-						
12. Safe Zone	0.00	0.25	0.08	0.00	-0.03	0.00	-0.02	0.03	-0.12	-0.09	-0.44	-					
13. Positive expectations	0.01	-0.01	0.00	-0.01	-0.05	-0.02	0.00	-0.00	0.02	0.03	-0.05	0.04	-				
14. Negative expectations	-0.01	0.05	0.01	-0.00	0.08	-0.00	-0.00	0.00	0.01	0.03	0.03	-0.05	-0.52	-			
15. Error in business sentiment	-0.00	0.03	-0.00	-0.01	-0.04	-0.06	-0.00	-0.00	0.02	0.06	0.00	-0.01	0.00	0.16	-		
16. Positive revenue growth	0.02	-0.04	0.00	-0.05	-0.03	-0.03	0.00	0.00	-0.00	-0.22	-0.05	0.04	0.11	-0.09	-0.01	-	
17. Negative revenue growth	0.01	0.01	0.03	0.02	0.01	0.01	0.07	0.01	0.01	-0.15	0.08	-0.01	-0.05	0.07	-0.00	-0.23	-
Mean	1.86	7.07	1.16	7.39	0.76	0.70	0.28	1.43	3.34	2.65	0.09	0.67	10.30	5.49	4.01	10.13	3.83
Standard deviation	16.18	0.65	5.64	34.28	7.12	7.06	2.53	15.56	33.89	0.69	0.28	0.46	12.28	8.54	2.24	16.35	10.68
VIF	-	1.09	1.03	1.23	1.25	1.41	2.31	1.00	1.03	1.19	1.26	1.33	1.41	1.46	1.05	1.16	1.13

Table 2 Expectations about the future, performance shortfalls, and advertising intensity

	1	2	3	4	5	6	7	8	9	10
Aggregate industry revenue	-0.266	-0.273	-0.269	-0.209	-0.275	-0.265	-0.265	-0.231	-0.274	-0.279
	(0.213)	(0.213)	(0.213)	(0.213)	(0.213)	(0.213)	(0.213)	(0.213)	(0.213)	(0.213)
Foreign revenue	0.011	0.011	0.011	0.012†	0.011	0.011	0.013	0.012	0.011	0.011
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
Consolidated subsidiaries	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Unconsolidated subsidiaries	0.001	0.001	0.000	-0.000	0.000	0.000	-0.000	-0.000	0.000	0.001
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Affiliated companies	0.001	0.000	0.000	0.001	0.000	0.000	0.001	0.001	0.000	0.000
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Absorbed slack	2.931***	2.937***	2.931***	2.967***	2.966***	2.935***	2.966***	2.968***	2.978***	2.967***
	(0.058)	(0.058)	(0.058)	(0.058)	(0.058)	(0.058)	(0.058)	(0.058)	(0.058)	(0.058)
Unabsorbed slack	0.025***	0.025***	0.025***	0.025***	0.025***	0.025***	0.025***	0.025***	0.025***	0.025***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Potential slack	0.012*	0.011*	0.012*	0.011*	0.011*	0.012*	0.011*	0.011*	0.011*	0.011*
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Size	0.945***	0.934***	0.949***	0.541***	0.951***	0.950***	0.614***	0.505***	0.945***	0.943***
	(0.130)	(0.130)	(0.131)	(0.134)	(0.130)	(0.131)	(0.138)	(0.137)	(0.130)	(0.131)
Distressed	-0.373**	-0.356**	-0.371**	-0.379**	0.054	-0.346**	-0.359**	-0.375**	-0.010	0.200
	(0.133)	(0.133)	(0.133)	(0.132)	(0.146)	(0.134)	(0.132)	(0.132)	(0.160)	(0.171)
Safe Zone	0.393***	0.389***	0.392***	0.424***	0.364***	0.358***	0.425***	0.423***	0.367***	0.375***
	(0.091)	(0.091)	(0.091)	(0.091)	(0.091)	(0.095)	(0.091)	(0.091)	(0.091)	(0.091)
Positive expectations	0.001	-0.001	0.001	0.001	0.001	0.001	0.015	0.001	-0.001	0.001
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.010)	(0.002)	(0.002)	(0.002)
Negative expectations	-0.001	-0.000	-0.000	-0.004	-0.001	-0.001	-0.003	-0.022	-0.000	-0.000
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.015)	(0.003)	(0.003)
Error in Business sentiment	-0.006	-0.006	-0.006	-0.003	-0.005	-0.006)	-0.002	-0.003	-0.005	-0.005
	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)
Positive revenue growth	-0.003†	-0.003†	-0.003†	-0.004*	-0.003	-0.003†	-0.003†	-0.004*	-0.003	-0.003
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Negative revenue growth	-0.030***	-0.041***	-0.029***	-0.158***	-0.022***	-0.036***	-0.209***	-0.163***	-0.030***	-0.025***
	(0.003)	(0.003)	(0.003)	(0.010)	(0.003)	(0.005)	(0.012)	(0.011)	(0.004)	(0.003)
Positive expectations × Negative revenue growth		0.001***					0.005***		0.000**	
		(0.000)					(0.000)		(0.000)	
Negative expectations × Negative revenue growth			-0.000					0.000		0.000
			(0.000)					(0.001)		(0.000)
Size × Negative revenue growth				0.054***			0.073***	0.058***		
				(0.004)			(0.005)	(0.004)		
Distressed × Negative revenue growth					-0.059***				-0.073***	-0.041***
					(0.008)				(0.010)	(0.010)
Safe Zone × Negative revenue growth						0.008				
						(0.006)				
Positive expectations × Size							-0.005			
							(0.003)			
Negative expectations × Size								0.007		

								(0.005)		
Positive expect. × Size × Negative revenue growth							-0.002***			
							(0.000)			
Negative expect. × Size × Negative revenue growth								-0.000		
								(0.000)		
Positive expectations × Distressed									0.012	
									(0.008)	
Negative expectations × Distressed										-0.016
										(0.011)
Positive expectations × Distressed × Negative revenue growth									0.002***	
									(0.000)	
Negative expectations × Distressed × Negative revenue growth										-0.002*
										(0.000)
Auto correlation coefficient	2.219***	2.217***	2.219***	2.217***	2.215***	2.218***	2.215***	2.217***	2.214***	2.215***
	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
Fixed (firm) effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	32,256	32,256	32,256	32,256	32,256	32, 256	32,256	32,256	32,256	32,256
Multiple R^2	0.936	0.936	0.936	0.936	0.936	0.936	0.936	0.936	0.941	0.936
Adjusted R^2	0.931	0.931	0.931	0.932	0.932	0.931	0.932	0.932	0.932	0.931
Model F-statistic	26,013***	24,588***	24,567***	24,720***	24,609***	24,569***	21,232***	21,190***	21,119***	21,102***

† p<0.10
* p<0.05
** p<0.01
***p<0.001

Fig. 1 Moderating Effect of Positive Expectations

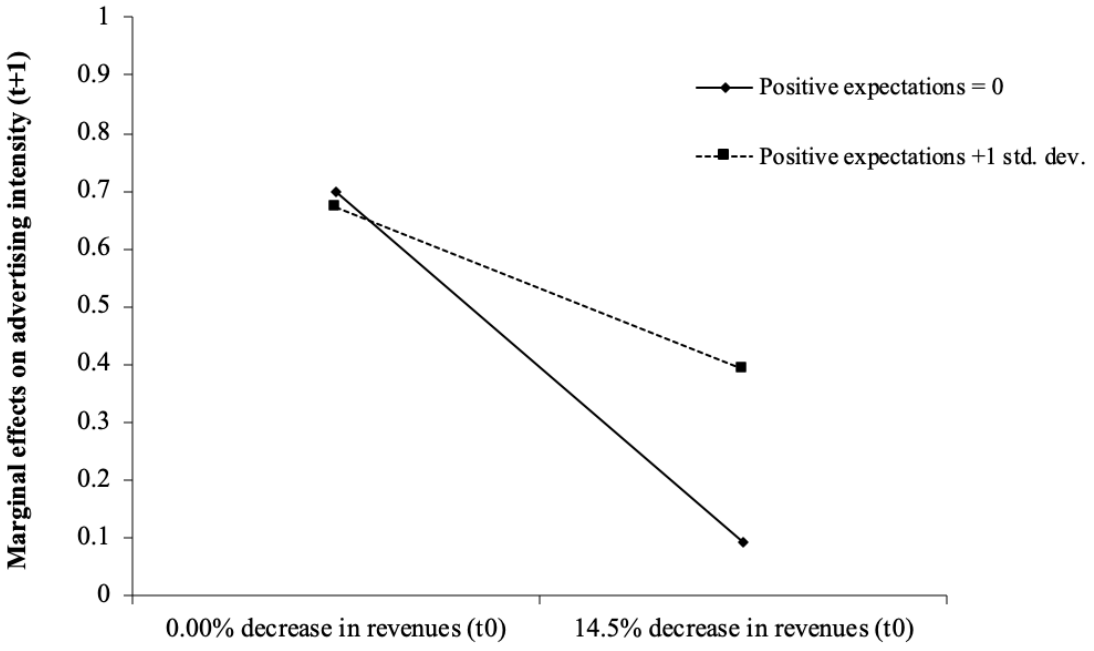
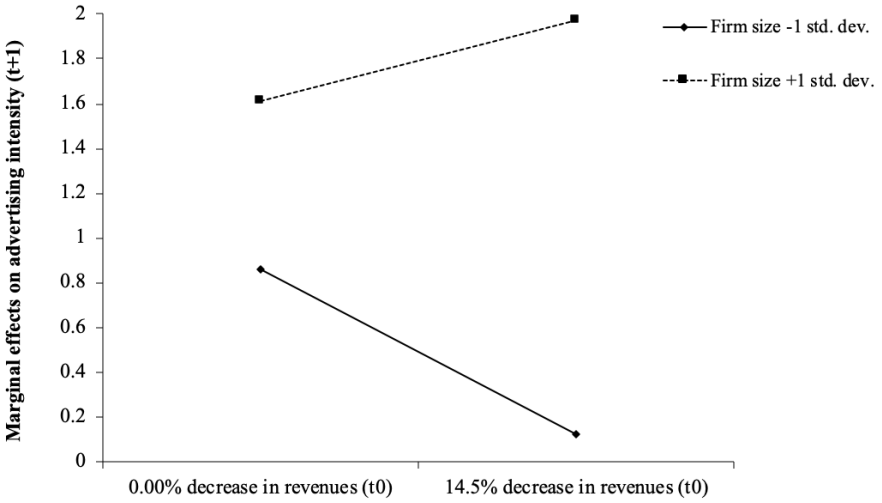


Fig. 2 Moderating effects of a) size and b) financial distress on performance-search relationships

a. Firm size as moderator



b. Financial distress as moderator

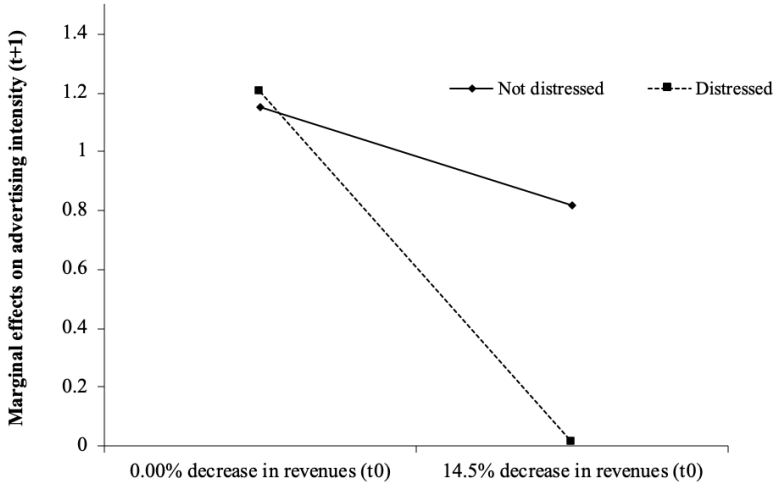
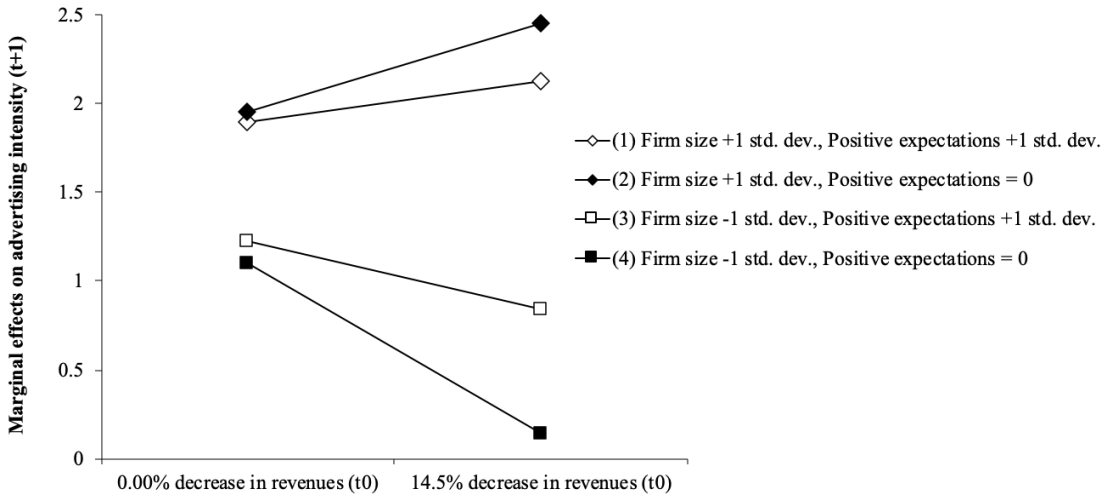
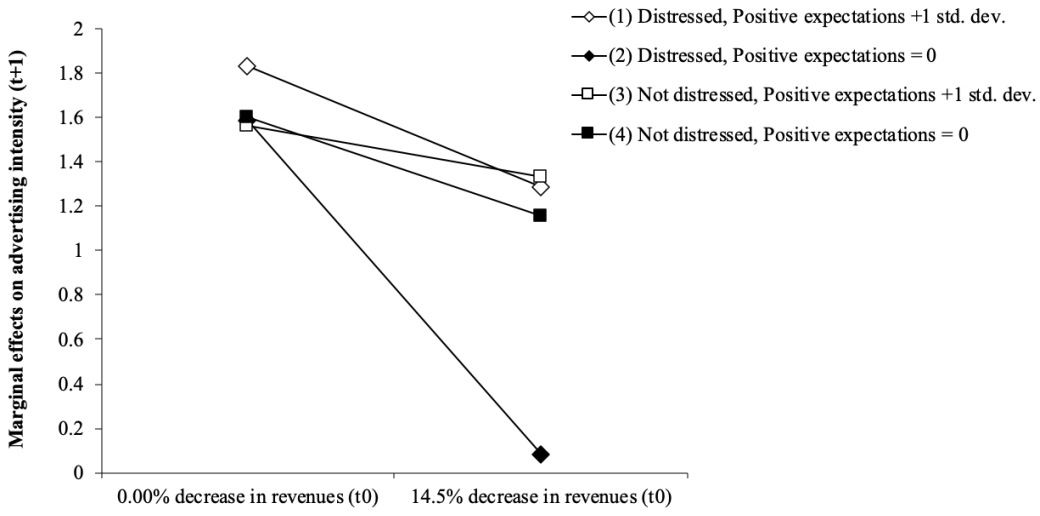


Fig. 3 Positive expectations, and the moderating effects of a) size and b) financial distress on performance-search relationships

a. Positive expectations, and firm size as a moderator



b. Positive expectations, and financial distress as a moderator



The settlement process to inter-business conflict between client and vender/seller in outsourcing:

Project-Managers' appraisals and copings of inter-business conflicts.

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Title :

The settlement process to inter-business conflict between client and vender/seller in outsourcing: Project-Managers' appraisals and copings of inter-business conflicts.

Abstract:

The purpose of this paper is to understand conflict resolution process from the client's point of view. The study analyzed the actual actions taken by the project managers for resolving conflict with vender/seller. Data were collected from 11 project managers who adopted the boundary spanning roles for resolving the inter-business conflicts. The data were analyzed via the use of the M-GTA with a series of semi-structured interviews. The results indicated that the boundary spanners tend to recognize conflict as their project risk to be shared mutually, and make modifications of their scope in ways that were acceptable for the parties.

Keywords:

Conflict-Mnagement, Project Manager, Inter-Company conflict,
Resolution Process, Boundary-spanning person, M-GTA,

1. Introduction

Various conflicts exist in the phase of establishments and implementations of the project between organizations. Differences of recognition and interpretations of contracts between organizations such a vender and buyer is considered to be the cause of conflicts.One constructive approach for dealing with conflict is integrative bargaining, in which the interests of the parties are integrated and they are guided to win-win-outcomes (Robbins, 1997). According to Brodt & Diez (1999) and Krauss & Fussell (1991), integrative bargaining involves the parties establishing a shared perspective based on an attitude of cooperation to substitute for a zero-sum approach in the process of reaching for resolution. Chae (2011) argue that the perception mechanisms of the bargainers require consideration as one factor that influences how conflicts are dealt with. Considering this, approaches to the process of integrative bargaining for dealing with conflicts between companies must identify the focus of the analysis and take into consideration the mechanisms by which the conflict is perceived.

2. Previous studies

In this section we summarize existing research concerning the intentions of individuals vis-à-vis conflict and the process of integration of interests, and identify open issues.

Beersma & De Dreu (1999) and Bell & Song (2005) relate how an other-directed orientation which emphasizes each other's needs and concerns, not just individual interests, can build trust and positive motivation. Denise, Roger, Barbara et al(2013) point out the difficulty of explicitly conveying information about needs and concerns between individuals fulfilling roles at the boundaries between companies. Hawkins & Rezazade (2012) argue for the necessity of bringing together needs and concerns by finding shared frameworks and shared concepts for bridging gaps in perception between individuals with different standpoints. Kondo et al. (2020) analyzed the integrative bargaining of companies receiving orders, and described how reframing of the conflict by the customer representative as an issue shared by the two companies resulted in other-directed motivation and processes which properly integrated the interests of all the parties. This suggests that the constructive behavior of integrative bargaining in response to intercompany conflicts is a process of the parties following a path of changing towards other-directedness, constructing a shared perspective. Kondo et al. (2020), however, focus on the selling company,

leaving open the question of what kinds of changes in perception and attitude the company on the buying side will go through as they proceed with integrative bargaining.

3. Research Question

This study focuses on the project leader, a project manager at the purchasing company, and ask what types of change in perception and behavior occur on the way to resolving intercompany conflicts that arise with the selling company.

4. Methods

In this study we define a project as a fixed term organizational activity combining technology and human resources from inside and outside the organization as appropriate to produce some ultimate outcome in a given period of time. We define the scope as the outsourcing of a task by the buyer a task to an external firm to supplement resources the buyer cannot provide itself, and the seller as the entity which accepts and carries out this task. Figure 1 shows the conceptual framework for the buyer and project in this study.

Conflicts arising between the organizations are recognized and dealt with by “boundary spanning persons” who are the points of contact. According to Adams (1980), boundary spanning

persons (BSP) are influenced by the relationship between constituents such as organizational and role attributes, and by members of the organization and external organizations. Here we treat the project manager in the buying company as a BSP, and the BSP on the selling side as counterparty. The topic of our analysis is 11 experienced individuals from 11 organizations we selected who managed and carried out the project as BSPs, from whom we gathered data by means of semi-structured interviews. Table 1. shows the interviewees. The interviews were carried out between October 2019 and March 2020. From the data we gathered, we generated categories based on the modified grounded theory approach (M-GTA), then built the perceptions of conflict and changes in response behaviors into a process model.

5. Results

The M-GTA analysis resulted in a total of 24 concepts being generated. We then reviewed the relationships between the categories generated from the 24 concepts from the perspective of the perception, attitude, and behavior of the BSPs. The result of this review is shown in Figure. 2 as a process model.

We identified four stages in the generated process: (1) unease towards the seller; (2) acceptance of reality; (3) avoidance of risk; and (4) recognition of resolution of conflict. Below we describe the story line for each stage throughout the entire process.

1. Stage of unease towards the seller

When the seller carries out the assigned scope, the occurrence of incidents that might affect the final outcome, or requests from the counterparty to change the schedule, can result in a feeling of unease on the part of the BSPs towards the seller due to concerns that the desired outcome might not be achieved. The BSPs believe these are issues that should be dealt with by the seller, and seek results from the seller as per the requirements.

2. Stage of acceptance of reality

If each side's demands for the requested scope appear incompatible, giving rise to a perception that the seller has a different standpoint, BSPs interpret this as an obstacle between the parties. On this basis, the BSPs will deem it necessary to bring the two parties together to deal with the issues, coordinating with the seller as a partner who can supplement part of the scope of the project so that the parties agree. At the same time, in order for the buyer to accept the situation

of the seller, the BSPs consider the scope of the project from the point of view of the seller, with a frank explanation of the desired ultimate outcome to the counterparty.

3. Stage of avoiding risk

Given this kind of situation, the BSPs interpret the gap in requirements between the companies as a potential risk to the project, engendering a feeling of danger that it may lead to impediments to the final outcome. As the buyer executes the project, taking into consideration the priorities of quality and deadlines, the counterparty on the seller's side who is doing the coordination becomes conscious of trying to find reach an effective point of convergence for both companies. In revisiting the requirements, the BSPs try to understand the seller's tolerance limits, and in doing so work out a compromise plan for the seller, in an attempt to share risk with the counterparty.

4. Stage of recognition of resolution of the conflict

In the course of this process, the BSPs recognize the conflict as resolved when they perceive that the views of the desired outcome have been aligned with the seller, or a commitment to risk sharing has been made, or else that the outcome or improvements are evident.

5. Conclusion

As a result of the M-GTA analysis, we found the following kind of processes by which the BSPs dealt with conflicts that arose with the seller.

First, we found a process whereby BSPs, by reframing conflicts arising with the seller as a risk affecting the end outcome, changed the buyer's stance from self-orientation to other-directedness. Second, we found a process whereby the BSPs, in order to find a point of convergence for conflict between companies, worked with the counterparties to close the gap in perception and reality of the scope.

One factor in moving forward with rational integrative bargaining for the BSPs responsible for the final deliverables is to recognize that differences between the two parties related to understanding and carrying out the scope of the project are a project risk, and to compensate the seller as appropriate. We believe the two key points obtained from this study offer new suggestions on the way in which differing points of view between the buying and selling company can influence the process of dealing with conflicts.

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Table 1 .Overview of Interviewees

Type of Industry	Project in charge	Age	Sex
1. IT Services	Sales of Internet services	30s	Male
2. Financials	Operational systems development	50s	Male
3. Industrials	Power plant operation	40s	Male
4. Trading	Company's own building maintenance	50s	Male
5. IT Services	Operational systems development	40s	Male
6. Industrials	Website development and operation	40s	Male
7. Health Care Services	Care facility development	40s	Male
8. Leisure	Operational systems mainentenance	40s	Male
9. Media	Newspaper advertisement production	50s	Male
10. Education	Educational Content production	30s	Female
11. Biotechnology	Operational systems development	50s	Female

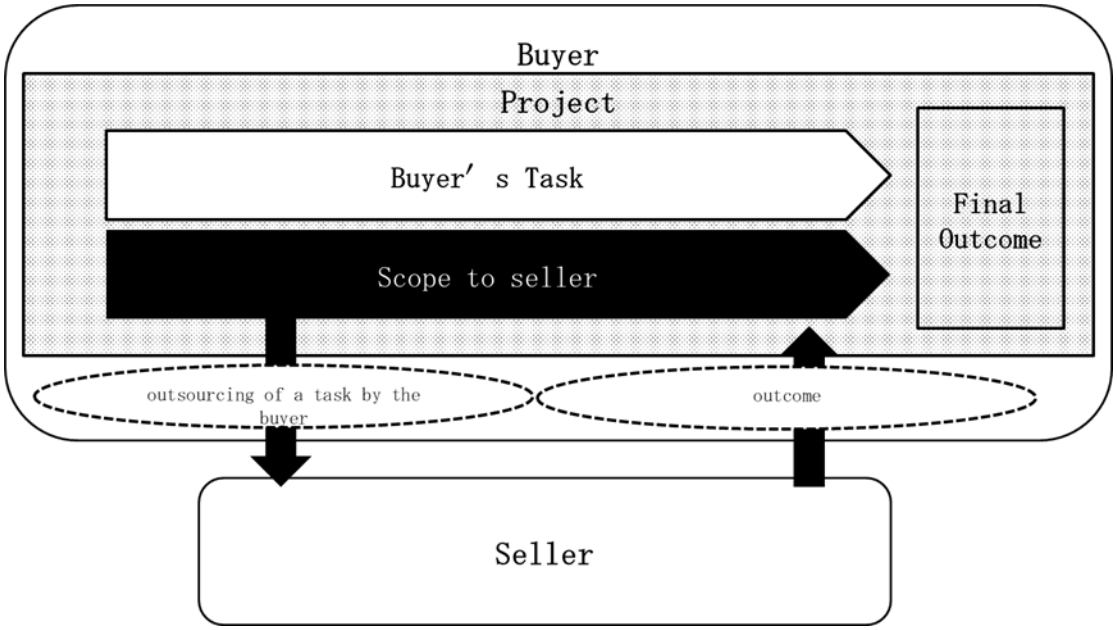
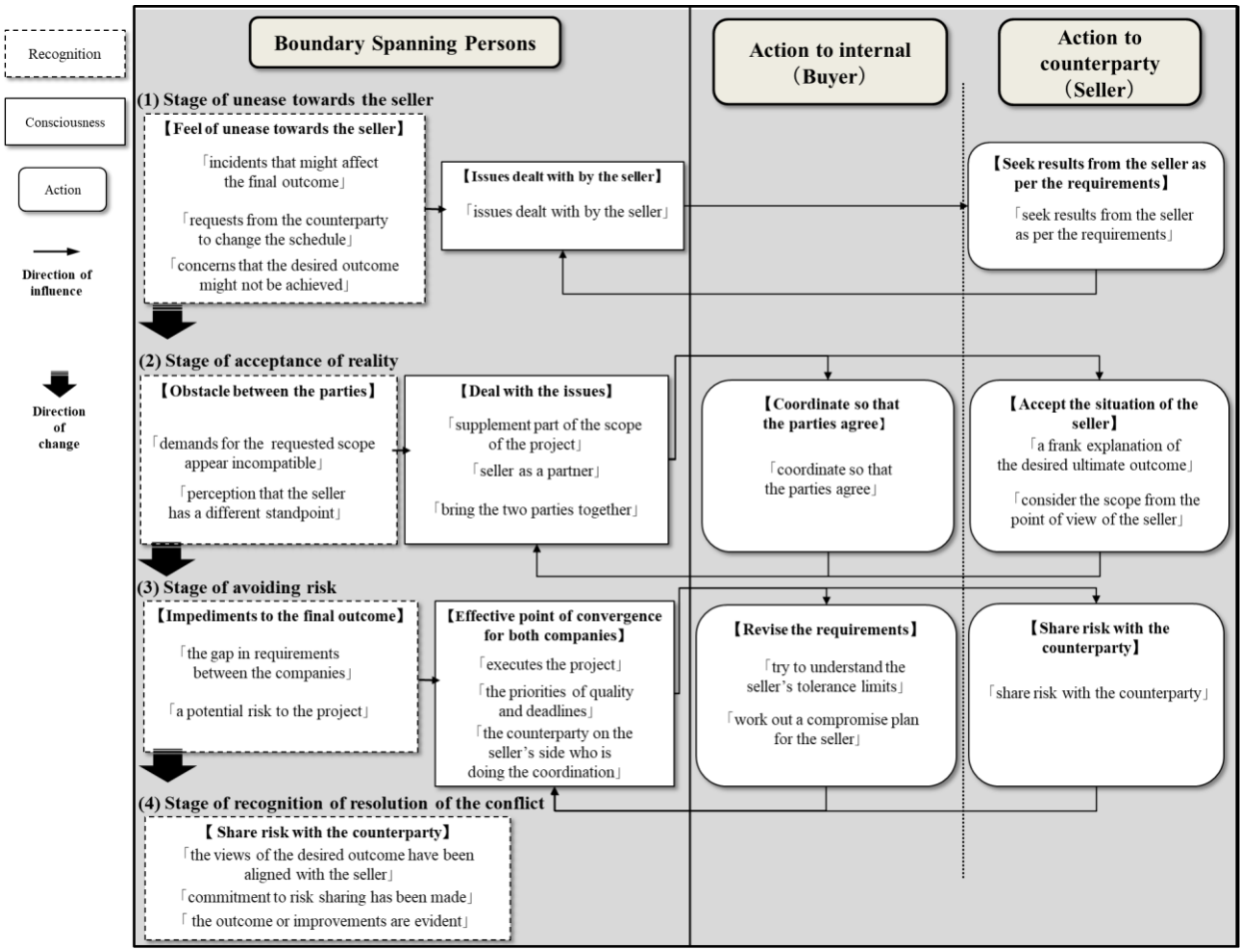


Figure 1.Conceptual Framework for the Buyer and Project in This Study



Figur 2. M-GTA Process Model

Building Competitive Advantages of Small- and Medium-sized Enterprises through Achievement of Sustainable Development Goals and Creation of Shared Values

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Building Competitive Advantages of Small- and Medium-sized Enterprises through Achievement of Sustainable Development Goals and Creation of Shared Values

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Abstract

Drawing on the perspective of sustainable development goals (SDGs) and creating shared value(CSV), I explore whether and how small- and medium-sized enterprises or SMEs create social value and economic values by meeting social needs as well as whether and how creation of social and economic values had to do with international competitive advantage for those SMEs. I performed case study research in which I researched Kaiho Sangyo Co., Ltd. The Kanazawa-based SME has evolved from an automobile dismantling to a recycling industry company and has gone so international as ship its products to 90 countries and become a leading company in that industry. I examined a process of international competitiveness where Kaiho have become a leading company in the global market of its products. Kaiho has engaged in social responsibility activities along problem with business partners and competitors from at home and abroad so that it could improve operational and managerial efficiency by creating high quality products and a less-bureaucratic organization. In addition, the SME has built and sustained an ecosystem in which products, services, and education are integrated and even has transferred it to its oversees facilities.

Keywords: Sustainable development goals, creating shared value, small- and medium-sized enterprises, ecosystem

Introduction

Environmental problems are becoming more serious, and the earth is facing sustainability problems. Since companies need to make profits as well as social responsibility, what is called “creating shared value (CSV) for business organizations and the society at large that was proposed by Porters et al. (2011) has become important in recent years (Usui, 2019). In addition, United Nations Summit in 2015 adopted sustainable development goals (SDGs) that include seven specific goals for achieving a sustainable world until the year of 2030. The Japanese government established its SDGs Promotion Headquarters in 2016 to promote SDGs[1]. SDGs as well as CSV are an opportunity for companies to grow as environmental problems have become a global top risk problem[2].Meanwhile, research on CSV and SDGs has been conducted by drawing on case study methods in which multinational corporations or enterprises (MNCs or MNEs) or in Europe and the United States are the subjects of research while small and medium-sized as sized Japanese enterprises have been under-researched.

Against the backdrop of lack of research into SDGs and CSV regarding Japanese MNCs, I would like to explore Japanese MNCs in terms of their SDGs & CSV activities and outcomes in this paper. More specifically, I will explore whether and how Japanese SMEs have solved environmental issues by taking an approach to SDGs and CSV not only at home but also overseas.

The literature reviews

Base of the pyramid(BOP,) corporate social responsibility (CSR), and millennium development goals (MDGs) as well as SDGs and CSV have taken attention from business

and non-business leaders from around the world in recent years. Those leaders have stressed the importance of achieving both corporate profitability and social responsibility at the same time(Tamaki ,2020).

Cañeque, F. C., & S. L. Hart (2015) said that BOP research has evolved into BoP1.0, BoP2.0, and BoP3.0 (Hart,S.L. 2010, London,T. & Hart, S.L., 2010, Prahalad, C.K. 2009), and that BoP3.0 is desirable for expanding corporate profits and solving social issues. (Cañeque, F. C., & S. L. Hart, 2015: prologue,Chapter2,3,4,6,9) and that " BOP3.0 is a business model in which multiple businesses and organizations work together to create a business ecosystem together with his BoP layer (Hart et al., 2015, P.17; Nomura Research Institute, 2016, p. 18). Ecosystem refers to a mechanism in which characters from multiple companies, governments, universities, research institutes, local governments, NGOs, BoPs, etc. are organically linked and evolve together to coexist and co-prosper widely[3]. Hiramoto (2017) discusses the BoP business as follows: it is evolving through various stages (1) scale up, (2) scale out, and (3) creation of a deep ecosystem. Scale-up is expansion of the existing business; scale-out is promotion of itself or the duplication of other business organizations—which leads to expansion of the entire industry; scale-deep is increased, economic and social effects by encouraging cooperation between multiple business organizations from the same industry. He stresses the importance of business expansion, duplication, and collaboration through the ecosystem.

Professor Porter and his colleagues once stressed the need for the promotion of strategic or proactive CSR but not for non-strategic or reactive CSR seen in the past or traditional CSR activities (Porter et al, 2008, p. 36). In their article published later or 2011, they conceptualized shared values and defined it as an approach of creating social value by responding to social needs while creating economic value; they went on to define CSV as inseparable from a company's expertise and competitive position and creates economic value

by creating social value by utilizing the company's unique resources and expertise. (Porter et al, 2011,p.29.). Nawa (2015) argued that CSR has a "reactive concept or impression in which employee feel obliged to comply with business activities or rules(p. 7) . Monitor Deloitte(2018) argued that CSV is "an activity that is indispensable for corporate competition and is a source of profit generation(p. 28)." Nawa (2015) suggests that monetization, participation of others, scaling, and methods for achieving sustainable growth are needed for the existential purpose of a company to carry out CSV management (p. 242).

Other CSV studies include Borzaga C. & Defourny J. (2001), Tanimoto (2006), Fujii et al. (2013), Takahashi et al. (2018), and Yokoyama (2018). In recent years, in the Monitor Deloitte edition (2018, p. 29-30), the new winning patterns of CSV global advanced companies are the appeal of "function, quality, price of products and services" and "purpose" from the cases of GE, Wal-Mart, and Unilever. It is suggested that "purpose power x order formation power x reproducibility (organizational knowledge)"; (1) The purpose power is to raise a reason to solve social issues with products and services and bundle various players under it; (2) The ability to form order advocates innovative business models and rules to realize the purpose and builds a new social order; (3) Reproducibility(organizational knowledge) is an organizational mechanism that continues to create new businesses and competitive advantages while promoting a new social image.

Although those studies are theoretically derived from studies targeting MNES mainly in European countries and the United States, they have not researched Japanese SMEs. With the introduction of SDGs, sustainability has become important in the management model (Monitor Deloitte, 2018, p. 36; Tomiyama, 2020b). Since 2011, CSV has been regarded as a competitive strategy for corporate management, and it is accelerating as CSV 2.0 due to the trend of SDGs (Monitor Deloitte, 2018, p. 36). Monitor Deloitte (2018) suggests that the "ecosystem" has become the "driver of management change" required for 2030 (pp. 40-41)[4].

Companies play a major role in promoting CSV and SDGs, and it is necessary to pay attention to the new practices of SMEs, which account for 99.7%[5] of Japanese companies, under the new environment of SDGs and CSV.

Research methodology

Analysis target companies and analysis methods

I adopted a case study (single case study) and researched Kaiho Sangyo, headquartered in Kanazawa prefecture, Japan. This is because the company is a small and medium-sized enterprise that has created social value and economic value by tackling and solving environmental problems through its main business; it also holds and sustains competitive advantage against Japanese and global peers. The company won the SDGs Business Award 2017 called "Ecosystem Award" in 2017[6] and in 2018 ,that was approved for the first time as a SME to join Business Action Request (BCtA[7]).This is an initiative led by the United Nations Development Program (UNDP) to simultaneously achieve commercial success and sustainable development. Kaiho Sangyo was also awarded the 2018 2nd Japan SDGs Awards Promotion Deputy General Manager (Minister of Foreign Affairs) Award[8].

To examine the process of building a competitive advantage for Japanese SMEs' SDGs and CSV activities and outcomes, I conducted case research; more specifically, I extensively and deeply explored purpose and effects of a Japanese SMEs over a long period of time (Yin1984).

Data collection

I collected data from documents, documentary records, interviews, and direct observations cited as sources of evidence (Yin, 1984, pp. 105-132). For documents and

document records, Data sources include magazines, books and treatises, the official website of Kaiho Sangyo, public relations materials, pamphlets, lecture materials, and so forth.

I conducted the interview using a focused interview method. I made the main informant a managing director (overseas). In addition, to secure multiple evidence reductions, we also conducted interviews with managers, Managing Director of IT department, managers and staffs of Export Division, International Affairs Department. To conduct interview survey, I visited the head office in Japan in 2016 and 2018 along with my colleagues, and then I visited the sales office in Yotsukaido City, Chiba Prefecture in 2018. In 2018, I visited a subsidiary of UAE and the counterpart of the Brazilian business, and we visited the State of Minas Gerais National Institute of Technology (CEFET-MG[9]). In 2019, I conducted a semi-structured interview with the managing director via email. The names and affiliations of the respondents are listed at Table1.

Table1 Interview List

Implementation date	Interviewed person
June 20, 2016	Mr. Norihiko Kondo, Chairman of Kaiho Sangyo Co., Ltd.
June 20, 2016	Mr.Takayuki Kondo, President of the same company
June 20, 2016	Mr. Shigehiro Sakurai, Managing Director of the same company
January 5, 2018	Mr.Katsuya Baji, Senior Managing Director of the same company
January 5, 2018	Mr. Manabu Shinomiya, Manager, Export Division, International Affairs Department
January 5, 2018	Mr. Daishi Suzuki, Manager, Overseas Business Division, Overseas Business Department
June 9, 2018	Mr. Daiki Yanagisawa, Director of KAIHO MIDDLE EAST (FZE), a local corporation in the United Arab Emirates
June 11, 2018	Daniel E. Castro, Professor, Department of Mechanical Engineering, State of Minas Gerais, Brazil (CEFET-MG)
October 11-12, 2018	Ms. Minatsu Yamaguchi, Alliance Department, Overseas Business Department, Chiba Sales Office

In addition, the direct observation method was used to learn and find a car dismantling / export process and the business process of the entire company at the head office in 2016, and the sales / customer service / shipping status of sales staff to foreign buyers at the sales office in Chiba in 2018. We visited a recycling education facility and a distance

learning facility at CEFET in Brazil, and I visited s KAIHO MIDDLE EAST (FZE), which is a subsidiary in UAE.

Fact findings

It is said that Japanese companies have a low international competitive advantage compared to their international peers (Fukuda, 2015, p. 233). However, Kaiho Sangyo has created economic values by solving social issues overseas through its main business. It buys used cars (End-of-Life Vehicles, ELVs) in Japan, dismantles them properly, and recycles them as resources. In addition, used parts are taken out for recycling and sold to 90 countries around the world. In India, Brazil and other countries, Kaiho Sangyo is trying to develop a business to properly dismantle ELV and regenerate it as a resource. How local SMEs create social and economic value by responding to social needs in overseas markets and establish a competitive advantage, SMEs win in a global environment We will explore the international competitiveness of CSV & SDGs and clarify the elements of competitive advantage of SMEs and their construction process.

Case study of Kaiho Sangyo Co., Ltd.

In this section, I will examine a process of building competitive advantage in overseas markets from a case of Kaiho Sangyo. The competitive edge of Kaiho Sangyo's automobile recycling system seems to come from KRA system, IREC, and JRS (JICA / Kaiho Sangyo 2019). The traceability of parts by the KRA system and the establishment of JRS have increased the added value of parts and increased the reliability and satisfaction of overseas customers. This led to the expansion of sales channels, solved the problem of competition with foreign brokers, and made it possible to secure suppliers of ELVs. With the spread of

these two systems, it has established itself as an industry standard in Japan and overseas, and JRS has become widely recognized around the world as a "rule" for quality evaluation of used automobile parts. Both systems are "rules" set by the company, and since these "rules" have been able to bring benefits to competitors, it is possible for competitors to become members of the ecosystem and expand the ecosystem itself.

In addition, by purchasing and producing in consideration of the inventory status by the database of the KRA system, it was possible to reduce the retention and excess inventory and brought about an increase in profits from the production and sale of used parts. With the introduction of ABC accounting, they grasped accurate costs, predicted productivity and evaluated performance. Furthermore, in "selling the KRA system to domestic and overseas automobile recycling companies and providing consulting services, Kaiho Sangyo not only sell used parts, but also provide them as an integral part of the service. In addition, Kaiho Sangyo also provide training services on recycling technology and management know-how as a business at IREC. In other words, the business is being developed by integrating product sales services and education. It was because of this "providing management improvement know-how utilizing the KRA system" that it was able to "increase the number of alliance partners in Japan and overseas."

In other words, in addition to appealing the functions, quality, and price of products and services, Kaiho Sangyo was able to reproduce the education and training facility called IREC in Brazil, and the automobile recycling business in India, Malaysia, Kenya, Indonesia, etc. It can be said that this was possible because Kaiho Sangyo was able to provide IT-based systems such as JRS, KRA system, and IREC and education and training systems together with the above projects.

The company has conducted overseas market research utilizing various systems of Japanese government agencies JETRO and JICA . Since SMEs do not have as much financial

power as large companies, overseas market research utilizing the system of government agencies was useful.

Kaiho Sangyo was able to entrust the business of JETRO and JICA in addition to the fact that improper cleanup of ELV has become a serious environmental problem in developing countries, and Japan is utilizing Japan's knowledge in this field. This is because there is a high possibility that it will help solve social issues. Furthermore, Kaiho Sangyo has the above-mentioned competitive advantage and can provide education and practical training under the purpose of "developing social problem-solving business (SDGs business) globally through the cleanup of the world". This is because it has accumulated a track record.

From the BoP 1.0 business, which exports and sells used parts to developing countries, the company exports automobile recycling mechanisms, technologies, and systems overseas, and illegally collects and sells used parts from ELVs. Kaiho Sangyo conducted technical education together with C / P and created a platform for recyclers so that competitors could participate. Kaiho Sangyo regard their competitors as partner companies and also sell used parts on our behalf. With the introduction of the JRS and KRA systems, the reuse market for used parts itself has expanded. In this way, many stakeholders were involved in building "rules" and building new industry norms. This laid the foundation for sustainable growth as an ecosystem of used automobile parts recycling alliances. This is BoP3.0.

Kaiho Sangyo's automobile recycling alliance falls under any of (1) Scale-up, (2) scale-Out, and (3) Scale-Deep. Kaiho Sangyo's business model is to "increase the number of alliance partners in Japan and overseas" because the RUM Alliance has created a manual for the dismantling method and expanded it horizontally, and "provided management improvement know-how utilizing the KRA system". By sharing and duplicating the business model of the KRA system among multiple organizations and stakeholders, the economic value of sales and profits and the social value of environmental treatment through appropriate

recycling treatment were improved. As a result, the existing business of selling used parts to the world was expanded, and multiple companies were linked through the RUM Alliance and KRA to increase the economic and social effects. This is (1) Scale-up and (2) Scale-Out. Next, the auctions made in Sharjah in the UAE and Chiba are sales "places" where buyers from all over the world can participate, and it has become possible to sell to the world of alliance participants. Realize the creation of an industry overseas that is a Japanese-style recycling business that considers the efficiency, safety, and environment of dismantling work, and provides Japanese-style automobile recycling methods, businesses, and education and training businesses in Brazil, India, Indonesia, Malaysia, Kenya, etc. It is "replicating" overseas, expanding the industry as a whole, and will continue to expand around the world. This is also (1) Scale-up and (2) Scale-Out. Furthermore, the revision work to make the KRA system to Brazilian specifications and the purchase of engine quality inspection equipment are outsourced to companies in Ishikawa Prefecture (JICA / Kaiho Sangyo 2019). In Ishikawa Prefecture, where the head office is located, various organizations and collaborations are promoted to increase economic and social effects. This is ③ Scale-Deep. In this way, by building an ecosystem, the business can be expanded and reproduced overseas, have a ripple effect on the local economy, and provide value to all stakeholders.

In addition to social and economic value, in the case of Kaiho Sangyo, the education and training business was integrated with the sale of goods and services to establish a competitive advantage. Based on the findings of Nonaka (2007, 2011, 2012) and Nawa (2016), here, the value created from education and training is regarded as "knowledge value", and "social value" and "economy" for the stakeholders of the Kaiho industry. Analyze each stakeholder about "target value" and "knowledge value".

(1) The "economic value" of used automobile parts buyers (automobile repair shops, foreign buyers, etc.) in Japan and overseas and joint venture partners of overseas sales subsidiaries is

based on the creation of a sense of value and the quality standards (JRS) of used automobile engines. It is an improvement in profits by purchasing used engines that have been inspected and rated. "Social value" is the expansion of recyclable products and visualization of quality, traceability by KRA system, guarantee of safety and security by establishing JRS, and solution of occupational safety and health problems at work sites. "Knowledge value" is the provision of knowledge about used parts and recycling technology, the provision of knowledge such as management know-how such as inventory, production, and sales management, and the provision of opportunities for vocational training, skill improvement, and environmental education.

(2) "Economic value" for ELVs suppliers (used car dealers, dealers, etc.) is an increase in profits due to expansion of sales destinations by building an ecosystem, "social value" is expansion of recyclable used parts, "knowledge value" is a provision of knowledge about JRS.

(3) "Economic value" for other companies in the same industry (automobile dismantling companies, etc.) is traceability by the KRA system, increase in added value of parts by establishing JRS, construction of ecosystem, increase in profit by expanding sales destinations. "Social value" is traceability by KRA system, security and safety assurance by establishing JRS, establishment of sustainable processes by comprehensive inventory, production and sales management and database construction, and improvement of efficiency of the entire automobile recycling industry. "Knowledge value" is traceability by the KRA system, knowledge transfer through JRS, dissemination and level improvement based on the knowledge of Japanese automobile recycling technology.

(4) The "economic value" for foreign governments and local governments is the provision of taxes and infrastructure, the fulfillment of tax obligations due to lack of licensing

mechanisms, and the increase in tax revenue due to social development. "Social value" is the solution of environmental problems such as the construction of a recycling-oriented industry. (5) The "economic value" to the Japanese government is the future increase in taxes. "Social value" is to support the establishment of a sustainable business and vein industry that secures profits by establishing a model factory in a foreign country that introduces safe and environmentally friendly Japanese automobile recycling technology and secures profits by selling materials and parts. And international contribution. "Knowledge value" is the improvement of the value of the Japanese government through the improvement of understanding of foreign governments and local governments regarding the improvement of the value of the entire automobile recycling ecosystem. Table 2 summarizes the above briefly.

From the case of Kaiho Sangyo, it became clear that the winning pattern of CSV & SDGs SMEs in the global market is not only the function, quality and price of products and services, but also the purpose power x rule forming power x reproducibility . In other words, (1) With the "purpose" of realizing "social problem-solving business (SDGs business) through the cleanup of the world" through the spread of products and services, appealing its advantages, customers, government agencies, competitors, etc. It bundled various players under the purpose, and (2) advised each country to establish rules to promote their realization and built and advocated rules that are beneficial to competitors. By building a new social order in this way, it aimed to build a competitive advantage by forming an overseas recycling market and a growth market of human resource development and training to engage in it. (3) Utilizing the support of government agencies, it embedded a fighting method integrated with the education system in the management cycle and promoted mass production of their own competitive advantage in a form that can be reproduced in each country. As a result, in addition to product functions, quality, and price, it has changed existing rules with a purpose,

discovered and expanded new markets, built a competitive advantage, and realized a business model that integrates products, services, and education.

Table 2 CSV of newsletter industry: Providing value for each stakeholder.

Stakeholder	Social value	Economic value	Knowledge value
Automobile used parts buyer, Overseas sales subsidiary joint venture partner	・Creating a sense of value ・Increasing profits	・Expansion of recyclable products and visualization of quality ・Traceability, ensuring safety and security ・Solving occupational safety and health problems	・Providing knowledge of products, technologies, and management know-how ・Vocational training, skill improvement, dissemination of technology, and provision of educational opportunities
ELVs supplier	・Increasing profits	Expansion of recyclable products	Providing knowledge about quality assurance
Other companies in the same industry (domestic and overseas)	・Increasing profits	・Traceability, ensuring safety and security ・Development of sustainable processes ・Improvement of efficiency of the entire industry	・Transmission of knowledge about traceability and quality assurance ・Dissemination of technology and improvement of level
Employees	・Securing work and income for employees	Guarantee of safety, security and health in the public and workplace	・Implementation of employee education
Foreign governments / Local governments	・Providing taxes, infrastructure, etc. ・Fulfilling tax obligations ・Expanding the possibility of increased tax revenue due to social development	・Industry construction, job creation, reduction of theft ・Regional development and sustainable use of resources and resolution of environmental problems	・Providing education to industry and government officials based on Japanese knowledge
Japanese government	・Increase in future taxes, etc.	・Support for the establishment of sustainable business and recycling-oriented industry ・International contribution	Improving the value of the Japanese government by improving the understanding of foreign governments and local governments

Source: Created by the author with reference to Nawa (2016: 43).

Discussion

By drawing on research on SDGs and CSV, I have explored what can lead SMEs, in particular Japanese SMEs, to create social value and economic value as well as to achieve corporate social responsibility. I also have examined whether or how those SMEs can then establish a competitive advantage in global and domestic markets. I will summarize research findings below.

First, top management set a clear direction to be shared among employees as organizational knowledge. Under such a management purpose, employees can get a message that their organization is trying to reduce the environmental burden, transform society into a recycling-oriented society, and continue to grow as a company, and the entire company has been working as one. Creation of social value and economic value is needed for building an ecosystem where all stakeholders assemble as I found from my case study research that ecosystem has been well established in the society. Rules like the JRS and KRA and ecosystem became a source of superiority. In the process of building a competitive advantage, in addition to function, quality, and price, Kaiho Sangyo set a cause, form rules, build an ecosystem that includes government agencies, local governments, competitors, and business partners, and reproduce it in foreign countries. By doing so, Kaiho Sangyo have built a competitive advantage. That led to the formation of a growth market and the building of a competitive advantage there.Kaiho Sangyo's case study demonstrated that the management model proposed by Monitor Deloitte can also be applied to SDGs & CSV SMEs. For SMEs that are not well funded, the use of government support has helped. In addition to Monitor Deloitte's elements of building a competitive advantage, the business model of integrating product sales, services, and education has made it possible to promote

mass production of its own competitive advantage in a reproducible manner in each country. It is a discovery.

Here are limitations. My research was not conducted based on hard evidence as I performed case study where I collected subjective data. One of my future projects would be to collect survey-based, hard evidence and perform statistical analysis to advance my research on SDGs and CSV for Japanese SMEs.

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A ‘Spatial’ Domestic Footprint and Added Cultural Distances: An Empirical Analysis of Client Portfolio Internationalization of Professional Service Firms

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A ‘Spatial’ Domestic Footprint and Added Cultural Distances: An Empirical Analysis of Client Portfolio Internationalization of Professional Service Firms

Abstract:

This study examines the impact of the characteristics of domestic business on international business. This paper answers this question by using the insights of previous research on economic geography and international business. Existing international business studies have not adequately considered the impact of a firm's domestic business on its internationalization process. Besides, a firm's 'spatial' aspects of business operations are not adequately considered in previous studies. However, those two factors are critical issues to be considered in the management of internationalization because they determine how much a firm can allocate resources and attention to a firm's international expansion. This study investigates the relationship between a spatial domestic footprint and added cultural distance by analyzing patent law firms' transactions with their clients. The results show that firms tend to avoid incorporating large added cultural distance in their client portfolio as their spatial domestic footprints become large. This study provides new insights into the intersection of economic geography and international business research by shedding light on the effect of a spatial domestic footprint in the

internationalization process.

Keywords: Spatial Domestic Footprint, Geographic Distance, Added Cultural Distance, Client portfolio, Professional Service Firms, Internationalization

1.Introduction

Even for highly internationalized firms, the home market is considered to play a significant role in many cases (Oh and Rugman, 2014). In light of this reality, Hendriks et al. (2018) describe a firm with large sales in the home market as having a large "domestic footprint." The domestic footprint is a factor that has been overlooked so far, although it is thought to have a substantial impact on a firm's internationalization process. How a domestic footprint affects international expansion has only just begun to be studied. More specifically, little research was conducted on how a domestic footprint affects entry into new foreign markets.

In recent years, international business (IB) research has begun to focus on the impact of the characteristics of domestic businesses on a firm's internationalization (Deng et al., 2020; Hendriks et al., 2018). Because existing research has focused mainly on overseas expansion under Dunning's OLI paradigm and the Uppsala model, it has not focused much on a firm's domestic operations. The home

country is still an important market for many internationalized firms, so IB research can gain new insight by considering a domestic footprint.

This study aims to examine the impact of the characteristics of domestic business on the internationalization process. Our research question is how a domestic footprint affects added cultural distance in the internationalization process. To answer this question, we refine the existing operationalization of a domestic footprint, which is the inversion scale of the foreign sales ratio, by incorporating insights from economic geography.

We develop a new operationalization that measures multidimensional spatial factors of a firm's domestic operations; We call this a 'spatial' domestic footprint. In fact, geographic distance is paid extensive attention by IB researchers, but such attentions have been mainly drawn to foreign countries, not to the home country. Our approach shifts the only point of view but follows the traditional line of prior research on the distance at which much interest has been directed.

We then use "added" cultural distance (Hutzschenreuter and Voll, 2008; Hutzschenreuter et al., 2011), a new measuring approach to the international expansion process in recent studies, to analyze the relationship between added cultural distance and a firm's spatial domestic footprint. As Hendriks et al. (2018) found that a firm adds smaller added distance into its country portfolio as its domestic footprint is large, we expect a spatial domestic footprint is also negatively associated with added cultural distance.

Our study chooses patent law firms in China as the target of the analysis. In the case of the patent prosecution services, where highly technical documents are handled, they are highly embedded in the local institutional context. Therefore, international expansion requires careful decision-making, as language and cultural distance can lead to significant dissimilarities that increase administrative costs.

This study constructed an original dataset covering the transactions between clients and patent law firms in the patent prosecution process based on patent application information. The results of the analysis of the panel data of 48 firms for six years, covering firms based in Beijing, showed that a spatial domestic footprint, measured in three geographic dimensions, was negatively associated with added cultural distance. In other words, as we expected, as a spatial domestic footprint becomes large, firms will opt for international transactions that include smaller added cultural distance.

By focusing on a spatial aspect of a domestic footprint, this paper contributed at least two points as follows. First, we open new possibilities to integrate studies in economic geography and IB research by integrating the traditional concepts with new operationalization. In other words, this paper utilizes a domestic footprint to explain a firm's internationalization process but measure it by looking at its spatial attributes. Second, looking at spatial aspects enables us to analyze a firm's domestic and international operations seamlessly. Because measuring a spatial domestic footprint is relatively easy to apply to other industrial settings, this facilitates IB scholars to exchange ideas with economic geographers.

2. Theory and Hypotheses

2.1. A Domestic Footprint and International Expansion

With exceptions the studies such as Hendriks et al. (2018), Hendriks (2020), and Ito (1997), there have been limited studies on the impact of domestic business on international expansion. IB scholars have paid little attention to a domestic footprint, although it impacts the internationalization process (Hendriks et al., 2018). A domestic footprint determines organizational resources and managers' attention allocation (Hendriks et al., 2018). Because a firm with a large domestic footprint, i.e., more dependent on domestic business, tends to prioritize domestic business, it tends to avoid adding foreignness in its internationalization process (Hendriks et al., 2018: Hendriks, 2020).

As the research on a domestic footprint has just begun, there are still rooms to refine the current measurement. Prior research measures a domestic footprint in a relatively simple way; it is operationalized as the degree of dependence on domestic business measured by the inversed ratio of the degree of internationalization (DOI). In line with the operationalization of internationalization in prior studies, a domestic footprint is also operationalized in multiple ways. For example, Sullivan (1994) and Verbekeab and Brugman (2009) summarized several measures that are often used to measure DOI; Advertising Intensity (Al), Foreign Employees over to Total Employees, Foreign Sales over to Total Sales (FSTS),

Export Sales over to Total Sales (ESTS), Foreign Profits over to Total Profit (FPTP), Foreign Assets over to Total Assets (FATA), Overseas Subsidiaries over to Total Subsidiaries (OSTS), Research and Development Intensity (RDI).

Hendriks et al. (2018) measured a domestic footprint as 1-FSTS by looking at the reverse side of the degree of dependence on domestic business following prior studies. Along with this way of operationalization, all DOI-based measurements should be utilized to capture a domestic footprint. However, given that this is a measurement issue as well as a theoretical question, this approach is not sufficient because a large domestic footprint is equivalent to the lower level of internationalization. Therefore, its effects can be easily estimated from the results of existing studies by reversing the measures.

In essence, we need to develop a new measure for a domestic footprint from which the traditional approach has overlooked spatial aspects. Recent research has paid more attention to organizations' geographical aspects (Hendriks 2020). In the next section, we try to develop a measurement to capture a domestic footprint from a spatial viewpoint by integrating insights from IB research and economic geography.

2.2. A spatial domestic footprint

Although geographic footprint as a similar concept has been discussed (e.g., Mudambi et al.,

2018; Rugman, Verbeke, and Yuan, 2011), researchers have not reached a consensus on how to operationalize it. Prior research treated a domestic footprint as it were unidimensional by defining it as the inverse DOI, although scholars in IB research pointed out that DOI should be measured by multidimensional factors. When we use an inverted indicator of DOI, the theoretical contribution is not sufficient because it measures only the performance attributes of a domestic footprint.

Instead, we take a multidimensional perspective to measure it. This paper follows the traditional view in IB studies, but it is not applied to the home country's business. The viewpoint and method are traditionally used to analyze geographic diversification in international business markets (Goerzen et al., 2013; Goerzen and Beamish, 2003). As recent studies mentioned, the essential next agenda is to consider the spatial aspects within a country to approximate the actual spatial distances that firms have to manage. (Beugelsdijk and Mudamb, 2013; Goerzen et al., 2013). Thus, integrating domestic issues into the analysis of the internationalization process is also essential.

Economic geographers have shown a strong interest in spatial factors within and between countries. Although IB researchers have also had exceptional attention to geographic scope, they have only applied their perspective to geographic extensions outside the home country. However, in recent years, IB researchers begin to pay more and more attention to firms' business in the home country when they analyze their internationalization (Hendriks et al., 2018; Hendriks, 2020).

In essence, this study measures a domestic footprint, not in terms of performance attributes of domestic business (Hendriks et al., 2018; Sullivan, 1994) but in terms of spatial dimensions. Thus, we refer to this as a 'spatial' domestic footprint. Goerzen et al.(2013) and McCann(2011) pointed out that the current understanding of the geographical attributes of multinational enterprise (MNE) behavior is not yet fully developed, although there is a growing interest in locations. This study will use the findings of economic geography and IB research to take account of a firm's location and space in the home country.

Examining it in this way does not lead to a logical leap to view domestic footprint as a spatial feature. In the tradition of IB research, a significant amount of research has been done on geographic diversification of international business (Asmussen, 2009; Goerzen and Beamish, 2003). Thorough applying the traditional IB research perspectives which directed at international expansion to capture the home country's business, we induce new insights for the internationalization process. As physical distance is the fundamental factor that defines economic activity (Dastidar and Zaheer, 2010: Håkanson and Ambos, 2010), various distance indicators are highly correlated with each other (Berry et al., 2010). Given these assumptions, looking at spatial attributes of domestic footprint allows us to analyze domestic and international business seamlessly. Therefore, our research question is how a spatial domestic footprint determines a firms' internationalization process.

2.3. A domestic footprint and added cultural distance

Organizational resource allocation becomes a management issue because of its limitation (Hendriks et al., 2018; Hendriks, 2020). Such organizational resources are considered the tangible and intangible resources from the RBV and the managers' cognitive resources from the ABV. A firm with a large domestic footprint tends to allocate more resources to its home country. Besides, a large domestic footprint requires a firm to pay more attention to domestic business. This idea has been shared among researchers from early studies of the internationalization process as Johanson and Vahlne (1977) found that internationalization begins with psychologically close countries. It is assumed that a firm's international diversification to a country with greater psychological, cultural, and other dimensions of distance requires more resources and cognitive resources.

As discussed so far, prior studies mainly explain the relationships between a domestic footprint and added cultural distance by two perspectives (Hendriks et al., 2018; Hutzschenreuter and Voll, 2008); namely, the RDT and the ABV. Because of the large regional differences in the home country (Chabowski et al., 2010, Hoskisson et al., 2013; Sun et al., 2015), firms in emerging markets have to allocate more resources and cognition to their domestic business.

First, many firms have domestic markets as their primary markets and are dependent on those resources, as existing research in international management theory has shown. According to the RDT,

organizations tend to invest in more dependent projects and businesses (Christensen and Bower, 1996). A firm with a larger domestic footprint is generally more reliant on domestic resources in that it is embedded more in the home market conditions and actors. Therefore, the larger the domestic footprint, the more resources will be prioritized for domestic projects, and thus the smaller added cultural distance for international projects.

Second, because the bounded rationality, managers need to decide a priory of allocation of their attentions. In other words, their attention is directed to developing strategies for the domestic market. In emerging economies, the differences in the environment within a country are not considered insignificant. For example, in 2018, the difference between the administrative regions with the highest and lowest GDP per capita within China is more than four times. So, extending geographic reach across provinces will increase costs even in the domestic market. When they are heavily weighted toward domestic business, they are likely to prioritize domestic business. Also, the need to use cognitive resources for such large domestic differences may cause organizations to exhaust their cognitive resources. Therefore, a firm is assumed to prefer small added cultural distance associated with internationalization.

Third, geographical proximity with the home country's clients will promote the above tendency. In other words, the frequent interactions with domestic clients require a firm to allocate more resources and attention for them. In addition, as a professional service firm coproduce service with clients, it tends

to accumulate resources in line with their domestic business since they can interact with domestic clients at a higher frequency than with overseas clients. As a result, the accumulated resources cannot be easily deployed for gaining foreign clients, and more attention is needed to interpret foreign markets. Thus, it is hard for a firm to incorporate large added cultural distance.

IB research examines the physical distance in the international expansion context. Managing costs are considered to be positively associated with geographic distance (Baaij and Slangen, 2012; Baaij et al., 2013). Previous studies have focused specifically on spatial communication costs to explain firms' transactions (Beugelsdijk et al., 2010). Precisely, in the Knowledge-Intensive Business Services (KIBS) case, as Growe (2019) points out, the additional costs arising from geographic expansion are significant because they require face-to-face interaction with customers. Therefore, firms tend to avoid large added cultural distance when they have a larger spatial domestic footprint.

Hypothesis:

A firm’s spatial domestic footprint is negatively associated with its added cultural distance.

3.Methodology

3.1. Research Context

Our research analyzes transactions between clients and patent law firms in China, namely, patent prosecution assignments. China is a suitable target for analysis because it is vast, and there are lots of regional differences (Chan et al., 2010, Shi et al., 2012). Because of China's relatively late economic reforms after becoming a member of WTO in 2001, its domestic and regional differences have been remained (Fan et al., 2007). These domestic differences require firms to allocate more recourses and attention to the home market for understanding clients' local business practices, which is embedded in each province even though the intellectual property law is enacted at the national level.

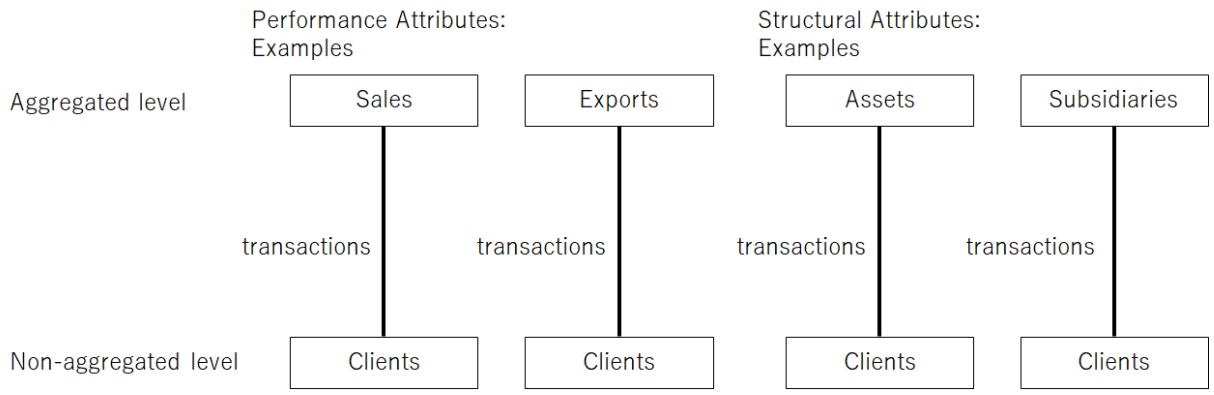
During this study's observation period, the number of domestic and foreign applications in China has been growing. Although apparently, they can enjoy business growth from both domestic and foreign clients, they need to carefully consider how to allocate resources and attention to the domestic and overseas markets to gain organizational growth in that China's institutional and law environment has a large gap from that of the developed economies. Thus, they manage to allocate limited resources and attention to clients from the home and foreign countries.

It is to be noted that the internationalization of this industry is different from MNEs in that it does not entail foreign direct investments (FDI). In other words, we cannot simply compare them with traditional MNEs' internationalization. The internationalization process of patent law firms means extending a firm's client's portfolio into foreign markets. In this sense, their extension of international

transactions can be similar to the internationalization by exports, which do not generally entail FDI (Boehe et al., 2016). Because international service transactions will be delivered as “cross-border” supply as illustrated one of four typical service modes by WTO, patent law firms do not necessarily use FDI beyond borders. Therefore, the traditional measurements of the internationalization process cannot be applied.

Due to data accessibility, the level of observation in this research is different from previous IB studies, as illustrated in Figure 1. However, this provides some advantages. Collecting data at a non-aggregated level provides new because PSFs’ internationalization process can be captured at the transaction level. Prior studies capture the level of a firm's internationalization at an aggregated level, as discussed above (Sullivan, 1994). Compared with those aggregated levels, this research can analyze the more microscopic elements of service delivery processes for clients and examine the underpinning process of internationalization, which will be aggregated such as sales, exports.

Figure 1. Observation level of firms’ internationalization



3.2. Sample and data sources

In this study, legal patent firms based in Beijing were included in our analysis. The observation period is from 2007 to 2017. As China became a member of WTO in 2001, the protection of intellectual property rights has been improved. Of the top 100 patent law firms in terms of the number of patent filings, our analysis includes 48 whose head offices are based in Beijing. Since China National Intellectual Property Administration, China's patent office, is located in Beijing, patent law firms based in Beijing have the advantage of accessing the latest information on intellectual property rights and negotiation with government officers.

The dataset for the analysis was collected by the Hypat-II patent database provided by HATSUMEI-TSUSHIN in Japan. It collects patent gazettes issued by the China National Intellectual Property Administration. Thus it covers more comprehensive patent information compared to other

databases that collect information of international applications to China via the European Patent Office (EPO). Our sample does not include HK, Macau, and Taiwan because they have their own intellectual property laws and institutions.

3.3. Dependent Variable

Added cultural distance: Our dependent variable is added cultural distance (Hutzschenreuter and Voll, 2008: Hutzschenreuter et al., 2011). This measure is developed to capture internationalization's dynamic process by measuring the closest distance in firms' current country portfolio. Following the procedure of previous research (Hutzschenreuter and Voll, 2008), we computed this variable. In the context of patent law firms, the internationalization process is open transactions to foreign clients. When a firm began to transact with a client of a different nationality that was not in the nationality of its existing client portfolio, it was considered to have added a transaction with the new country to its portfolio.

3.4. Independent Variable

Our independent variable is a spatial domestic footprint. Due to the initial stage of developing a new concept, the way of measuring it is under a challenging process. We tried opening the new possibility to invent new measurements from the viewpoint of geographic attributes. As a measurement of spatial

aspects of a domestic footprint, several possible measures of geographic scope in the home market are used. By considering a spatial domestic footprint from three different aspects, this research tries to measure multidimensional factors.

Number of provinces: This variable counts the number of provinces in which a firm has in a firm's client portfolio in year t. As prior IB research measures, this corresponds to the number of countries in which a firm operates.

Dispersion of provinces: This variable captures the degree of the spatial scope of a firm. First, we calculate the transaction share for each province of a firm's client portfolio in year t. Then, using these values, we calculate Hirschman Herfindahl Index (HHI). Finally, subtracting this value from one, this variable is obtained. As prior IB research measures, this corresponds to the dispersion of countries in which a firm operates, as discussed below. A lower value means a firm's transaction structure tends to be concentrated in a few provinces; in other words, a higher value means a firm's client portfolio tend to be dispersed across different provinces.

Average province distance: This variable is measured by the distance between capital cities of two provinces. We use the great circle distance between Beijing and each province's capital city to measure the geographic distance. This concept corresponds to the traditional geographic distance between countries in which MNEs operate (Berry et al., 2010; Slangen and Beugelsdijk, 2010).

For constructing a measurement of a spatial domestic footprint, these variables were combined using principal component analysis. Then the standardized factor scores of the first and second principal components were used as explanatory variables.

3.4. Control variables

Domestic footprint: This variable is measured by 1-FSTS in prior research (Hendriks et al., 2018). However, due to data accessibility in our context, it is calculated by the percentage of the number of international transactions over to the number of the total transaction. Although this is a proxy measurement, the transaction volume of patent law firms is assumed to be positively correlated with their financial performance (Mawdsey and Somaya, 2020). As shown in the Uppsala model, it is natural for firms to avoid large additional distance at their low internationalization level. Multinationalism and internationalization are similar but different concepts (Hutzschenreuter et al., 2014).

Number of countries: This variable is measured by the number of foreign countries of a firm's client portfolio in year t. Hendriks (2020) indicates a firm tends to enlarge its geographic scope as its country network size becomes large. We control these effects.

Dispersion of countries: This variable is measured using a Hirschman Herfindahl Index (HHI). We count the volume of the transaction for each country of a firm's client portfolio in year t. Then we

calculated the transaction share for each country to gain HHI. By subtracting this value from one, we obtain the degree dispersion of countries in a firm's client portfolio in year t. A lower value indicates a firm's transaction structure tends to be concentrated in a few countries. To take account of the home and regional orientation of a firm, as Oh and Rugman (2014) pointed out, we insert this variable.

Average cultural distance：This variable is measured by the cultural distance in foreign countries of a firm's client portfolio in year t. Using Kogut and Singh's Index (1988) and Hofstede's (1980) four culture dimensions, we computed the sum of cultural distance in a firm's client portfolio and divided it by the number of countries it incorporates into its portfolio.

Cross service ability: This variable measures the scope of technical knowledge of a firm's technology areas defined by 4-digit International Patent Classes (IPC subclass level) in year t. This is competed by the weighted-average of the patent procession of a firm. Expanding geographical and product scope simultaneously requires firms to pay additional costs (Kim, 1989). Firms can take mainly two different diversification strategies at geography and product levels (Vachani,1991).

Organizational Growth: This variable is calculated by the one-year logged growth rate in the number of patents prosecuted by a firm (Mawdsey and Somaya, 2020).

Number of Attorneys：This variable is measured as the number of attorneys of a firm in year t. Log transformed values are used in a regression to reduce the skewness.

Hiring Rate：This variable is measured as the percentage of patent attorney joins to the number of patent attorneys in year t. As professionals convey their expertise, PSFs can absorb expertise by hiring new attorneys (Broschak, 2004; Hitt et al., 2006).

Turnover Rate: This variable is measured as the percentage of patent attorney exits to the number of patent attorneys in year t. Because professionals convey their expertise, PSFs may lose expertise when attorneys leave (Broschak, 2004; Hitt et al., 2006).

Firm Age: This variable measures the elapsed years from the time when a firm was established to year t. Log transformed values are used in a regression to reduce the skewness.

Year Dummies: In addition to the above control variables, we insert year dummies.

The sample of this study is only the patent law firms located in China, so country-specific characteristics from the CAGE viewpoint are controlled.

3.4. Model specification

We employed an OLS regression with fixed effects and cluster robust standard errors. Our dependent variable, added cultural distance, is above zero, so Tobit regression is an appropriate estimation method. However, as Greene (2004) pointed out, Tobit estimator would result in an inconsistent parameter. Thus, we perform regression analysis with FE OLS first, then use Tobit regression as a robustness check

(Chondrakis and Sako, 2020).

4.Results

Tables 1 and 2 show correlation and regression results, respectively.

Table 1: Descriptive Statistics and Pairwise Correlations

Variable	Mean	S.D.	Min	Max	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1 Added Cultural Distance	0.53	0.75	0.00	5.75															
2 Number of Province	14.75	7.96	0.00	34.00	-.06														
3 Dispersion of Provinces	0.57	0.21	0.00	0.92	-.06	.38 **													
4 Average Province Distance	988.62	158.32	314.38	1620.11	-.13 *	.51 **	.23 **												
5 Spatial Domestic Footprint 1	0.00	1.32	-4.87	3.28	-.11	.85 **	.66 **	.77 **											
6 Spatial Domestic Footprint 2	0.00	0.89	-3.16	2.54	.03	-.12 *	.73 **	-.49 **	.00										
7 Domestic Footprint	0.52	0.37	0.00	1.00	.35 **	.45 **	-.01	.19 **	.29 **	-.19 **									
8 Number of Countries	21.96	14.79	0.00	62.00	-.32 **	.18 **	.10 *	.14 **	.15 **	-.01	-.60 **								
9 Dispersion of Countries	0.35	0.23	0.07	1.00	-.05	-.22 **	-.22 **	-.11 *	-.23 **	-.10 *	-.02	-.49 **							
10 Average Cultural Distance	2.38	0.37	0.15	3.30	.04	-.12 **	-.14 **	-.09	-.15 **	-.05	-.14 **	.04	-.04						
11 Cross Service Ability	0.40	0.19	0.12	4.17	.03	-.01	.09	.00	.12 **	.05	-.12 *	-.02	.06	.03					
12 Organizational Growth	0.25	0.54	-1.55	4.35	.39 **	-.05	-.02	-.02	-.04	.00	.32 **	-.32 **	.07	-.05	.08				
13 Attorneys	3.14	1.10	0.00	5.36	-.44 **	.35 **	.16 **	.18 **	.25 **	.01	-.50 **	.79 **	-.37 **	-.04	-.03	-.41 **			
14 Hiring Rate	0.24	0.18	0.00	1.00	.21 **	-.01	.07	.05	.06	.03	.30 **	-.35 **	.07	-.05	.04	.47 **	-.38 **		
15 Turnover Rate	0.14	0.13	0.00	0.75	.05	.05	-.01	-.05	.00	.01	.17 **	-.18 **	.13 **	-.01	-.03	-.03	-.28 **	.13 *	
16 Firm Age	2.63	0.64	0.00	4.11	-.32 **	.24 **	.01	.17 **	.18 **	-.13 **	-.21 **	.39 **	-.21 **	-.07	.07	-.22 **	.45 **	-.22 **	-.15 **

Significance levels: * p<0.05, ** p<0.01

Table 2: Fixed-effects ordinary least squares models

	Model 1		Model 2		Model 3		Model 4	
Spatial Domestic Footprint 1			-0.22 **	(0.09)			-0.23 *	(0.09)
Spatial Domestic Footprint 2					-0.10 +	(0.06)	-0.14 *	(0.06)
Domestic Footprint	0.14	(0.64)	0.78	(0.75)	0.06	(0.62)	0.72	(0.70)
Number of Countries	-0.03 *	(0.01)	-0.02 **	(0.01)	-0.03 *	(0.01)	-0.02 *	(0.01)
Dispersion of Countries	-0.72	(0.63)	-0.68	(0.58)	-0.82	(0.61)	-0.80	(0.55)
Average Cultural Distance	-0.01	(0.10)	0.04	(0.10)	-0.01	(0.10)	0.04	(0.10)
Cross Service Ability	1.88	(2.32)	2.27	(2.26)	1.80	(2.34)	2.18	(2.29)
Organizational Growth	0.00	(0.10)	0.02	(0.10)	0.00	(0.10)	0.02	(0.10)
Attorneys	-0.51 *	(0.22)	-0.39 +	(0.20)	-0.50 *	(0.22)	-0.37 ***	(0.20)
Hiring Rate	0.18	(0.24)	0.22	(0.23)	0.21	(0.24)	0.26	(0.23)
Turnover Rate	-0.53	(0.43)	-0.39	(0.39)	-0.51	(0.44)	-0.35	(0.39)
Firm Age	-0.79 ***	(0.29)	-0.82 ***	(0.27)	-0.76 ***	(0.31)	-0.78 ***	(0.28)
Intercept	4.36 ***	(0.76)	3.24 ***	(0.53)	4.37 ***	(0.78)	3.17 ***	(0.65)
Observations	287		287		287		287	
F value	10.96 ***		8.37 ***		8.09 ***		6.00 ***	
R^2 within	0.32		0.32		0.32		0.38	
R^2 between	0.32		0.28		0.31		0.33	
R2 overall	0.23		0.25		0.24		0.26	

Significance levels: + p<0.1, * p<0.05, ** p<0.01

Model 1 is a base model, and Model 4 is a full model. As Model 4 shows, our hypothesis was supported. Both two independent variables that measure a spatial domestic footprint are negatively associated with added cultural distance. On the opposite, we found that a domestic footprint, which measures in a similar way to the original method developed by Hendriks et al. (2018), has no significant effect. Rigorously speaking, the reason for this is not apparent, whether it is due to differences in measurement methods or differences in industries.

However, in general, a spatial domestic footprint is positively related to the volume of domestic assets, the number of attorneys, and managing costs in the home country. Therefore, it is natural for managers to allocate adequate resources and attention to the domestic businesses they rely on to a more considerable extent.

For robustness check, we conducted the following additional analysis.

First, instead of added cultural distance in the internationalization process, we use added geographic distance of the international market to check our results' robustness. Second, we change the estimation method and apply Tobit regression to analyze our dataset. Third, instead of cultural distance calculated by the average of the prior five years (Hutzschenreuter and Voll, 2008), we use added cultural distance measured in one year. Forth, we used lagged dependent variable of 2 and 3 periods following Hutzschenreuter et al. (2011). They showed basically consistent results on the effect of a 'spatial' domestic footprint. Thus, we can conclude that robustness was confirmed.

5.Discussion

A firm's domestic business influences its international expansion because it generally depends more on the home country’s markets to make profits. However, prior studies have paid less attention to the domestic business. As a result, they have not explicitly grasped a firm’s domestic footprint. This

research attempts to address this issue by capturing the attributes of business operations within the home country from a spatial viewpoint.

Few studies have captured the physical distance in domestic operations, although lots of interests have been directed at that of overseas operations in IB research. In fact, it has been measured and analyzed as geographical scope (e.g., Goerzen and Beamish, 2003). Nonetheless, the domestic business's geographic scope has rarely been considered in the context of management studies, even though it has traditionally been discussed in economic geography. Therefore, this study integrates existing research on a domestic footprint in IB research with an economic geography's viewpoint to analyze the impact of domestic spatial attributes on the internationalization process.

Our paper has at least two contributions.

First, our contribution is developing a new measurement to capture the geographic attributes of a firm's domestic business, as we refer to a spatial domestic footprint. Consistent with the results of prior studies, the domestic footprint is negatively associated with added cultural distance. Our measurements capture another aspect associated with assets and costs in the home country's business. This opens new possibilities to integrate studies in economic geography and IB research by integrating the traditional concepts with new operationalization.

Second, we can provide a new perspective to analyze a firm's domestic and international

operations seamlessly by looking at spatial aspects of domestic operations. Because geographic distance can be defined as the physical distance between two points, this perspective should be relatively easy to apply to other industries to investigate a spatial domestic footprint. By shedding light on spatial characteristics in the home country that have been previously left out of the analysis in IB studies, we can exchange insights between IB scholars and economic geographers.

Geographic scope and product diversification have been directly analyzed with organizational performance (Goerzen and Beamish, 2003). However, the factors between geographical coverage and organizational performance have not been fully identified in existing studies. This study was able to analyze those processes applying the 'additional' distances concept.

As managerial implications, there are two points.

First, it should be noted that it is challenging to simultaneously expand domestic and international business, as there are limits to the resources that can be used simultaneously (Hutzschenreuter et al.,2011). Because the expansion in domestic business is relatively easy due to smaller differences than the international market, firms tend to look over the additional costs arising from domestic market expansion. In fact, physical distance is a management issue both in domestic and overseas operations. This issue is significant in the service industry because service delivery requires frequent interaction with customers. It means that firms need to pay additional costs to overcome the communication obstacles

caused by physical distance, even in domestic business.

Second, this is because geographical expansion at home is not likely to be transferable to overseas. The know-how to manage large areas at home is considered different from that of managing large areas abroad. Even if the differences in China's domestic institutions are large, it will not be easy to apply them to manage international cultural and institutional differences. However, as Boehe et al. (2016) pointed out that a firm should choose appropriate countries to which the domestically accumulated resources can be applied to maintain a competitive advantage.

5.3. Limitations and Future Research

Our research has several limitations.

First, our paper has limitations for generalizing as with many other knowledge-intensive services (KIBS) research problems. Furthermore, even within that KIBS, it has limitations of generality in the sense that it is targeted at patent law firms. We must admit that the generalization to other KIBS is also very limited in that it covers a relatively routine type of work, such as patent prosecution. Future research needs to analyze other target areas besides patent law firms.

Second, it should be acknowledged that the operationalization of the key concept in this study is still not fully developed. In conjunction with economic geography, a ‘spatial’ domestic footprint in IB

research is an area that is still in the process of accumulating research (Asmussen and Goerzen, 2013; Baaij et al.,2013; Zaheer et al., 2012). Our operationalization is in the initial stage, so future research will need to draw on economic geography to measure the location development of domestic businesses (Bernard et al., 2014; McCann, 2011) to find out better measurements of spatial aspects of domestic business.

Third, this study has adequately addressed the problem of endogeneity. Though all firms in our sample internationally expand their client portfolio and only their service delivery internationalization process is a target, future research should find appropriate instrumental variables to cope with endogeneity.

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The Emerging Private Equity Market in Japan

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THE EMERGING PRIVATE EQUITY MARKET IN JAPAN

Preliminary Draft Prepared for AJBS 2021
Paper will be great further developed for the conference.

Abstract:

The development of a market for corporate assets in Japan has opened up a new demand for private equity financing. For large companies, the rise of China, globalization of supply chains, and impending onset of the digital disruption are requiring a strategic pivot and new focus on deep-tech specialization at the competitive frontier. As they are carving out or selling off subsidiaries, a new market for such assets has sprung open. Meanwhile, many small companies face severe succession challenges as post-WWII company founders are nearing retirement, as well as pressures to increase efficiency. The availability of such diverse, and often highly valuable, corporate assets has attracted private equity investors large and small, foreign and domestic, and deal events and sizes have grown fast. But these developments have also caused great concerns of "financialization", i.e., the introduction of short-term financial engineering schemes that may be detrimental to the target company. CEOs are often unwilling to sell their companies or crown jewels to buyers they cannot trust. This paper analyzes the current state of this industry in Japan, and shows how Japan is balancing the need of inviting these investors with defending against "vultures".

1. INTRODUCTION

The Japanese business environment has been undergoing great change. For large manufacturing companies, the rise of Korea, Taiwan and then China has fundamentally challenged their erstwhile strategy of winning through size and diversification. Japan's large conglomerates are suddenly too big, too slow and too unspecialized to stay ahead of China. Their former core business – the mass-production of high-quality consumer end products – has been copied away, and Japan's labor costs are too high to win in basic manufacturing. To win, they have to be smarter, faster and more technologically advanced. Meanwhile, large firms that have failed to make this transition or fallen into distress, as well as medium- and small sized manufacturers, logistics operators, part suppliers, and so forth are also facing a dire choice: they can either significantly upgrade their operations to become more efficient and profitable, or they can exit, for example by selling their company or their assets. Muddling through continues a strategy for many, but it is becoming unsustainable as Japanese banks are no longer able to forego profits by financing unprofitable enterprise at super-low interest rates (e.g., Schaede 2020).

Change is the new necessity, and the circles that are reached by this change pressure are widening. Yet, until recently Japan's financial system was unequipped to support such repositioning and reorganization. In the postwar years, the "main bank" would have been in charge of finding a buyer for a small subsidiary, or help close down a line of business. This was often done behind closed doors, to avoid embarrassment for what was considered the "losers", and done very slowly through attrition of employees and assets. Existing research on reorganization in Japan speaks to this important role of the main bank, and the traditional lack and changing nature of market mechanism for the sale of corporate assets (e.g., Hoshi/Kashyap 2001, Aoki/Patrick 1994). Corporate law, too, was rather restrictive on spin-outs, carve-outs, and outright exits, and before 2003, the labor law afforded employees a veto right against the spin-off of their subsidiary. They would usually be against such a sale, because wages used to be determined by company size, and working for a smaller spin-off was less attractive all around.

However, with the 2006 revision of the Companies Act, and subsequent removal of restrictions on spin- and carve-outs, mergers, acquisitions and also corporate governance to increase profit-pressures on company CEOs, the opportunities and possibilities for corporate restructuring have changed dramatically. And when Hitachi, Ltd., began its rapid-fire sales of previous core components of its business in the mid 2010a, the company single-handedly removed all excuses of why or how Japanese companies cannot reorganize (see case study below). Hitachi is one of Japan's largest, most venerable, diversified, bureaucratic companies. If this behemoth can pivot from a huge installations builder to a nimble competitor in smart cities and advanced data solutions, then any Japanese company can. What is more, the onset of the

digital transformation combined with the COVID-19 pandemic to bring further changes, push the labor market toward much more fluidity, and facilitated the overcoming of many of the previous obstacles to strategic repositioning.

This paper will show that the availability of excellent assets has attracted private equity (PE) investment to Japan, and this has in turn spawned a domestic PE industry. And, many of the domestic PE funds have found specialized areas, including very small firms, or small-size regional companies with a technology assets. Many of these firms are facing succession issues, and their ageing CEOs are looking for exit routes that leave their reputation and dignity intact. And the more deals are made that satisfy these conditions, the more CEOs are willing to consider an exit through sale.

Of interest for this paper is how this new PE industry is shaping up, and how Japanese CEOs are addressing deep-rooted concerns of exploitation and falling prey to short-term financial engineering. Just as the reputation of PE funds could not possibly fall lower in the United States, the industry is finding itself in a honeymoon in Japan. For one, Japanese companies need these funds, either to avoid bankruptcy (such as Toshiba's carve-out of the NAND business to Bain Capital) or to reorganize (such as Hitachi). But the sellers have also figured out ways to safeguard against exploitative gains. They mostly eschew arm's-length transactions and build a relationship with the buyer before they agree to a deal. Rather than auctioning off their firms or subsidiaries, they engage in a – often drawn-out – conversation about the seller's plans to create future value.

At the same time, however, the rise of PE funds introduces a new type of risk money into Japan's economy, especially for fund investors such as regional banks and other asset managers. In 1998, Japan's accounting rule changes brought a shift to mark-to-market (real time) reporting of the value of shareholdings by corporations and banks (extending to cross-shareholdings in 2000). The resulting transparency was helpful in cleaning up the banking crisis at the turn of the century. The rise of private equity is re-introducing a certain non-transparency, especially into the portfolios of smaller investors. How to deal with the new financial system risk is an open question.

Section 2 introduces the concept of "private equity". Section 3 describes the recent developments in Japan. Section 4 looks at who the largest PE players are in Japan today, and how Japanese CEOs have organized defense mechanisms against the "vulture" aspects of PE that have come to dominate such deals in the U.S.. Section 5 concludes what these changes mean for Japan's financial markets, and how they inform how current discourse on financialization.

2. BACKGROUND: THE WORKINGS OF PRIVATE EQUITY (PE)

The global private equity industry is huge, and because it is private, its size is determined based on estimates that vary by source. Most of this global industry is headquartered in the U.S.. In 2017, it was estimated that there were about 4,800 PE firms globally, with about $2.5 trillion in assets under management and more than $900 billion in dry powder (i.e., funds ready to be deployed). These data include venture capital funds (also concentrated in the U.S., led by California and Texas with roughly $66 billion each). By 2017, Japan stood at roughly 10% of the U.S. market in size.[1] After the 2008 global financial crisis, PE investments globally began to outperform stock markets, fixed income, and real estate, and hedge funds. Savings from pension, mutual and sovereign funds, plus capital from banks and insurers, began to flow into PE funds. In 2020, at a time when global interest rates are low, and the coronavirus crisis caused a collapse of asset valuations for listed companies, the PE industry initially found itself in a major boom, but it remains to be seen how the year ended.

Functions of Private Equity Investors

PE firms build "funds" by attracting investment dollars from investors (the "limited partners"). They then pool these investments and invest in a pre-specified group of companies. A common maturity of a fund is 7 years, but 10 years are also possible. The fund mangers ("general partners") earn a fee of 2-3% of the fund size, as well as a so-called "carry" (percentage of gain) that may be as high as 20%. They are evaluated based on the IRR (internal rate of return) they earn, and in the U.S., 20% is viewed as a minimum threshold. Thus, funds compete by building a track record of earning high returns, and they typically specialize in a particular area of investment activity where they build deep knowledge and a network. To earn high returns they invest most of their AUM (assets under management), usually as fast as possible so that they can show returns at around the half-time of the fund. The portion of AUM that is not invested is called "dry powder".

The best-known form of private equity is venture capital (VC), which is set up in similar ways but focuses on startup companies. In contrast, corporate buy-out funds focus on established firms 'units, subsidiaries, or privately held companies. Just as VCs guide startups, set milestones and perhaps bring in a new CEO, corporate buyout funds introduce new management systems, additional funding and consulting expertise. Many PE funds have their own consulting firm or in-house consultants, in addition to access to a network of professional CEOs.

When a large company wants to exit a certain business, it has basically three options: (a) sell it to another company (such as a competitor), (b) merge it with another company's units into

[1] BCG (2017), METI (2017a)

a new company (a type of spin-out), or (c) selling it to a private investor (a carve-out). In a carve-out, the investor is usually a private equity firm. The company may retain an ownership stake in the unit. A high-quality, long-term PE firm then may bring in a seasoned CEO who invests in and rebuilds the organization. This is akin to flipping a house but based on high-level business management skills and hard decisions on how to restructure. This corporate remodeling usually takes four to seven years. For the PE firm, the risk is that if the turnaround effort falls short, it will wipe out the entire investment; the reward comes by selling the remodeled firm at a much higher price. In contrast to this high-quality approach, a financial engineer PE (a short-term vulture) does not invest much in the object; like a chop shop, they sell the underlying assets, pay themselves an enormous fee, and shutter the firm. One example of such deleterious engineering is to invest in a retail chain that owns its own stores, sell the real estate (and pay themselves), and then force the retailer to lease back the stores which will eventually drive them into bankruptcy; this was the sad turn of event at Mervyn's, an erstwhile leading U.S. retail chain. [2]

Good or Bad?

PE funds fall on a spectrum of length of investment horizon (short to long) and profile (high to low); one may think of this as a 2x2 matrix, with the two dominant boxes the long-term, engaged, low profile variety, as opposed to the short-term, aggressive, high profile ones. Another way of expressing this differentiation is to think about high-quality, long-term owners on the one end, and financial engineers (aka "vultures") on the other. In a 2017 interview, the Chief Investment Officer at Yale University descried the former as "intelligent capital investment" and labeled the 'buy -- make better –sell 'activities a "superior form of capitalism". In contrast, he found the activist approach to be "a naïve playbook that is destroying the quality of companies and the market overall." [3]

It is not always easy to tell the difference between the two. Even within one company, fund managers may have different approaches. The world's largest private equity funds -- KKR (oldest), Blackstone (largest overall), Carlyle (largest PE), and Bain Capital Private Equity (largest restructuring) – have assets under management exceeding $100 billion each and operate in multiple market segments with different objectives. They have been associated with both, successful turnaround as well as companies 'destruction. Naturally, as Japanese companies invite PE investors to buy their subsidiaries and business units, their goal is to bring to the table only the high-quality value creators and build barriers against the financial engineers.

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[2] Appelbaum/Blatt (2014)

[3] Swenson/Rubin (2017). On short-termism and value destruction, see Lazonick (2009a, b, 2014), Lazonick/O'Sullivan (2000), Appelbaum/Batt (2014).

3. PRIVATE EQUITY IN JAPAN

Japan's experience with PE funds began in the mid-1990s when the growing crisis attracted Wall Street firms to Tokyo. GE Capital was one of the first major entrants; Ripplewood and Cerberus arrived in 1998 when they bought out two of the former long-term credit banks that had gone into receivership. When the former flagship Industrial Bank of Japan (IBJ) was merged into Mizuho, a large financial group, many of the best and brightest jumped ship to join foreign PE funds. The struggling banks tried to salvage at least some value from non-performing loans and sold collateral to these funds, often at 10 cents to the dollar, making entry relatively easy and lucrative. The initial bonanza ended in the early 2000s, and by then some of the Japanese employees had established their own funds.

Even though they helped alleviate the banks 'non-performing loan burden, these early funds were seen as barbarians at the gate, as they benefitted from Japan's post-bubble crisis. Between 1997 and 2002, in the first round of choose-and-focus after the 1998 banking crisis, PE funds bought more than ¥30 trillion ($250 billion) of distressed assets and real estate. In 2007, a hit NHK-TV drama series titled *Hagetaka* ("Vultures") portrayed buyout funds as rapacious, evil invaders from Wall Street that destroyed Japan's inefficient small or family-owned firms. In the show, foreign companies use financial schemes unknown to Japan to bring efficiency and discipline to corporate Japan. The series triggered heated discussions regarding the costs and benefits of market discipline versus Japan's traditional style stable ownership, as well as corporate Japan's need to change.[4]

Japan's Koizumi boom of 2003-2007 triggered "leave it to the market" deregulation and invited a second round of PE growth. Between 2002-07, the number of annual deals nearly quadrupled from 23 to 90, for a total value exceeding US-$ 10 billion in 2007. Still, most of these early deals were non-core divestitures and turnaround investments. While the market was growing, Japan's CEOs nevertheless remained cautious: foreign funds were still seen as vultures and dealing with them was stigmatized. After the 2006 Bull-Dog Sauce case, where Japanese courts found activist investor U.S. Steel Partners to be an' abusive acquirer', the global financial crisis hit, and many U.S. firms retrenched and exited Japan. Since then, Japan has greatly reformed its corporate governance code, and introduced a new stewardship code that prescribes the role of institutional investors in the new system. [5] In 2018, a Japanese fund manager reflected back on the case to comment that "there has been a complete change since the Bull-Dog case in 2006. This would take a completely different path today."[6]

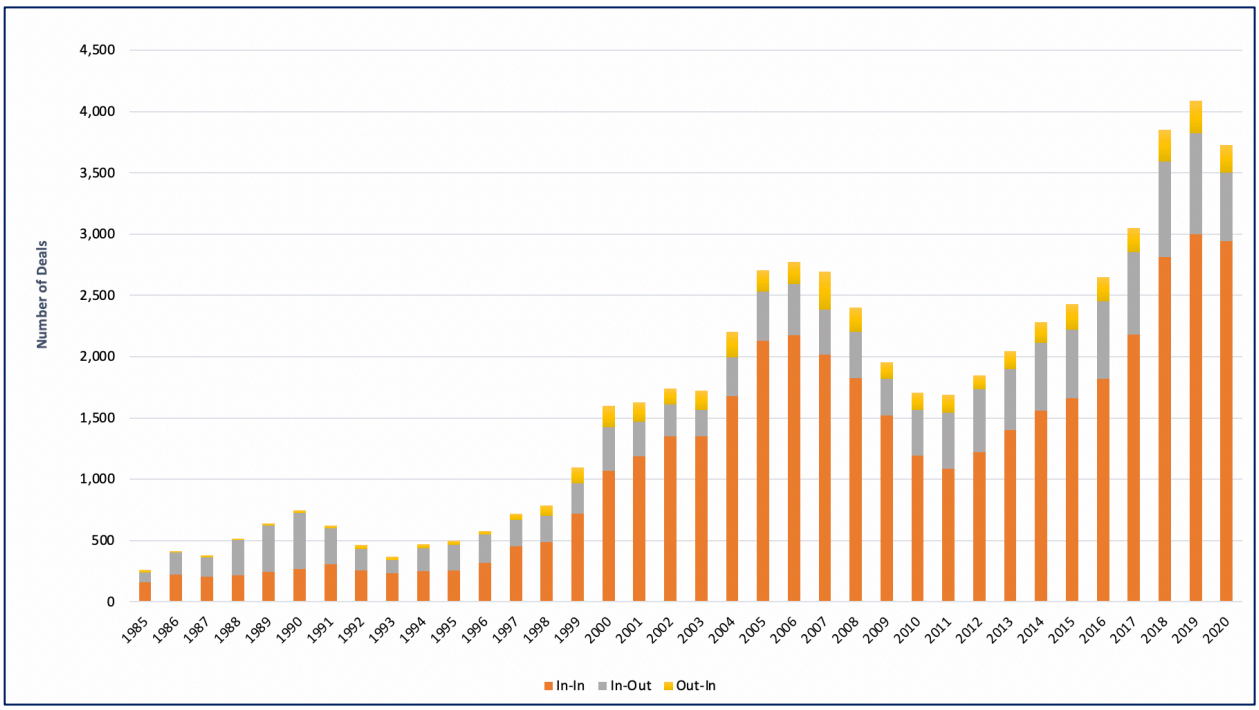
[4] Schaede (2008)
[5] Schaede (2020)
[6] Interviews, Tokyo.

The Size of the Japanese PE Market

Reflecting this sentiment, Prime Minister Abe's "Abenomics" reform program invited a third PE boom, when Japan emerged as an attractive, stable PE market in the mid-2010s. Unlike previous episodes, a large portion of this new activity was domestic. Between 2013-2017, the PE industry in Japan raised roughly $3 billion annually, and in 2017, assets under management were estimated at around $30 billion, with over $10 billion in dry powder. In 2017 alone, Japan-focused PE funds raised $5.7 billion, and regional funds that included Japan raised $22 billion, twice the amount of 2016.[7]

Exhibit 1 : Mergers and Acquisitions, 1985-2018, in Number of Deals

Source: MARR/Recof Data, https://www.marr.jp/genre/graphdemiru



In industry statistics, PE activities are considered mergers and acquisitions (M&A). Exhibits 1 (number of deals) and Exhibit 2 (volume of deals, in billion Yen) show that the years 2018 and 2019 were record-setting for Japan's M&A market, with about 4,000 deals worth ¥30 trillion (roughly $300 billion) and ¥17 trillion ($170 billion) respectively.[8] The trendlines are clearly upwards-sloping, and even though 2020 looked more subdued, industry reports suggests that

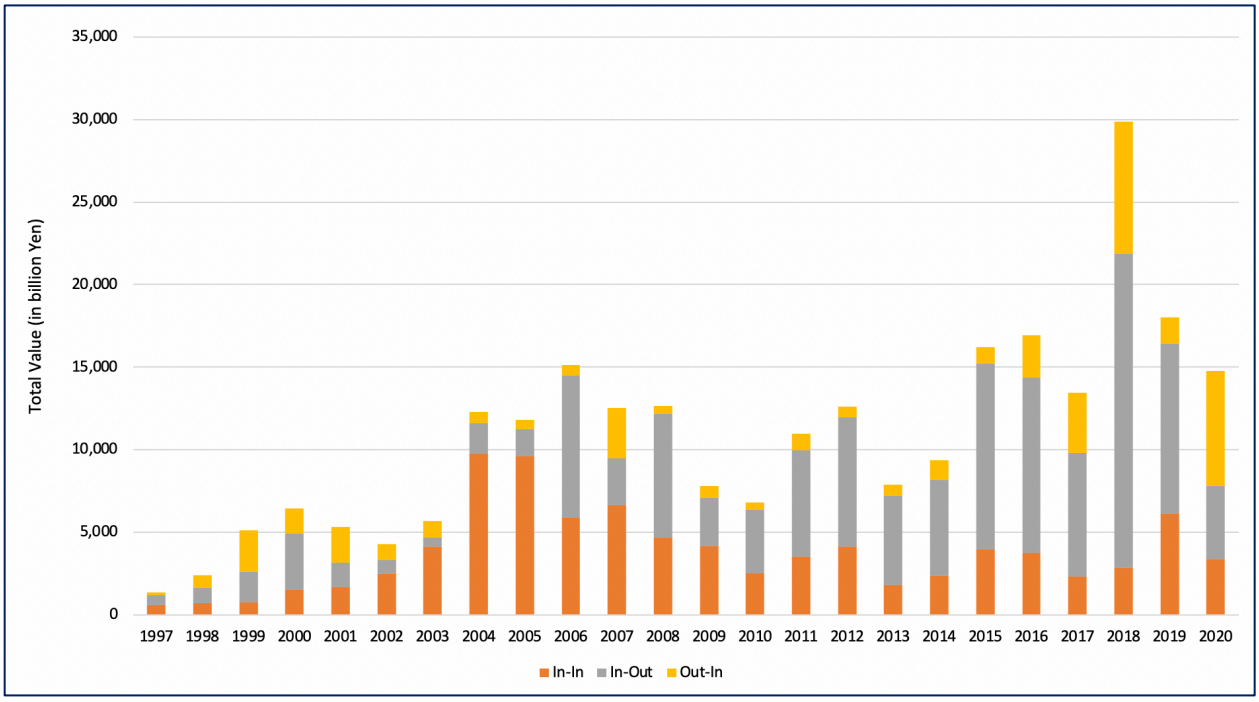
[7] Sekine (2018)
[8] These data will be updated to include 2019.

both the supply and the demand continue to exist, and hopes are high for a re-uptick going forward.

In terms of number of deals, most of this PE activity was domestic, whereas by value, most were so-called "in-out" deals, i.e., Japanese companies acquiring companies abroad. According to industry estimates, about 50% of domestic M&A were business succession deals (involving small firms), followed by 20% of both divestitures and management buy-outs (carve-outs and spinouts) by large firms. A smaller number, though an important portion in terms of value, were mergers between large Japanese firms.

Exhibit 2 : Mergers and Acquisitions, 1985-2018, in Volume (billion Yen)

Source: same as Exhibit 1



This increase in market size has increased liquidity and depth, and has made Japan attractive for global investors. In addition to the domestic players, global PE funds have begun to enter, or re-enter, Tokyo. Between 2006-2016, while the stock market was stagnant with returns of 1x, Japan's PE industry earned 2x on the large deals and 4x on deals under $55 million. The market reached a sweet spot: enough liquidity to allow big deals but not so competitive as to drive down the returns. Entry multiples (i.e., price to pay for assets expressed in relation to

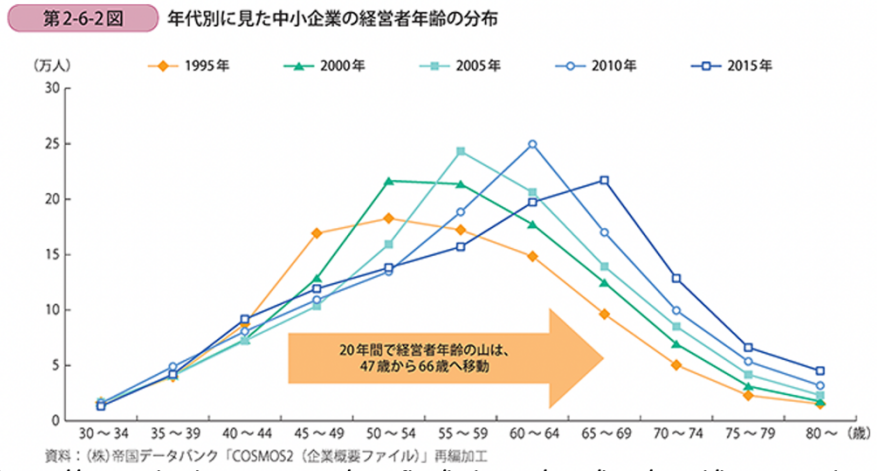
earnings) were at around 7x EBITDA, much lower than in the U.S. (10-14x) or Europe (10-12x), but this 7x EBITDA was about 25% more than the seller could earn through other sell options.[9]

Categories of Japanese PE

Japan's rapid growth in private equity activity in the 2010s was driven by two main categories: succession deals and choose-and-focus carve-outs. About 50% of Japan's M&A activity in the late 2010s was associated with the "succession challenge", caused by a massive retirement wave of post-WWII founders of small firms that lack a successor. Exhibit 3 shows that between 2000 and 2018, the median age of managers of small firms increased from 47 to 66, and it was estimated that, by 2023, over 300,000 small firm owners will reach the age of 70, 62% having no succession plan. The cognizant ministry, METI, estimates that closing these companies down would be costly to society: they employ an estimated 6.5 million people and contribute about ¥22 trillion (roughly $220 billion) to GDP. [10] Their banks and surrounding regional economies may also depend on them. In a similar vein, albeit on a different scale, in 2020, Carlyle, Japan's largest PE fund, estimated that there were 2.6 million family-owned companies, and that 71% of these had a need for either succession planning or restructuring.[11] To facilitate restructuring in this middle market, in 2018 the tax reform for corporate succession offered incentives for PE funds to invest. This has opened a new market opportunity for PE funds domestically to bring in capital, advice and management experience to small firms.

Exhibit 3: The Age Distribution of SME CEOs in Japan, by Cohort[12]

https://www.chusho.meti.go.jp/pamflet/hakusyo/H30/h30/excel/b2_6_02.xlsx



[9]" Why Japan is entering a golden era for PE", PEI Media April 9, 2018; "Why private equity giant KKR finds Japan more attractive than China", DealStreet Asia, April 18, 2019.
[10] MARR (2019), Ng (2018)
[11] Interview, Carlyle Tokyo, March 23, 2020.
[12] This chart will be reproduced later.

The second large category was the corporate carve-out market, as already mentioned. As of 2019, Japan still had more than 250 conglomerates, defined as firms with more than 50 consolidated subsidiaries, and these 250 companies owned more than 30,000 subsidiaries.[13] One quarter of firms listed on the JPX 400 had more than 100 subsidiaries each. The arrival of foreign shareholders generated concern about a so-called "conglomerate discount", Wall Street speak for lower share prices due to diversification, which in turn might invite activist shareholders who would force selloffs to raise the stock price. Rather than dealing with these perceived vultures, companies turned to PE firms to help them consolidate at their own pace. In 2015 alone, there were 842 spinout cases worth over $50 billion, followed by 850 cases in 2016 worth over $30 billion.[14]

PE funds also engage in turnaround and distress deals, where they invest in companies in trouble. In Japan, there are many small- to medium-sized companies that are forced to declare bankruptcy despite having strong key projects and a loyal customer base, because they lack the management wherewithal to escape a crisis situation. This has become a growing business for Japan's domestic PE funds. Finally, there are also so-called management or leveraged buyouts, where a company chooses to delist from the stock market, perhaps to escape a vulture attack, and invites a PE fund to structure the financing of buying back the shares outstanding. In Japan, these are still rare and often entail smaller firms.

Japan: PE Investors

In contrast to the U.S., where pension funds (43%) and insurance companies (13%) dominate the PE investors, in Japan, 53% of PE investments are sourced from corporations and banks.[15] The corporations use PE investments to deploy a portion of their large cash holdings: in early 2019, they were estimated to hold $4 trillion in cash reserves, with a capital-to-asset ratio exceeding 40%, and these assets were partially fueling the PE market.[16] But the largest domestic driver, by far, were the so-called "policy investments" (*seisaku tōshi).* These refer to three main categories: (1) pension funds (including the GPIF), (2) Japan Post through its own fund JPIS (Japan Post is also a bank and insurance company and holds $1.85 trillion in assets, of which 40% are earmarked for alternative investments), and (3) so-called public-private funds. The largest of these public-private funds are the INCJ and its 2019 successor, the JIC, with $20 billion in assets under management. The JIC was engulfed in a huge scandal in late 2018

[13] Advantage Partners website, https://www.advantagepartners.com/en/descripion/description2 , accessed April 24, 2019.
[14] METI (2017a)
[15]" Japan-Based Investors in Alternative Assets", 2016, https://docs.preqin.com/reports/ Preqin-Japan-Based-Investors-November-2016.pdf, METI (2017a).
[16]" Japan Inc.'s vast pool of cash is growing stagnant", *Nikkei Asian Review*, July 10, 2017; "Cash-hoarding Japanese firms please investors as share buybacks hit record high", Reuters, Feb 17, 2019.

regarding its mission, organization structure, government command and executive pay which revealed all the inherent contradictions of running a public-private fund in the private equity sphere. As of 2019, these funds occupy such a large fraction of Japan's entire investment pool that they have to distribute their funds over a large number of asset managers, including in so-called 'fund of funds 'that combine smaller asset managers. This has spawned a rapidly growing new asset management industry, and the GPIF and JPIS have recently also entered the market as general partners.[17]

Family offices of wealthy individuals, mutual funds and other private asset management funds are a less publicized but quickly growing source of liquidity for the emerging PE industry. As we saw in the introduction, Japan now has many wealthy individuals, and as of December 2016, total Japanese household financial assets were estimated at over US-$15.4 trillion.[18] While details are unknown, asset managers report that a growing portion of their assets is channeled into alternative investments, and in particular private equity.

This activity has created a positive feedback loop, whereby the stock market puts pressure on management to increase profits, and CEOs look to PE alternatives to refocus, which leads to more investment into Japan that brings more discipline for managers, which fuels further carve-outs. By the mid-2010s, the world's largest PE funds all had committed billions of dollars to the Japanese market, and a domestic industry was flourishing. In 2016, KKR declared Japan its "first priority" outside the U.S. and invested $10 billion in Japan in three mega deals: Hitachi Kokusai Electric, Hitachi Koki Co., and Calsonic Kansei from Nissan Motors.[19]

4. PE JAPAN-STYLE: THE REPUTATION COSTS OF BREAKING A PROMISE[20]

There are now three large categories of PE firms active in Japan: (1) global portfolio PE firms that pursue a variety of goals, including exchange rate diversification; (2) foreign (mainly U.S.) PE firms with a large office in Japan, as part of a wider Asia strategy or with a country focus, and (3) Japanese-owned domestic PE firms. For the purposes of this analysis, the latter two are of most relevance.

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[17] Jonathan Rogers, "Japan Post Bank to Establish Hedge Fund in Hunt for Yield", *Global Finance* June 1, 2018; The private-sector leadership team was forced to resign over allegations of excessive pay, which was the façade reason for the deeper issues of mutual distrust regarding government control over the fund's investments. E.g., "CEO and 8 other execs of Japan's innovation fund resign", *Nikkei Asian Review,* December 10, 2018.

[18] CapGemini (2018)

[19]" Profits and Pitfalls – taking over a Japanese company", *Nikkei Asian Weekly*, June 11, 2018; "Global Firms seek a piece of Japan carve-out action", *PEI Media* November 5, 2018, "KKR Founders set sights on Japan conglomerates", April 14, 2019.

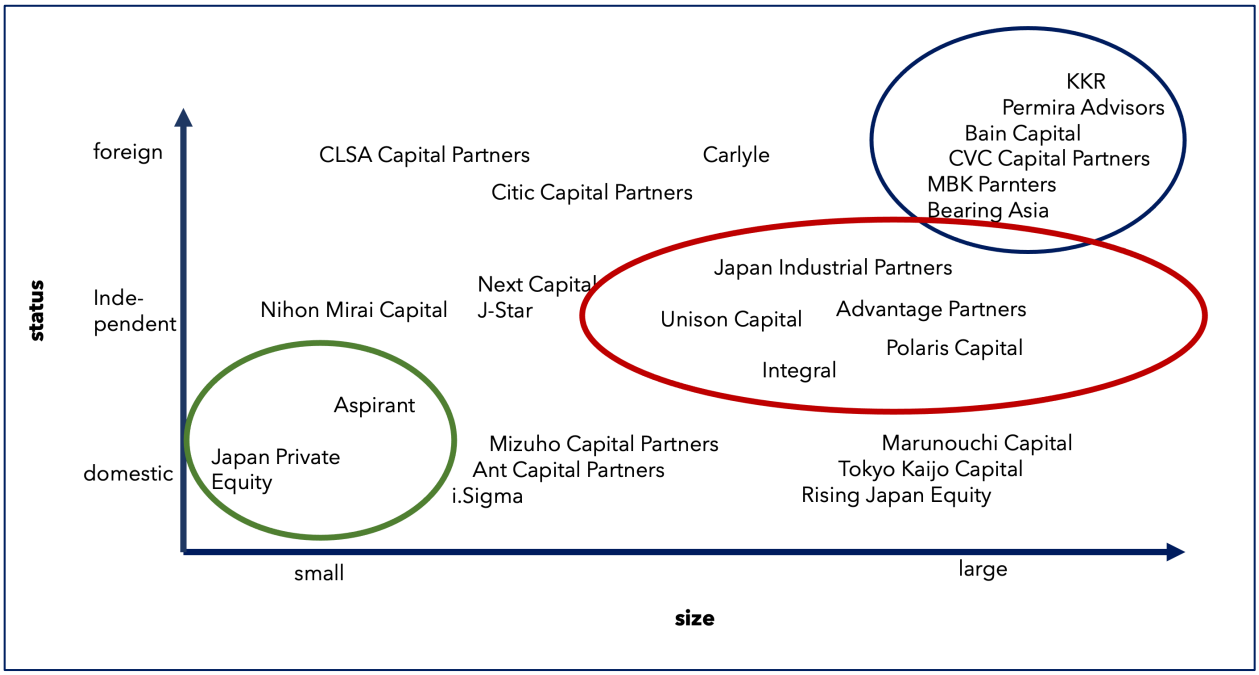
[20] *More information will be added to this section later.*

Exhibit 4 maps the main PE players in Japan, as of 2020, by status (foreign, independent, domestic) and size. The leading foreign PE firms in Japan are the Big 4: Bain Capital PE, KKR, Blackstone and Carlyle. Carlyle has been in Japan since 2001, and in addition to global assets, has raised more than $3 billion in Japan. Even though Carlyle experienced three major failures, including in telecommunication provider Willcom, Toshiba's ceramics business Covalent, and display panel company Avanstrate, it has been steadfast in its commitment to Japan. Bain and KKR have come, gone and come again with a large war chest at around 2016.

The largest Japanese PE firms, with more than $500 million of assets under management as of 2018, include Advantage Partners (the oldest and largest), Integral, Japan Industrial Partners, Polaris, Advantage, Tokio Marine Capital, Marunouchi, Unison Capital, and NSSK (*Nippon Sangyō Suishin Kikō*, an offshoot of TPG). The next tier consists of about 20 funds with assets over $100 million, including CLSA Sunrise Capital, New Horizon, Rising Japan, Whiz Partners, AZ-Star, Globis Capital, i.Sigma, and ACA. In 2018, the entire domestic industry was estimated to have 235 PE funds, up from 175 a year earlier; in other words, an average of one new PE fund was created per week in 2017.[21]

Exhibit 4: Stylized Mapping of Japanese PE Companies

Source: based on author interviews with representatives at 10+ Japanese PE firms



[21] Many of the Japanese funds had less than $300 million of assets under management and focused on the small and middle market.

Almost all of these PE firms have Japanese fund managers and office heads. Industry observers sense that the truly foreign funds are much less successful, because most Japanese CEOs are trying to repel short-term financial engineers through relationship-building. As Japanese CEOs base their deals on Japan's long-standing values of loyalty, long-term relations, incremental commitment and respect, they tend to rely more easily on other Japanese. In deals where the main PE fund is a foreign firm, there is typically a Japanese co-investor, to create a sense of balance, even if that makes little sense from a financial perspective.

The Japanese fund managers have a variety of backgrounds, but the stereotypical career path of the most important ones – from the heads of Integral, Advantage and JIP to those at Carlyle and Bain – is a former career in traditional Japanese banking. Within Japan, these Japanese fund managers are sometimes seen as outsiders, as they are "rocking the boat" with their reformist approach to corporate restructuring. But within Japan's PE industry, they are successful because they know how to navigate Old Japan's business norms. They typically started their careers at the beginning of the bubble, and then quit during the banking crisis of the 1990s. Some of them joined a foreign PE fund right away, while others gathered more experience in an M&A advisory or foreign consulting firm before they turned PE fund managers. Having been groomed as bankers in the 1980s, they know what it takes to be (or appear) appropriate, they understand – and often genuinely share – the seller's preferences for value creation, and they know how to be responsive to conservative Japanese asset owners such as pension funds.

Overcoming the Suspicion

The PE industry in Japan has experienced a major upgrade in reputation, and in contrast to the early 2000s, PE funds were increasingly seen as helpful to the economy— in contrast to the U.S., where demands are getting louder to rein in Wall Street's rapacious behavior.[22] Traditionally, Japanese CEO – of firms small and large - have long been suspicious of the short-term financial engineering that often occurs in PE-deals in the United States. To overcome their hesitations to sell, Japan's PE industry has developed its own culture and norms of appropriate behavior for these market transactions. Through a variety of mechanisms including exclusion and nudging, Japan has created a PE marketplace that incentives participants into assuming more long-term, value-creating strategies. For the large manufacturing companies, selling highly valuable assets means parting with businesses that are near and dear, and Japan's keen sense of loyalty and obligation often makes such trades difficult. For the small-firm CEOs, too, selling their companies is about much more than money. There is a sense of legacy, but also responsibility to employees, communities, and the company's image. Of course, CEOs are fully

[22] citations

aware that this is not necessarily market-rational, but they nevertheless proceed slowly and demand assurances that the units sold off would not simply be stripped of their assets and discarded. As they try to find a new home for their assets, they are looking not for the highest bidder but the right owner. [23] Trust is not usually a word associated with global private equity, but for many of Japan's CEOs it is a precondition, to assure that their business units end up well. Through this insistence, slowly but surely Japanese companies have developed a set of rules, and even hard-core Wall Street players are abiding by them.

From the CEO perspective, two mechanisms are in place of uphold this defense. First, the reputation costs of betraying the trust of senior management are very high. Any fund that violates a company's trust greatly diminishes its chances of succeeding in another bid. Tokyo's financial industry is well networked and news travel fast, and CEOs know which fund managers deliver. They are also prone to being unforgiving and have long memories. To be successful a PE fund must build a reputation for reliability, and one fund manager reports that making a PE deal in Japan takes "years of courtship".

This is especially true for the smaller succession deals that are often proprietary (and not auctioned off), where it is common that only one PE fund works with the company. To get this exclusivity requires a convincing value creation plan, and to deliver on the promise. And because the sellers are looking not for the best price but the right owner, they will simply not deal with vultures, no matter the price they offer. Foreign investors have realized that the rushed deal-making of Wall Street is not a winning strategy in Japan, and even activists such as Daniel Loeb are said to be toned-down when they come to Tokyo, as they have learned that nudging and shaming are more effective than issuing demands.

Second, unlike in the U.S., assets are rarely auctioned; if they are, the bids are by invitation only. Deals require long cycles of interaction between the seller and the fund. Sometimes sellers demand that there be two buyers, one ideally Japanese, in the hope that this will introduce more power balance, and an additional layer of insurance against short-termism. All this has resulted in the emergence of a private equity market that differs greatly from the U.S., not just in tone but also in durations of deal making and expectations of value creation. As another fund manager remarked: "Of course, the occasional fake long-term proposal happens, and then they go in and break the company apart or flip it right away, that's a social reality. But those guys can do it only once – they will never get another deal in this town." [24]

Future Challenges

[23] Interview with more than 10 private equity fund managers, Tokyo, spring 2020.
[24] Interview, PE fund manager in Tokyo, March 2020.

A big challenge for Japan's PE industry is the lack of a deep pool of managerial talent. It is reported that there is some exceptional talent in the Tokyo PE offices, who have spent time abroad and bring to the table global experience and a local network. But they are rare, and there are also many fund managers that are still learning the ropes. Because there are not many established case studies yet in Tokyo on how to structure a PE deal, they cannot draw on an established toolkit or provide a long track record for investors to assess.

Moreover, the PE fund managers – who tend to come from a banking or consulting background – are often inexperienced leading a business transition. When the industry was small this was not as much of an issue, because the portfolio firms could be left to their own devices or perhaps a manager could be found. But as more, and more advanced, deals are coming on-line, the fund managers have to oversee the activities of their portfolio companies in more hands-on ways. Consultants, too, are scouting for talent to advise the new managers on executing a turnaround strategy, which is a different skill set from the existing pool.

Underlying these challenges is a lack of experienced turnaround CEOs, consultants and other supporting industries. The success of a PE fund critically depends on the quality of its access to a manager who can turn around the portfolio companies. However, there is still no liquid market for CEOs, and large firms tend to hold on to their leadership talent. At the General Management level, few Japanese managers have gone through outside leadership training, and few hold an MBA. The experience that they bring to the carve-out is typically limited to how to run a manufacturing operation, meet targets and produce mid-range plans. Very few are actually trained by their large-company employees on how to manage a business. While running operations is an important skill, it does not equip the portfolio firm with the talent to assume CEO roles.

There is a pool of so-called "professional managers" (*puro keieisha).* Tokyo businesspeople think that the actual number is probably closer to 1,000 managers in their 50s who have a background in consulting, investment banking and management and could be hired to run PE portfolio companies. However, these "pro managers" are often not considered part of the establishment, nor do they necessarily have the career path and experience that would prepare them for the traditional CEO role. Even though they may be quite capable in the smaller succession deals, they rarely have the network and access to be successful leaders of large portfolio firms. If one had to identify the biggest pain point in Japan's young PE industry as of 2019, it is the lack of management experience, both at the level of the PE funds and their portfolio firms.

This managerial talent scarcity may change as the PE industry itself becomes more mainstream, and there are some indications that this is beginning to change. In 2018, TV Asahi launched a new version of *Hagetaka.* While the 2007 original portrayed ruthless foreign investors

and Japanese inexperience and *angst,* in the new version private equity is portrayed as a positive force that rescues corporate Japan and even protects it from evil market forces.[25]

5. CONCLUSIONS: IMPLICATIONS FOR JAPAN'S FINANCIAL SYSTEM

The fast growth of the PE industry in Japan bespeaks of the depth and breadth of ongoing corporate reorganization in Japan. For large firms, the deals are too large for the traditional processes of main bank financing (and match-making) to work. New infusions of capital are needed to help global corporates such as Hitachi in pivoting toward becoming an advanced data solution and smart infrastructure provider. At the same time, a lot of smaller founder firms possess resources – often in the form of specialized technologies – that, with the right managerial acumen can be turned into larger assets. As both types of companies are looking for ways to sell their assets, the PE industry in Japan has begun to thrive.

However, it is still very different from the United States, in that companies are generall unwilling to simply sell to the highest bidder. Notions of employee responsibility and corporate social responsibility – especially among small firms in the regions – remain strong. This has shaped the attitudes and behaviors of PE players in Japan, including of foreign investors. The biggest defense against short-term financial engineering is ostracism: the clear threat that an investor that breaks promises of medium- to long-term value creation will not get another deal.

Whether such soft mechanisms will be successful in defending financialization – the reorientation of corporate activities to please financial interests, often at the expense of reinvesting into the company by pushing innovation or raise wages – remains to be seen. But Japan's experience offers an interesting snapshot of how a market can create its own culture – norms of behavior – and shape the actions of all participants.

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The impact of the coronavirus pandemic on high performance work practices and collective employee engagement: Evidence from Japan, Singapore, and Australia

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The impact of the coronavirus pandemic on high performance work practices and collective employee engagement: Evidence from Japan, Singapore, and Australia

Abstract

The ongoing COVID-19 pandemic is the worst since Spanish flu in 1918. It has had a massive impact on the global economy and upended our lifestyle. Companies have changed their management practices in response to the economic recession and the new normal brought about by the pandemic. Against the backdrop of this situation, I focus on high performance work practices (high commitment work practices and flexible work arrangements) and examine the impact of the pandemic on collective employee engagement in Japan, Singapore, and Australia. A total of 326 managers responded to the questionnaire. High commitment work practices were used more extensively before the pandemic—which improved collective employee engagement. Flexible work arrangements are used more extensively following the pandemic—which can also improve collective employee engagement. Engagement by employees covered by flexible work arrangements following the pandemic can vary between nations as well as between companies.

Key words: COVID-19 pandemic, high commitment work practices, flexible work arrangement, organizational culture, collective employee engagement

Introduction

The novel coronavirus disease or COVID-19 has spread around the world since it surfaced at a seafood market in Wuhan, China in December 2019 (Taylor, 2021), upending life and ravaging the global economy. There is no end in sight for the pandemic crisis as of writing this paper. Instead, many parts of the world are in the middle of the third wave of COVID-19 infections as the number of people testing positive for COVID-19 and dying from the disease is increasing exponentially around the world. Although the vaccine against COVID-19 has been developed and has begun to be rolled out in the United Kingdom, the pathogen seems to be out of control as a new strain of the coronavirus, difficult to detect, is emerging in the UK, South Africa, and other parts of the world. The pandemic has significantly affected businesses and their employees. Restaurants, bars, retailers, sports gyms, and other "non-essential" businesses have been requested or ordered to close in order to prevent the further spread of the coronavirus. Countries around the world have banned the entry of visitors from other nations to airports. Consequently, airline companies, hotels, and other tourism and travel sectors have been hit hard by the pandemic and have suffered massive operating losses. Manufacturing companies around the world have halted their operations as their global supply chains have been disrupted due to the pandemic; they largely depend on Chinese manufacturers to produce their product parts, and Chinese manufacturers have stopped their operations as their workers have been ordered to stay home. Manufacturers have suffered not only from the disruption of global supply chains but also from plunges in global demand. A broad array of manufacturing companies around the world, from producers of automobiles and machinery to aircraft manufacturers, are struggling with the economic aftermath of the coronavirus pandemic. The world economy has contracted worse during the coronavirus recession than during the global financial crisis of 2008 (Chan,

2020). Employees are also casualties of the coronavirus recession. A number of people in many parts of the world have lost their jobs. The unemployment rate is particularly high in the United States and European countries such as the UK and France (Alderman & Abdul, 2020). It may be that the economic recession has significantly affected and changed the way business organizations are run and their employees are managed.

New norms or guidelines of social life have appeared during the pandemic. Social distancing and staying home among other norms have caused people to isolate themselves from others and have changed their behavior. In response to these new norms, an increasing number of companies have introduced teleworking and other measures such as staggered commuting and the four-day workweek (Itai & Kumamoto, 2021). Employees of these companies are allowed to work from home and attend videoconference meetings.

An economic recession may change organizations and their workplace arrangements. It is reported that the global financial crisis of 2008 affected the way employees were managed (Roche & Teague, 2014). The recession brought about by the coronavirus pandemic may also have had a significant impact on organizations and their management practices around the world. In addition, as the pandemic has created a new normal and a changed social life, organizations and their employees have adapted or are adapting to these changes in a short period of time. Thus, the coronavirus pandemic has had a significant economic and social impact on business organizations in a very short period of time. It is expected that organizations have thus been changed significantly since the outset of the pandemic. Therefore, the pandemic may have affected or be currently affecting management practices and employees' engagement with their work and organizations. Against the backdrop of this ongoing situation involving the COVID-19 pandemic, I focus on high performance work practices, examining the impact of the pandemic on high performance work practices and the resulting collective employee engagement in different countries. As the name suggests, high

performance work practices are expected to improve organizational performance. These practices are becoming common in companies in many parts of the world (Dastmalchian et al., 2020). Huselid (1995), Pfeffer (1998), Baron and Kreps (1999), Zatzick and Iverson (2006), and other researchers (for instance, Dastmalchian et al., 2020) refer to the following practices as high performance work practices: job security policy, extensive training, self-managed teams, job rotation, egalitarian teamwork practices, quality control activities, and other practices used by high-performing companies. High performance work practices are also called high commitment work practices as they can improve the extent to which employees are committed to, engaged with, or passionate about their work, which ultimately leads to improvement in employee retention, productivity, product quality, profits, and other performance outcomes. A few researchers, such as Peretz, Fried, and Levi (2017) and Stavrou (2005), have regarded teleworking (telecommuting), flextime work schedules, and other flexible work arrangements as high performance work practices. I discuss these high performance work practices, namely, high commitment work practices and flexible work arrangements, in this research. It is worth exploring whether high commitment work practices are still used after the pandemic although many layoffs have been reported (Alderman & Abdul, 2020). In addition, it is worth examining whether companies have adopted or expanded flexible work arrangements after the pandemic. However, IBM and other major U.S. companies that had let their employees work remotely later forced them back into the office as they recognized better discussions and decisions came from working at the office (Streitfeld, 2020). I collected data from Japan, Singapore, and Australia in order to test my hypotheses. I thought it would be difficult to conduct a survey on organizations and management in countries hit hard by the pandemic as most of the prospective respondents would be unemployed. When I began conducting the survey in December 2020, the three nations listed above had not been hit as hard by the pandemic as many other nations. COVID-

19 cases and deaths were lower in these three nations than in many others. Thus, I chose them as the targets of my survey research.

This research makes theoretical contributions to research on high performance work practices and strategic human resource management (SHRM) because it examines the impact of the coronavirus pandemic, the worst since the Spanish flu in 1918, on high performance work practices, namely high commitment work practices and flexible work arrangements, as well as the resulting collective employee engagement, in three nations.

Literature Review and Theoretical Development

Employees engaging in high performance work practices may be engaged in their work and provide consummate effort (Baron & Kreps, 1999). They work for the best interests of the organization based on a deep understanding of those interests, are flexible and willing to take on assignments different from their normal work, and work with their brains as well as their hands. High performance work practices are closely combined with, and developed in, long-term employment systems or internal labor markets (Baron & Kreps, 1999). Job security is integral to high performance work systems. It complements extensive training, quality control teams, egalitarian teamwork, and other practices (Pfeffer, 1998). I refer to these practices as “high commitment work practices,” constituting a system of high performance work practices. High commitment work practices are opposed to the traditional Taylorist approach to managing employees in which personnel are regarded as expenses to be minimized and rank-and-file employees are relegated to repetitive, mind-numbing jobs (Appelbaum, Bailey, Berg, & Kalleberg, 2000; Arthur, 1994). High commitment work practices are aimed at maximizing employee engagement by allowing them to participate in decision-making processes, developing their skills and capabilities, and motivating them intrinsically and extrinsically (Arthur, 1994).

High commitment work practices have become prevalent in companies in many societies and cultures (Nadeem, Raza, Kayani, Aziz, & Nayab, 2018). However, economic downturns or recessions cause downsizing of human resources and high commitment work practices (Datta, Guthrie, Basuil, & Pandey, 2010; Zatzick & Iverson, 2006). Companies take recessionary (cost-reduction) or retrenchment actions in response to economic and financial crises (Wood & Ogbonnaya, 2018). These actions involve employee layoffs, extensive pay cuts, and the use of contingent workers (Datta, Guthrie, Basuil, & Pandy, 2010; Wood & Ogbonnaya, 2018). The Great Depression of 1929 forced companies to shrink their workforces and trim their welfare programs (Jacoby, 1997). It is reported that the economic impact of the ongoing COVID-19 pandemic is worse than that of the 2008 recession and that the world faces the worst recession since the Great Depression (Chan, 2020). Given this, the pandemic may have a huge impact on companies and their management practices. Companies are expected to use high involvement management practices less extensively after the pandemic and, instead, to take recessionary or retrenchment actions by, for instance, laying off employees or putting them on furlough. Conversely, it may be that companies used high commitment work practices more extensively before the outbreak of the pandemic.

While companies seldom use high commitment work practices after the pandemic, it seems that an increasing number of companies have started or expanded the use of teleworking after the pandemic (Streitfeld, 2020), and that companies have introduced flextime work schedules to promote teleworking (Harper, 2020). A few researchers, such as Peretz, Fried, and Levi (2017) and Stavrou (2005), refer to teleworking (telecommuting), flextime work schedules, and other flexible work arrangements as high performance work practices. It seems that new norms in social life have emerged during the pandemic. Social distancing and staying home among other norms have caused people to isolate themselves from others and have changed their behavior. In response to these new norms, it seems that

an increasing number of companies have introduced or are introducing teleworking. Employees at these companies are allowed to work from home and attend Zoom, Webex, or other videoconference meetings. Companies are introducing flextime work schedules to promote teleworking. Organizations have stopped or reduced the use of high commitment work practices and, instead, have taken a cost-cutting or retrenchment approach as a rational response to the economic recession caused by the pandemic. Meanwhile, it seems that organizations have started or expanded the use of flexible work arrangements such as teleworking and flextime work schedules in order to conform to the new social norms of social distancing and staying home. These organizations are adapting to the new normal and embracing flexible work arrangements in a legitimate and desirable response to a new normal in social life. I can explain such an organizational response by drawing on institutional theory (Scott, 1995). Organizations under the new normal are introducing and expanding flexible work arrangements so that they can achieve legitimacy and publicly show this legitimacy to society.

I build my hypotheses regarding the impact of the COVID-19 pandemic on high commitment work practices and flexible work arrangements by drawing from the literature on organizational response to recession, including SHRM research and literature on institutional theory, as follows:

Hypothesis 1a: The pandemic has had a significant impact on high commitment work practices. More specifically, those practices were used more extensively before the outbreak than after the outbreak.

Hypothesis 1b: The pandemic has had a significant impact on flexible work arrangements. More specifically, those practices are used more extensively after the outbreak than before the outbreak.

Employees engaging in high commitment work practices are expected to be highly engaged in their work. Engaged individuals are psychologically present, attentive, feeling, connected, integrated, and focused on their performance; in other words, they are "fully there" (Rich, LePine, & Crawford, 2010). Employees engaging in high commitment work practices are engaged in their work since they assume that their contributions will be reciprocated with appropriate behavior and rewards from employers (Wood & Ogbonnaya, 2018). They are also engaged because they can have and say in, and even control over, their work (Pfeffer, 1998). Therefore, employees engaged in high commitment work practices will be highly committed to their work. Meanwhile, it is expected that companies that rarely use high commitment work practices or that use a lot of traditional Taylorist management practices are unlikely to improve employee engagement. Maertz, Wiley, LeRouge, and Campion (2010) compared survivors of layoffs, offshoring, and outsourcing to a group who experienced no downsizing. They found that survivors of layoffs perceived lower organizational performance, job security, and other workplace outcomes. Similarly, Wood and Ogbonnaya (2018) found that job insecurity, reduced wages, and other recessionary actions were negatively associated with job satisfaction and well-being. Thus, reduction in the use of high commitment work practices after the pandemic is unlikely to improve employee engagement. Given the curtailing impact of the pandemic on high commitment work practices, relative to employees working before the outbreak of the pandemic, employees working after the outbreak are less likely to be engaged in their work. Conversely, employees before the pandemic were more likely to be engaged in their work as there was extensive use of high commitment work practices. Thus, I can expect an indirect effect of the pandemic on employee engagement through high commitment work practices.

Teleworking, flexible time schedules, and other flexible working arrangements can reduce turnover and absenteeism (Stavrou, 2005). Based on social exchange theory, Peretz,

Fried, and Levi (2017) argued that employees feel obligated to give back to their employers when they perceive that their employers care about their well-being by providing flexible work arrangements, which will reduce employee absenteeism and turnover. Extensive use of flexible work arrangements will thus enhance employee engagement. Given the significant increase in use of flexible work arrangements since the outbreak of the pandemic due to the emergence of the new norms of social distancing and staying home, relative to employees working before the outbreak, employees working after the outbreak are more likely to be engaged in their work. Thus, I can predict an indirect effect of the pandemic on employee engagement through flexible work arrangements.

I focus on collective, not individual, employee engagement as I designed my survey to ask managerial employees to evaluate collective employee engagement (regarding collective employee engagement, see Barrick, Thurgood, Smith, & Courtright, 2010). I present my hypotheses on the mediating role of high commitment work practices and flexible work arrangements in predicting the impact of the pandemic on collective employee engagement as follows:

Hypothesis 2a: High commitment work practices mediate the impact of the pandemic on collective employee engagement. More specifically, employees were more engaged in their work before the outbreak than after the outbreak as high commitment work practices were used more extensively in the era before coronavirus.

Hypothesis 2b: Flexible work arrangements mediate the impact of the pandemic on collective employee engagement. More specifically, employees are more engaged in their work after the outbreak than before the outbreak as flexible work arrangements are used more extensively in the era after coronavirus.

High performance work practices can interact with culture (e.g., Dastmalchian et al., 2020). Thus, I discuss the interaction between high commitment work practices and flexible

work arrangements on one hand and culture on the other. However, I discuss the moderating role of organizational culture as it is difficult to capture societal culture. Nevertheless, as Markus and Hamedani (2019) argue that national culture intersects with other cultures, it may have some connections with organizational culture (Dickson, Kwantes, & Magomaeva, 2014). It follows that the dimensions of organizational culture correspond to those of national culture (House, Hanges, Javidan, Dorfman, & Gupta, 2004). Cultural congruence (fit) and incongruence are expected to affect employee perceptions and behaviors (Newman & Nollen, 1996). Certain management practices that are consistent with cultural values are likely to yield desirable employee attitudes and high performance (Newman & Nollen, 1996). As high commitment work practices stress employment guarantees and egalitarian teamwork, it is expected that these practices fit with and work well in collectivist cultures. As I discussed earlier, high commitment work practices are expected to have been used more extensively before the outbreak of the pandemic. A fit between high commitment work practices and collectivist cultures would have increased employment engagement before the pandemic. On one hand, employee engagement of employees engaged in high commitment work practices, prevalent before the pandemic, is likely to have increased further as the nature of culture became more collectivist. Conversely, on the other hand, since the outbreak forced companies to cut employment and high commitment work practices, companies and their employees in collectivist cultures would no longer have benefitted from a cultural fit.

Meanwhile, individualist cultures are likely to support flexible work arrangements as they tend to satisfy people from individualist countries (Peretz, Fried, & Levi, 2017). Thus, it is expected that engagement exercised by employees engaged in flexible work arrangements following the outbreak of the pandemic is likely to have increased further as the nature of culture became more individualist. I can present my hypotheses on the conditional indirect effect of the pandemic on collective employee engagement through high commitment work

practices and flexible work arrangement as a function of a cultural dimension of collectivism versus individualism as follows:

Hypothesis 3a: The indirect effect of the pandemic on collective employee engagement through high commitment work practices is moderated by a cultural dimension of collectivism versus individualism. More specifically, engagement exercised by employees engaged in high commitment work practices before the pandemic increased further as the nature of culture became more collectivist.

Hypothesis 3b: The indirect effect of the pandemic on collective employee engagement through flexible work arrangements is moderated by a cultural dimension of collectivism versus individualism. More specifically, engagement exercised by employees engaged in flexible work arrangements after the pandemic increases further as the nature of culture becomes more individualist.

On the basis of the arguments made so far, I present a conceptual model (research framework) in Figure 1 in which the indirect effect of the pandemic on collective employee engagement is moderated by organizational culture: a cultural dimension of collectivism versus individualism.

Insert Figure 1 here

Methods

I collected data using the online system of a research company in December 2020. I collected data from Japan, Singapore, and Australia. As I mentioned earlier, the economies of these three counties were not hit as hard by the pandemic as other nations such as the US and European countries. I thought that it was possible to collect much data from managerial employees still employed when I collected the data. One-hundred two Japanese managers, 114 Singaporean managers, and 110 Australian managers responded to the survey

questionnaire. A total of 326 managers responded to the questionnaire. The participating companies were in the automotive, electronics, food, information technology, service (e.g., tourism, hotels, restaurants, and healthcare), and other manufacturing and non-manufacturing industries. It should be noted that the unit of analysis in this survey was the workplace, not an individual or company.

I made the English and Japanese versions of questionnaire. I asked several scholars and a businessperson who could speak English and Japanese fluently to check both the English and Japanese versions of questionnaire. I revised and improved the questionnaire after I had received comments from those people and completed both the English and Japanese versions of questionnaire.

Managers responded to the questionnaire items regarding the moderator variable (culture), the mediator variable (high performance work practices), and the dependent variable (collective employee engagement) at the workplace level. My method of data collection might have caused the statistical problem of common method variance (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003) since each manager was supposed to respond to both the mediator and the dependent variables. However, there were several reasons why I only asked managers to respond to the questions. For instance, the current survey would have been more complicated and costly if I had asked managerial and non-managerial employees different questions. The questionnaire asked respondents to evaluate the mediator variable, the dependent variable, and the moderator variable that existed in December 2020, when survey was conducted (that is to say, after the outbreak of the pandemic) and that had existed (and might still exist) before the end of 2019 (that is to say, before the outbreak of the pandemic). Respondents were asked to evaluate high performance work practices, collective employee engagement, and organizational culture retrospectively before the end of 2019, that is to say, before the outbreak of the pandemic. Wright, Gardner, and Moynihan (2003) argued

that it is problematic for a researcher to measure management practices by asking respondents to recall management practices that existed at different points from one to three years previously. I asked respondents to evaluate management practices before the pandemic (less than a year previously) as I supposed they were fresh in their memory.

Study variables

Measures. I adopted all measurements (high performance work practices, collective employee engagement, and organizational culture) except industrial dummies from previous relevant research. All items were evaluated on a five-point Likert scale ranging from 1 "strongly disagree" to 5 "strongly agree." I performed confirmatory factor analysis (CFA) on a six-factor model in which high commitment work practices, flexible work arrangements, and collective employee engagement, as well as the cultural dimensions of collectivism versus individualism, egalitarianism, and performance orientation were specified as latent variables. The results of the six-factor model CFA were not unequivocally favorable (χ^2 = 733.87, df = 155, p < .01, CFI = .92, SRMR = .05, RMSEA = .07): the comparative fit index (CFI) was below the recommended cutoff criterion of .95; standardized root mean square residual (SRMR) was below the recommended cutoff criterion of .08; and the root mean square error of approximation (RMSEA) was just over a recommended cutoff value of .06 (Brown, 2006). A reason for this result may be that high performance work practices are closely connected to organizational culture.

The pandemic (the eras pre- and post-coronavirus). This is a dichotomous variable. The era pre-coronavirus (before the outbreak of the pandemic) was coded as the value of one and the era post-coronavirus (after the outbreak of the pandemic) was coded as the value of zero.

Collective employee engagement. I tried to measure employees collectively rather than as individuals. This is because I asked respondents to evaluate how much employees at their workplace are engaged in their work. I used original and modified measurements from Rich, LePine, and Crawford (2010) and Barrick, Thurgood, Smith, and Courtright (2010). A sample questionnaire item was “Employees feel proud to be part of the company.” Internal consistency reliability among the three items was 0.88. I decided to use the average value of the three items as collective employee engagement.

High commitment work practices. I used measurements of high commitment work practices from Appelbaum et al. (2000), Huselid (1995), Dastmalchian et al. (2020), and other SHRM studies. A sample questionnaire item was “Job security of employees (the probability that they will keep their job) is guaranteed.” The reliability of the six question items was 0.78. I used and regarded the average values of the six management practice items as the index of high commitment work practices.

Flexible work arrangements. I used two measurements of flexible work arrangements from Peretz, Fried, and Levi. (2018). The questionnaire items were “Teleworking: Employees work from home for some or all of the working week by connecting to the workplace on a home computer” and “Flextime: Employees can choose their start and finish times within limits set by the company.” The reliability of the two question items was 0.73. I used and regarded the average values of the two management practice items as the index of flexible work arrangements.

Organizational culture. As I argued earlier, organizational culture is connected to national culture; national culture is difficult to measure. Thus, I assessed organizational culture of companies from three nations. Items from prior research were used to measure the cultural dimensions of collectivism versus individualism as well as egalitarianism and performance orientation (Hofstede, 2001; House et al., 2004). The first of the cultural

dimensions was used as the moderator variable, while the other two were used as different, moderator variables in supplementary analyses. I measured cultural dimensions in terms of cultural practices rather than cultural values since cultural values are so abstract that it is not possible to distinguish cultural differences among organizations (cf., Hofstede, 2001). Sample questionnaire items included “People tend to make decisions in the best interest of the group rather than for themselves” (collectivism versus individualism), “Everyone is allowed to take part in decisions regardless of their job titles” (egalitarianism), and “People strive for continuous improved performance” (performance orientation). The internal consistency reliability was .82 for the three items for collectivism versus individualism. The internal consistency reliability of the three items for egalitarianism was .77. The reliability of the three items for performance orientation was 0.84. I used each average value of those items as a moderator variable in each model.

Control variables. I used 12 industrial dummies as control variables. Industries included automotive, electronics, retail/wholesale, banking, and other manufacturing and non-manufacturing industries. The reference industry was the service industry and was coded as the value of zero and other industries were coded as the value of one against the reference industry.

Analyses

In order to test the hypotheses, I analyzed the data by adopting the mediation model, the moderation model, and the conditional process model (Hayes, 2018), all of which are OLS regression-based models. I performed regression analyses and estimated the mediated, moderated, and conditional indirect effects by executing PROCESS version 3.5.1 for SAS,

created and distributed by Hayes (2018). The mediation model was built to estimate the indirect effect, as follows:

$$Y = intercept_{Y*} + cX + f_1C_j + error_{Y*} \quad (1.1)$$

$$M_i = intercept_{Mi} + aX + f_2C_j + error_{Mi} \quad (1.2)$$

$$Y = intercept_Y + c'X + bM_i + f_3C_j + error_Y \quad (1.3)$$

The direct effect is c'; the indirect effect is $a*b$; and the total effect is $c = c' + a*b$. Y is the dependent variable of collective employee engagement. X is a dichotomous value of the pandemic (the eras pre- and post-coronavirus). M_i is high performance work practices (namely, high commitment work practices and flexible work arrangements), and C_j is the control variables of industrial dummies.

The conditional indirect effect was estimated by building the models below:

$$M_i = intercept_{Mi} + aX + f_1C_j + error_{Mi} \quad (2.1)$$

$$Y = intercept_Y + c'X + b_1M_i + b_2W + b_3M_iW + f_2C_j + error_Y \quad (2.2)$$

$$Y = intercept_Y + c'X + (b_1 + b_3W)M_i + b_2W + f_2C_j + error_Y \quad (2.3)$$

W is the moderator variable of organizational culture. The equation (2.3) implies that the effect of M_i on Y is a conditional effect that is different depending on the level of W. As a result, the indirect effect of X on Y through M_i is also conditioned by W and is a function of the form a ($b_1 + b_3W$) or $ab_1 + ab_3W$. ab_3 represents the weight for moderator W in this form. This weight is called the index of moderated mediation (Hayes, 2018). If $ab_3 = 0$, it turns out that the indirect effect is not conditioned by the moderator.

Results

Table 1 presents the descriptive statistics, including means, standard deviations, correlations, and reliabilities. I found differences in each cultural dimension among the three nations. Table 2 shows the differences and *F* tests. These results may suggest that the differences in each cultural dimension between nations can represent the differences in their societal cultures.

Insert Table 1 here

Insert Table 2 here

Hypothesis 1a predicted the effect of the pandemic on high commitment work practices. Model 1 in Table 3 shows a summary of the results regarding the indirect effect of the pandemic on collective employee engagement through high commitment work practices. The effect (*a*) of the pandemic on high commitment work practices was positive and significant ($\beta = 0.15$, $p < .05$). This result indicates that high commitment work practices were used more extensively before the coronavirus outbreak, thus supporting Hypothesis 1a. Hypothesis 1b predicted the effect of the pandemic on flexible work arrangements. Model 2 in Table 3 shows a summary of the results regarding the indirect effect of the pandemic on collective employee engagement through flexible work arrangements. The effect (*a*) of the pandemic on flexible work arrangements was negative and significant ($\beta = -0.41$, $p < .01$). This result indicates that flexible work arrangements are used more extensively after the coronavirus outbreak, thus supporting Hypothesis 1b.

Hypothesis 2a predicted that, given the positive effect of the pandemic on high commitment work practices, those practices have a positive effect on collective employee engagement and mediate the relation between the pandemic and collective employee engagement. I calculated the indirect effect ($\beta = 0.11$) by multiplying the effect ($\beta = 0.15$, *p*

< .05) of the pandemic on the mediator variable (high commitment work practices) by the effect (β = 0.75, p < .01) of the mediator on the dependent variable (collective employee engagement). The bootstrap estimates of the indirect effect within a 95% confidence interval did not straddle the value of zero in the first model. This result supports Hypothesis 2a.

Hypothesis 2b predicted that, given the negative effect of the pandemic on flexible work arrangements, those arrangements have a positive effect on collective employee engagement and mediate the relation between the pandemic and collective employee engagement. I calculated the indirect effect (β = - 0.03) by multiplying the effect (β = -0.41, p < .01) of the pandemic on the mediator variable (flexible work arrangements) by the effect (β = 0.08, p < .01) of the mediator on the dependent variable (collective employee engagement). The bootstrap estimates of the indirect effect within a 95% confidence interval did not straddle the value of zero in the second model. This result supports Hypothesis 2b.

Hypothesis 3a predicted that the indirect effect of the pandemic on collective employee engagement through high commitment work practices is moderated by a cultural dimension of collectivism versus individualism. Model 1 in Table 4 shows the summary results in regard to the conditional indirect effect of the pandemic on employee engagement through high commitment work practices. With regard to the index of moderated mediation (ab_3 = 0.00), its 95% bootstrap confidence interval straddles the value of zero. Therefore, Hypothesis 3a is not supported.

Hypothesis 3b predicted that the indirect effect of the pandemic on collective employee engagement through flexible work arrangements is moderated by a cultural dimension of collectivism versus individualism. Model 2 in Table 4 shows the summary results in regard to the conditional indirect effect of the pandemic on employee engagement through flexible work arrangements. In regard to the index of moderated mediation (ab_3 = 0.01), its 95%

bootstrap confidence interval straddles the value of zero. Therefore, Hypothesis 3b is not supported either.

Insert Table 3 here

Insert Table 4 here

Supplementary analyses

In order to prove a direct effect moderated by culture and an indirect effect moderated by culture, I conducted supplementary analyses by including each of the two cultural dimensions other than collectivism versus individualism, namely, egalitarianism and performance orientation, in the model. As a result, I found a conditional, indirect effect of the pandemic on collective employee engagement as a function of the cultural dimension of performance orientation. Model 1 in Table 5 shows the summary results in regard to the conditional, indirect effect of the pandemic on collective employee engagement through high commitment work practices as a function of performance orientation. The bootstrap confidence interval (95%) in regard to the index of moderated mediation (ab_3 = -0.01) does not straddle the value of zero. However, the sign on the index was negative, suggesting that the indirect effect before the pandemic decreases as the level of performance orientation increases. Figure 2 depicts the way in which the indirect effect varies depending on the level of performance orientation, along with the direct effect of the pandemic on employee engagement, in order to demonstrate how the indirect effect can be moderated by performance orientation. The direct effect indicates that the effect of high commitment work practices on collective employee engagement before the pandemic was positive regardless of the level of performance orientation. The conditional indirect effect suggests that the indirect effect of the pandemic on collective employee engagement through high commitment work practices before the pandemic decreased as culture became less performance oriented.

I also conducted additional analyses and explored a conditional indirect effect by using national dummies. I found that the indirect effect of the pandemic on collective employee engagement though flexible work arrangement after the pandemic was moderated by a national dummy of Singapore versus Japan and another national dummy of Australia versus Japan. The results are shown in Model 2 and Model 3 in Table 5, respectively. Figure 3 depicts the indirect effects conditioned by the national dummies. I multiplied the indirect effects by -1 and reversed the conditional indirect effects in order to increase an understanding of these effects. Figure 3 shows that the indirect effect of the pandemic on collective employee engagement through flexible work arrangements after the pandemic is larger for Singapore than for Japan and is smaller for Australia than for Japan. Australia, Singapore, and Japan are the most, second most, and least collectivist nations respectively according to my research findings (see Table 2). Given that Japanese employees are more individualist than their Australian counterparts, Japanese employees with flexible work arrangements following the pandemic are more engaged in their work than their Australian counterparts. As opposed to the theoretical prediction based on prior research (i.e., Peretz et al., 2017), however, employees in Singapore—the most collectivist among the three nations—with flexible work arrangements following the pandemic are more engaged in their work than their Japanese counterparts.

Insert Table 5 here

Insert Figure 2 here

Insert Figure 3 here

Discussion

Contribution

First of all, this research contributes to SHRM research in that I have searched for and found the impact of the coronavirus pandemic on high performance work practices, namely high commitment work practices and flexible work arrangements, and the resulting collective employee engagement. Organizations may change the nature of their management practices in the face of recessions such as the global financial crisis of 2008 caused by the demise of Lehman Brothers, the fourth largest U.S. investment bank at that time (Cascio, Chatrath, & Christie-David, 2018; Roche & Teague, 2012). The Great Depression of 1929 also forced companies to shrink their workforces and to trim their welfare programs (Jacoby, 1997). It is reported that the economic impact of the ongoing COVID-19 pandemic is worse than that of the Great Recession in 2008 and that the world faces the worst recession since the Great Depression (Chan, 2020). Given this, the pandemic may also have a huge impact on companies and their management practices. I have thus explored differences in management practices between the eras pre- and post-coronavirus. I have found less extensive use of high commitment work practices after the outbreak of the pandemic. The coronavirus pandemic has not only caused an economic recession but also upended our lifestyle. It has resulted in the emergence of a new normal of social distancing and staying home. Companies have embraced a new working style in which employees are allowed to work from home. Companies have introduced flextime work schedules and other measures such as staggered commuting and the four-day workweek in order to promote teleworking. I have found that the pandemic has brought about not only the disappearance of previously extensively used high commitment work practices but also the emergence of extensively used flexible work arrangements. In addition, I have explored and identified the indirect effects of the pandemic on collective employee engagement through high commitment work practices and flexible work arrangements. More specifically, I have examined and found improvement in collective

employee engagement brought about by extensively used high commitment work practices before the outbreak of the pandemic. Conversely, I have found the negative impact on collective employee engagement of barely used high commitment work practices after the outbreak of the pandemic. Meanwhile, more extensive use of flexible work arrangements following the pandemic can improve collective employee engagement.

Second, this research makes another contribution to SHRM research in that it has not only explored the impact of the coronavirus pandemic on high performance work practices and the resulting collective employee engagement, but has also sought to capture such an impact by taking into account the effect of organizational culture in different nations, namely, Japan, Singapore, and Australia. I have attempted to assess the indirect effect of the pandemic on collective employee engagement through high performance work practices that may be moderated by the cultural dimension of collectivism versus individualism. I have assumed that because national culture intersects with other cultures, it may have some connections with organizational culture (Dickson, Kwantes, & Magomaeva, 2014). I have not been able to prove the effect of organizational culture on the indirect effect of the coronavirus pandemic on collective employee engagement. However, I have found the moderating effect of the cultural dimension of performance orientation on the indirect effect of the pandemic on collective employee engagement through high commitment work practices in supplementary analyses. This result suggests that companies with a less performance-oriented organizational culture would not be likely to use high commitment work practices extensively after the pandemic and would not be able to improve employee engagement with rarely used high commitment work practices. Thus, this result may suggest that the conditional indirect effect can be moderated by organizational culture. I also found in additional supplementary analyses that the indirect effect of the pandemic on collective employee engagement through flexible work arrangements after the pandemic is larger for Singapore than for Japan and

smaller for Australia than for Japan. These results suggest that societal, not organizational, culture can moderate the indirect effect of the pandemic on collective employee engagement after the pandemic. These supplementary analyses suggest that the effects of high performance work practices on collective employee engagement can be moderated by organizational and societal culture and differ depending on different organizations and societies.

Limitations and future directions

There are several limitations to this research. My research was conducted based on a retrospective design by asking respondents to recall and evaluate management practices before the pandemic as well as to assess current management practices after the pandemic. Wright, Gardner, and Moynihan (2003) argued that it is problematic for a researcher to measure management practices by asking respondents to recall management practices existing at different points from one to three years previously. I asked respondents to evaluate management practices before the pandemic (less than a year previously) as I supposed they were fresh in their memory. Nevertheless, the results should be read with caution.

Second, I did not collect data from nations that had been hit hard by the pandemic and had seen unemployment skyrocket. Instead, I collected data from Japan, Singapore, and Australia, three nations that had not been hit as hard by the pandemic as many other nations when I started conducting my survey. I supposed that I could collect much data from managers who were still employed in those nations. The results of my research might have been different if I had analyzed data from countries hit harder by the pandemic.

Third, I analyzed data only from managerial employees and discussed the statistical results based on their managerial perspectives. I collected data from managerial employees as I supposed that managerial employees were more knowledgeable and reliable about

management practices than non-managerial employees. However, I would have conducted more interesting analyses if I had collected data from non-managerial as well as managerial employees.

Fourth, and relatedly, my data collection method may have caused the statistical problem of common method variance (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003) since managers were asked to respond to both the mediator (high performance work practices) and the dependent (collective employee engagement) variables. Readers thus need to interpret the statistical results with caution. Having said that, this research has confirmed the impact of the coronavirus pandemic on high performance work practices and the resulting collective employee engagement in different national and cultural contexts.

Overcoming these limitations provides possible directions for future research. One future research direction would be to collect data from more countries, including not only Asia-Pacific countries but also Western ones, and to estimate the cross-cultural effects on the use of high performance work practices and the resulting employee engagement in the pre- and post-coronavirus eras.

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Table 1

Means, standard deviations, correlations, and reliabilities [a], [b]

Variables	Mean	s.d.	1	2	3	4	5
1 The pandemic (the eras of pre- and post-rcoronavirus)	0.50	0.50					
2 High commitment work practices	3.31	0.76	.09*	(.78)			
3 Flexible work arrangements	2.97	1.14	-.18**	.42**	(.73)		
4 Collective employee engagement	3.46	0.86	.05	.70**	.37**	(.88)	
5 Organizational culture: collectivism versus individualism	3.51	0.79	.01	.64**	.34**	.75**	(.82)

[a] Internal consistency reliability coefficients (Cronbach's α) appear on the diagonal.

[b] Eleven, industrial dummies are excluded.

Observations: 652

$^{+}p < .10$

$^{*}p < .05$

$^{**}p < .01$

Table 2

Organizational culture and nations [a]

Organizational culture	Japan		Singapore		Australia		
	M	*SD*	*M*	*SD*	*M*	*SD*	*F* (2, 649)
Collectivism versus individualism	3.23	0.69	3.57	0.88	3.71	0.71	20.94**
Egalitarianism	3.16	0.73	3.33	0.90	3.57	0.81	13.29**
Performance orientation	3.10	0.68	3.47	0.88	3.63	0.79	24.24**

[a] Observations for Japan, Singapore, and Australis are 204, 228, and 220, respectively. Each respondent evaluated each of the cultural items for the eras of pre- and post-coronavirus. Thus, the total number of respondents is half the total observations, that is to say, 326.

+ $p < .10$

* $p < .05$

** $p < .01$

Table 3

Summary of indirect effects [a, b, c]

Model	The total effect (*c*) of the independent variable on the dependent variable	The direct effect (*c′*) of the independent variable on the dependent variable	The effect (*a*) of the independent variable on the mediator	The effect (*b*) of the mediator on the dependent variable	The indirect effect of the independent variable on the dependent variable (*a*b*) and its 95%
Model 1: mediator variable: high commitment work practices	0.09	0.01	0.15*	0.75**	0.11: 0.026 to 0.205
Model 2: mediator variable: flexible work arrangements	0.09	0.01	-0.41**	0.08**	-0.03: -0.065 to -0.010

[a] Dependent variable: collective employee engagement

[b] Independent variable: the coronavirus pandemic. The era before the outbreak is coded as 1. The era after the outbreak is coded as 0.

[c] The total effect : $c=c'+a*b$

Observations: 652

+ $p < .10$

* $p < .05$

** $p < .01$

Table 4

Summary of conditional indirect effects [a, b, c]

Model	The effect (a) of the independent variable on the mediator	The direct effect (c') of the independent variable on the dependent variable	The effect (b_1) of the mediator on the dependent variable	The interactive effect (b_3) between the mediator variable and the moderator on the mediator	The index of moderated mediation (ab_3) and its 95% bootstrap confidence interval	The level (W) of the moderator	The conditional indirect effect of the independent variable on the dependent variable $ab_1 + ab_3W$ and its 95% bootstrap confidence interval
Model 1: mediator variable: high commitment work practices	0.15*	0.041	0.26*	0.04	0.00 : -0.00 to 0.02	High (collectivist)	0.06: 0.01 to 0.11
						Low (individualist)	0.06: 0.01 to 0.11
Model 2: mediator variable: flexible work arrangements	-0.41**	0.041	0.19*	-0.04+	0.01 : -0.00 to 0.04	High (collectivist)	-0.00: -0.03 to 0.01
						Low (individualist)	-0.03: -0.06 to -0.00

[a] Dependent variable: collective employee engagement

[b] Independent variable: the coronavirus pandemic. The era before the outbreak is coded as 1. The era after the outbreak is coded as 0.

[c] Moderator variable (W): collectivism versus individualism. W values are the 16th and 84th percentiles (3.0 and 4.3, respectively).

Observations: 652

+ $p < .10$

* $p < .05$

** $p < .01$

Table 5

Supplementary analyses: summary of conditional indirect effect [a, b, c]

Model	The effect (a) of the independent variable on the mediator	The direct effect (c') of the independent variable on the dependent variable	The effect (b_1) of the mediator on the dependent variable	The interactive effect (b_3) between the mediator variable and the moderator on the mediator	The index of moderated mediation (ab_3) and its 95% bootstrap confidence interval	The level (W) of the moderator	The conditional indirect effect of the independent variable on the dependent variable $ab_1 + ab_3W$ and its 95% bootstrap confidence interval
Model 1. Mediator variable: high commitment work practices. W=performance orientation	0.15*	0.041	0.75**	-0.08**	-0.01: -0.03 to -0.00	High (more performance-oriented)	0.05: 0.01 to 0.11
						Low (less performance-oriented)	0.07: 0.01 to 0.14
Model 2. Mediator variable: flexible work arrangements. W=country dummy: Australia=1, Japan=0.	0.15*	0.018	0.11**	-0.13**	0.05: 0.01 to 0.11	Country=Australia	0.0094: -0.03 to 0.05
Model 3. Mediator variable: flexible work arrangements. W=country dummy: Singapore=1, Japan=0.	0.15*	0.025	0.03	0.13**	-0.05: -0.11 to -0.01	Country=Singapore	-0.072: -0.12 to -0.03

[a] Independent variable: the coronavirus pandemic. The period before the outbreak is coded as 1. The period after the outbreak is coded as 0.

[b] W (performance orientation) values are the 16th and 84th percentiles (2.6 and 4.3, respectively).

Observations: 652

+ $p < .10$

* $p < .05$

** $p < .01$

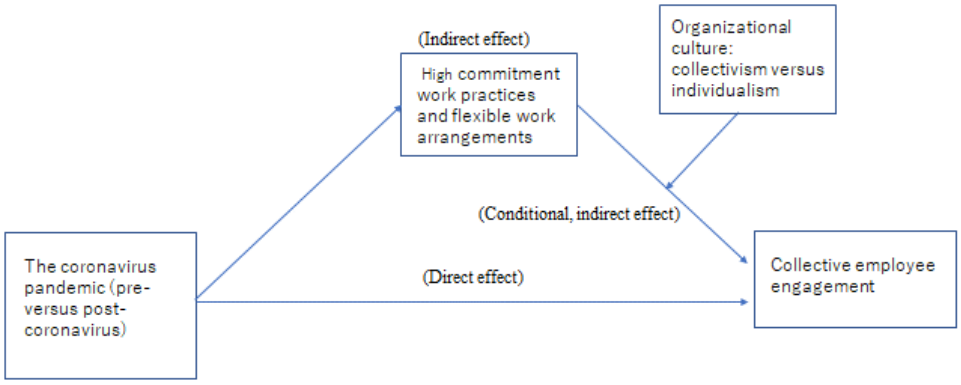

Figure 1 *The conceptual model*

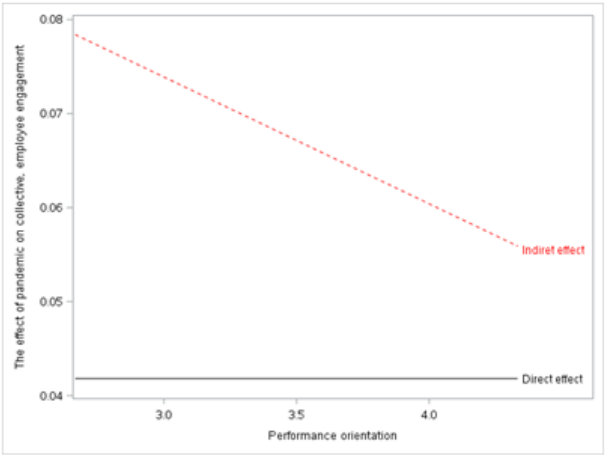

Figure 2 *A visual representation in regard to the indirect effect of the pandemic on collective employee engagement through high commitment work practices as a function of collectivism versus individualism, along with its direct effect*

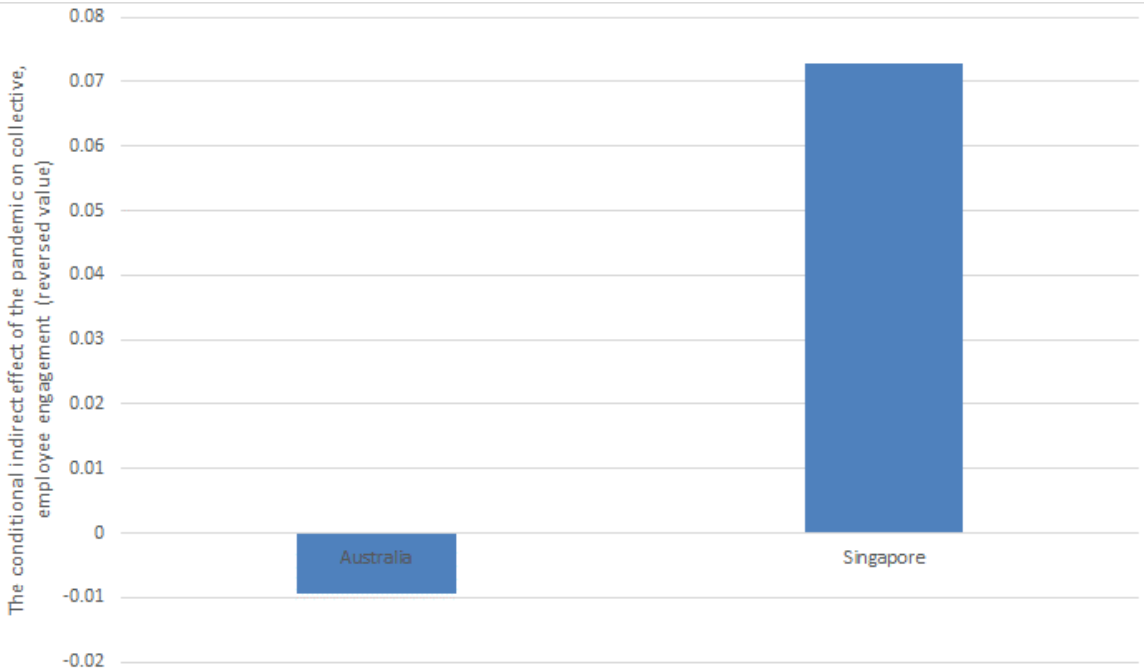

Figure 3 A difference in the effect of flexible work arrangements on collective employee engagement after the pandemic between countries (The reference nation is Japan, coded as the value of zero).

The Conceptualization of "Reading the Air" (Kuuki-Wo-Yomu) in Japanese Organization: A Qualitative Study

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The Conceptualization of "Reading the Air" (*Kuuki-Wo-Yomu*) in Japanese Organization: A Qualitative Study

ABSTRACT

Building on the notion of contextualization in management studies, the present study intends to conceptualize the phenomenon of *kuuki-wo-yomu* (KWY). Literally meaning "reading the air," KWY concerns attitudinal and behavioral patterns that individuals show in Japanese social groups. Most Japanese companies appreciate future and current employees to have KWY capability. Noting the practical importance and theoretical urgency of KWY in terms of explaining and predicting people behaviors in Japan, this study clarifies the conceptual meaning and structure of KWY. A two-stage survey was conducted and the finding from analysis shows that KWY is comprised of three subdimensions: 1) perception, comprising awareness of others' feelings, group context, and social context; 2) attitude, comprising cooperation, proactivity, and responsibility; and 3) behavior, comprising flexibility, consideration, conformity, and maintaining harmony. This first and novel approach has theoretical implications and is hoped to foster follow-up studies to develop Japan-grounded management theory.

Keywords

contextualization, reading the air (*kuuki-wo-yomu*), Japan, qualitative methods

INTRODUCTION

Human behavior in an organizational context is an important management area that has been actively studied since the 1990s. Most management research have taken a "one-size-fits-all" approach by pursuing theory building and its generalizability, but this remains context ignored in organizational behavior research (Griffin, 2007; Johns, 2006). As lamented by Johns, the recipient of the 2016 AMR Decade Award, organizational behavior studies have progressed under the context-free circumstances without incorporating context into the phenomena under investigation (2006). Context refers to "stimuli and phenomena that surround and thus exist in the environment external to the individual, most often at a different level of analysis" (Mowday & Sutton, 1993: 198). Obviously, context as a stimulus influences organizational behavior, affecting its occurrence and meaning, and also interacts with other personal and functional variables (Johns, 2006). Given this significant impact, context should be recognized and incorporated into the study of organizational behavior (Griffin, 2007; Härtel & O'Connor, 2014; Johns, 2006).

Context has received attention in the various disciplines of management studies (Barkema, Chen, George, Luo, & Tsui, 2015; Härtel & O'Connor, 2014; Rousseau & Fried, 2001). The consideration of context was fueled by societal change and increasing variety of research. The societal changes currently underway – economic integration and the shifts in economic power caused by globalization, rapid technological innovation, and social connectivity empowered by digital transformation – are drastic and complex with high uncertainty and ambiguity, which consequently raises the fundamental question of the validity and applicability of Western-grounded management concepts and theoretical models (Barkema et al., 2015; Chuang, Hsu, Wang, & Judge, 2015). Rousseau and Fried (2001) highlighted the importance of contextualizing research, calling for more in an editorial in the *Journal of Organizational Behavior.* They characterized contextualization as "linking observations to a set of relevant facts, events, or points of view that make possible research and theory that form part of a larger whole" (Rousseau & Fried, 2001: 1). They argued that contextualization in the study of organizational behavior is particularly important for understanding contemporary human behaviors since research has extended to encompass globalized and diversified working environments. Härtel and O'Connor (2014) advocated the approach of contextualizing study

by highlighting its capability to elucidate the effects of variables, the relationships between variables, and processes, which should provide comprehensive insights into organizational phenomena. In a similar vein, it is necessary to develop new concepts and theory emerging from context, work that can contribute to improving the validity and relevance of findings (Barkema et al., 2015). As such, contextualization enhances understanding on phenomena and strengthens the validity of the findings on phenomena related to organizational behavior and thus should be a focus of management research.

Contextualization should start with the conceptualization of a phenomenon (Rousseau & Fried, 2001). Building on the notion of contextualization, the present study intends to conceptualize the phenomenon of *kuuki-wo-yomu* (KWY). This term, literally meaning "reading the air," refers to attitudinal and behavioral patterns that individuals show in Japanese social groups. KWY is a desired capacity in Japanese society that competent individuals should possess (Lau, Wang, Fung, & Namikoshi, 2014). It is reported that most Japanese companies appreciate KWY more even than academic achievements or technical skills when recruiting talents (Nihon Keizai Shimbun, 2019). In addition, it is presumed that KWY is required not only in the recruitment stage, but also in the working environment, to work effectively and further contribute to achieving organizational goals. As such, given its potential practical importance, KWY should be explored in detail to capture its fundamental nature.

Despite KWY's expected importance to understanding organizational behaviors in Japan, surprisingly, no attempt has yet been made to clarify and conceptualize it. Noting this dearth in management research in Japan, the present study takes a systemic approach to conceptualize KWY. Building on the notion of contextualization, the study deeply analyzes and describes Japanese cultural and organizational contexts where KWY features in order to define it. This study is hoped to extend our understanding of organizational behaviors in Japan.

LITERATURE REIVEW AND RESEARCH BACKGROUND

Kuuki-wo-yomu translates directly into English as "reading the air." However, the literature does not use this literal translation. For example, one study defines KWY as "sensing or feeling the atmosphere" (Daniels, 2015: 51). Another defines it as "reading the mood or understanding what is

going on in a given situation" (Kimura, 2010: 209). As is clear from these definitions, KWY does not refer to the mere material existence of "air," but rather to understanding and following the *kuuki* that represents the dominant values and norms in a given situation.

KWY is very important in social interactions in Japan. Various discourses in Japan thus refer to KWY in connection with all kinds of subjects. For example, a news release reported that Japanese companies tend to focus on KWY abilities rather than skills and academic achievement (e.g., GPA scores) when evaluating new graduates in the recruiting process (Nihon Keizai Shimbun, 2019). In addition, KWY has great influence in relationships. One study has pointed out that in a friendship group, people who lack KWY are more likely to be subject to social sanctions such as being ignored, criticized, and mocked (Koiwa, Komatsu, & Wakashima, 2020). Moreover, in the field of artificial intelligence (AI), too, which has been developing rapidly in recent years, there has been laboratory work developing AI with KWY capabilities (Ogawa, 2020). From the various discourses cited above, it is clear that KWY is an important concept for understanding various phenomena in Japanese society.

However, even though KWY is extremely important for social activities in Japan, *kuuki* is a very vague concept to grasp. Regarding its characteristics, Kimura (2010: 210) pointed out that *kuuki* (1) is generated or composed intersubjectively, and (2) is constantly changing through people's constant negotiations. Because of these characteristics, it is difficult to explicitly define the *kuuki* that directs our actions (Hidaka & Kosugi, 2012: 143). Yamamoto (1983: 23), who was the first to study *kuuki* in Japan, also notes that "it is called 'Kuuki' (air) because it cannot be explained by a series of logical steps." It is interesting to note that even if *kuuki* is invisible and cannot be explained by a logical process, people have to capture it and be capable of KWY in Japan for their social and organizational life. This observation suggests why this study focuses on people and their perception of KWY to capture its meaning clearly.

JAPANESE CULTURURAL NORMS AND *KUUKI-WO-YOMU* (KWY)

As many studies have highlighted, Japan has idiosyncratic cultural norms originating in a long historical tradition. Throughout history, Japan has been an ethnically and religiously homogeneous society characterized by cultural and linguistic uniqueness (Ralston, Holt, Terpstra, &

Kai-Cheng, 2008). Japanese cultural values have been identified as consisting of relatively high orientation toward collectivism, masculinity, verticality, and uncertainty avoidance (Gudykunst & Nishida, 2001; Hofstede, 2001). These cultural values and norms are shared by members of Japanese society. Sometimes, they are not explicit enough even for Japanese people to capture. However, the almost uniformed sharing of cultural norms and values among Japanese is possible because of its strong culture which regulates and also guides people's behaviors.

Collectivism

As is well-documented in the literature (Hofstede, 1984; Oyserman, Coon, & Kemmelmeier, 2002), collectivism is an important feature of Japanese culture. In contrast to individualistic countries, in collectivistic countries like Japan individuals are closely related to and interdependent upon each other. Since achieving group goals and benefits are important in collectivistic societies, individuals are expected to cooperate to gain force and achieve collective goals. Sense of belonging and group affiliation ("Where am I affiliated with?") is highly valued in Japan, so individuals willingly sacrifice their own resources and the values they pursue to achieve collective goals and benefits (Caudill, 1973; Nakane, 1972). Because people in Japan identify themselves with groups, they perceive group success as their own success. Therefore, behaving properly within a group to sustain and develop a group with which individuals are affiliated has significant value among Japanese.

Japanese people tend to show the "right attitudes and behaviors" (i.e., KWY) reflecting socially accepted norms among their group's members (Komiya & Tudor, 2016). As a member of a group, individuals feel obliged to understand and abide by both the implicit and explicit norms shared by all members. This group identity often leads to a clear distinction between in-group and out-group typology whereby in-group members receive preferential treatment while out-group members are treated indifferently or even discriminated against (Napier & Taylor, 1995). This collective thinking may divide people into in- and out-groups depending on the level of capability in KWY, which would make KWY an essential ability for an individual to be accepted as a member of a group, team, or organization in Japan.

Confucianism and Harmony

Harmony is one of the most critical values in Confucian countries, including Japan, Korea, and China (Chin, Shi, Rowley, & Meng, 2020). In a Confucian culture people tend to avoid conflict among team/group members while they pursue common goals (Chen & Chung, 1994). In Japanese organizations, managers attempt to maintain *wa*, a spirit of unity, based on their strong belief that organizational goals should be pursued in an appropriate manner without conflict (Alston, 1989). Also in Japan, a well-known decision-making process is the *ringi* system through which all the parties affected by a decision are consulted together to reach a consensus (Brake, Walker, & Walker, 1995). This method makes it easy to reach intra-group consensus and thus helps avoid confrontations. Salk and Brannen (2000) reported that in order to strengthen harmonious relationships, Japanese managers spend much time interacting with employees informally during and after work (*nomikai*). Harmonious consensus is maintained in formal sessions and agreements among participants are usually pursued by informal negotiation, so-called *nemawashi*, in an indirect way. In general, Japanese people accept the social order and social harmony. Ohbuchi (1998) pointed out that Japanese believe that harmony is more important than fairness.

Confucianism also influences the hierarchical structuring of the social order in Japan, which creates high power distance, "the extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed unequally" (Hofstede, 1991: 28). Power entails "influencing and controlling others," and "liberty of action" (Mondillon, Niedenthal, Brauer, Rohmann, Dalle, & Uchida, 2005). So, it is important to understand power and its dynamics to comprehend people's cognitive processes and behaviors as well. In Japan, power is hierarchically distributed and the few who are at the top exert the power. Japan's Confucian culture and valuing of harmony lead individuals to recognize the social order and power dynamics in organizations and conform to the group norms and rules to maintain harmony. Therefore, in Japan's Confucian society, KWY is required to maintain harmony among the members of a team, group, or organization.

KWY IN JAPANESE ORGANIZATIONS

Japanese Organizational Culture and Management Styles

The so-called "three pillars" Japanese management style has long been characterized as centering on long-term employment, a seniority-based system of pay and promotion, and enterprise labor unions (Aoki, Delbridge, & Endo, 2014). In addition, horizontal communication, unanimity at the meeting within the company and person-oriented superior–subordinate relationships have long been seen as distinctive Japanese managerial practices (Carr & Pudelko, 2006; Peltokorpi, 2013). In fact, even after the collapse of the economic bubble, many Japanese companies still adhere to traditional management style, particularly human resource management practices, including long-term employment and seniority-based compensation (e.g., Morris, Hassard, Delbridge, & Endo, 2019; Sekiguchi, Froese, & Iguchi, 2016). Morris et al. (2019) reported that traditional management policies remain in place in large Japanese firms although some large companies have been attempting to introduce hybrid, neo-bureaucratic forms of operation, with modifications to established business practices. The long-term employment and seniority payment systems maintained in many Japanese companies make it difficult for employees to change jobs and move to other employers and thus offer strong incentives to conform to shared organizational rules adhered to by majority of organizational members. This stability of Japanese management practices tends to increase the importance of KWY ability.

The uniqueness of Japanese management style, particularly human resource management practices, reflects the national culture characterized as collectivistic, Confucian, and harmony-oriented (Sekiguchi et al., 2016). The Japanese management style has granted Japanese firms a stable and flexible workforce in which employees are multiskilled and flexible in the face of job assignment changes, which led to the Japanese miracle (Johnson, 1982; Endo, Delbridge, & Morris, 2015). For example, the long-term employment practice enables individuals to develop a high level of firm-specific knowledge and know-how (Peltokorpi, 2013). Furthermore, this knowledge and know-how, particularly tacit knowledge, accumulates in the organization to become a source of competitive advantage (Nonaka, Toyama, & Nagata, 2000). On the other hand, it should be noted that because of the high-context culture, management responsibilities and knowledge and job roles are not clearly

defined, and there are many unwritten rules in Japanese firms (Yasumuro, 1982; Peltokorpi, 2013). Employees with low KWY ability may therefore be unaware of tacit knowledge shared by their supervisors and colleagues. Sekiguchi et al. (2016: 86) pointed out that "only employees who have internalized the firm-specific knowledge and know-how can oversee and control Japanese organizations". Employees who are less aware of these subtleties cannot function effectively in Japanese firms and are thus prevented from joining managerial ranks. Hence, in a Japanese organization with a high-context culture, KWY is one of the most important abilities for employees, enabling them to obtain organization-specific knowledge, which is essential to carry out their tasks effectively and to obtain career advancement.

KWY IN EXISTING STUDIES

As indicated in the statement of motivation for this study, very little academic research deals with KWY. This trend holds regardless of the language of the literature (i.e., Japanese or other). However, a few studies have attempted to describe the characteristics of persons with KWY. For example, Lau et al. (2014: 853–854) explain *kuuki ga yomenai*, the opposite of KWY, as describing someone "who lacks the skill to interpret and respond to social cues." In addition, Daniels (2015: 51) describes KWY, based on interviewees' responses, as being "capable of adapting to a certain setting." These definitions indicate that KWY is the ability to interpret and adapt to a particular environment in an appropriate manner. Despite their efforts to conceptualize KWY, these definitions are based on subjective evaluation and interpretation without empirical evidence, and so lack validity. Exceptionally, Hidaka and Kosugi (2012) tested KWY in a quantitative way to define "air." They empirically examined Japanese expressions similar to KWY and identified "take care" (*ki wo kubaru*), "cooperate" (*kyouchou suru*), "endure" (*gaman suru*), and "compromise" (*dakyou suru*). In addition, Oishi (2011) conducted an empirical study to identify the characteristics of *kuuki ga yomenai*: factors such as deviation from the norm, self-centeredness, lack of consideration for others, deviation from the atmosphere, and lack of cooperation were extracted from a questionnaire survey of university students as characteristics of individuals with *kuuki ga yomenai* in friendship-related situations. Hidaka and Kosugi (2012) and Oishi (2011) reported similar attributes that constituting KWY: 'cooperation with

other' and 'conformity to norms'. Therefore, one can infer that these factors are important characteristics of individuals with a high level of KWY.

Even if empirical studies give some insights to help understand KWY, it should be noted that they used samples of students whose KWY experiences are limited to a certain context. Considering the importance of KWY in organizational life, an empirical study should be conducted with employees to capture its clear meaning in the organizational context.

THE CONCEPTUALIZATION OF KWY

The current research employs a discovery-oriented approach, which allows for the capture of important facets and meanings of KWY and its conceptualization (Geer, 1991; Brinsfield, 2013). In order to clarify the meaning of KWY in the workplace, we conducted a two-stage open-ended survey targeting regular employees working in private Japanese companies. In the first survey, we asked for definitions of KWY*omu* (i.e., "reading the air") and KWY*omenai* (i.e., "unable to read the air") in the workplace. In the second survey, we asked respondents to share accounts of episodes in which they had problems with supervisors, coworkers, or subordinates who are unable to "read the air."

Samples and Data Collection

We collected a data set of 277 samples from the lists provided by a professional web research company. Since the purpose of this study is to uncover the meaning of KWY in the Japanese workplace, the unemployed, the self-employed, and civil servants were excluded from the data analysis. As shown in Table 1, the 158 respondents who were working in the private sector as regular employees at the time of the survey are the final subjects of analysis. Of these 158 respondents, 44 percent were male. Respondents reported an average age of 39 years.

Table 1 goes about here

Results

The respondents (N = 158) provided three open-ended responses (definitions of KWY*omu* [i.e., "reading the air"] and KWY*omenai* [i.e., "unable to read the air"]) and KWY-related episodes. Three researchers independently evaluated these responses for commonalities and differences in the groupings. Each researcher examined each response from the survey participants and identified keywords that represent KWY and its opposite, the inability to read the air. The findings of each researcher were cross-checked to ascertain their validity. The results indicated that KWY was described by 36 keywords that related to individual perceptual, attitudinal, and behavioral attributes (Appendix A). The keywords were analyzed in terms of their attributes and correlations with other associated keywords and grouped together. This process identified dimensions and ten subdimensions of KWY. From this process, a consensus emerged that three broader dimensions and ten subdimensions of KWY (Table 2) captured respondents' descriptions of what KWY means in the workplace and which behaviors and remarks of coworkers/supervisors/subordinates in the workplace are perceived as KWY*omu* or KWY*omenai*.

Perceptions. KWY includes perceptions of people about their surroundings. The responses show that surroundings in the organizational environment consist of their colleagues, supervisors, and group norms and rules, and also the overall structure of organization. People capable in KWY properly aware of how the place where they are is structured, how the subjects consisting of the place are interacted with, and what explicit and implicit rules or norms they have to follow, and what attitudes or behaviors are desired to them in the place. They perceive those by observing, being aware of, and thinking about the surroundings. From the finding, we found three subdimensions of KWY perceptions: "awareness of others' feelings," "awareness of group/team/organizational context (norms, rules)," and "awareness of social context-appropriate behavior." In describing what KWY means in the workplace, respondents highlighted the importance of being aware of others' thoughts through their attitudes, moods, and words and likewise the thoughts of upper management. In addition, respondents pointed out the importance of determining the right time to speak up and when to remain quiet. Here are some sample responses:

"When a colleague asked a stupid question while the boss was in a bad mood, the whole office froze."

"I was surprised when my boss suddenly brought up an unrelated topic about his personal life while we were all talking and thinking seriously during an important meeting. Maybe he was trying to make us feel at ease, but the atmosphere was not like that."

"When a subordinate made a private call on the company phone in front of a visitor at work. I was disappointed that I had to tell him not to do that."

Attitudes. KWY includes attitudes that are directed to the surroundings. The attitudes are matched with the perception on the surroundings. The attitudinal attributes consist of the three dimensions: subdimensions"cooperativity," "proactivity," and "responsibility." Respondents described KWY attitudes as being cooperative and acting proactively and responsibly. They described why their supervisors, coworkers, or subordinates were unable to read the air:

"There was a person who kept talking about unimportant things endlessly when everyone was busy, not realizing that he was interfering with people's work, and I was surprised to find that some people really can't read the air."

"In a company where the corporate culture is to work on your own, I felt that the junior staff member who just stood around waiting for instructions was a person who could not read the atmosphere."

"When I had to go to work on my day off due to a business problem, the supervisor who was in charge of the problem insisted on working on personal business. I was stunned by his lack of sense of responsibility."

Behaviors. KWY includes behaviors that fit the perceived needs and expectations from the surroundings. People high in KWY know how to behave in the organization. They flexibly respond and properly behave to the changes in their work, relationships with people, and organizational norms. Also, they show considerate behaviors that care others and surroundings, and display conforming behaviors to sustain harmony. Thus, four subdimensions of KWY behaviors were revealed:

"flexibility," "consideration," "conformity," and "maintaining harmony." Respondents defined KWY as the ability to be flexible, to respect the opinions of others, and to maintain harmony. In addition, they highlighted the importance of conformity:

"I happened to be out of my seat as a receptionist when a visitor came in, and a junior staff member took care of the situation. After that, I took over, but she stayed there even though she was allowed to leave the room since she was not in charge. I thought, "If that's the case, why doesn't she just leave her seat and pretend she is going to bring me a cup of tea?""

"It bothers me that my boss invites young employees to lunch without considering whether it is convenient for them. I can understand it a little, but it's painful to see that they are clearly annoyed. And yet, it's not a treat, which is impossible."

"Despite the fact that the company encourages employees to work from home, there was a colleague who spoke out in front of many people, forcing them to come to work against the company's wishes."

Table 2 goes about here

DISCUSSION

Theoretical Implications

Building on the notion of contextualization in organizational behavior studies, the present study focuses on the phenomenon of KWY, which is shared both explicitly and implicitly among people and featured in Japan. Grounded in the specific cultural and societal heritage of the Japanese context, KWY is very important in understanding individual and group behaviors, and social interactions in Japan. Noting its practical importance and theoretical implications for explaining and predicting people's behaviors in Japan, this study has provided insights that clarify the conceptual meaning and structure of KWY. The two-stage survey with employees working for Japanese companies shows that they all comprehend the meaning of KWY and perceive it positively as a skill or capability that is required for organizational life. Their survey responses showed that KWY is

comprised of the three subdimensions of perception, attitude, and behavior. In specific, perception refers to recognizing and awareness of surroundings which consist of people, norms and rules, and implicit social context. Attitude refers to cooperative, proactive, and responsible attributes that people pertain to. Also, behaviors are composed of flexibility, consideration, conformity, and maintaining harmony.

The present study has theoretical implications as follows. First, focusing on the context, the study has explored the influence of context on the occurrence of KWY and clarified its conceptual meaning and structure. Context should be carefully observed and detailed to help understand people's behaviors in organizations. This is particularly true to a certain context with distinctive features and whose influence on people's behaviors is strong enough to regulate and change them. Even if a bunch of studies consistently mention that Japanese society has particular features that distinguish it from Western countries (Gudykunst & Nishida, 2001; Hofstede, 1984; Komiya & Tudor, 2016; Oyserman et al., 2002; Sekiguchi et al., 2016), there is no systematic approach that takes its context into consideration in management studies. Because of Japanese society's high-context nature and strong culture, its contextual features should be understood and detailed clearly to study human behavior-related phenomena and their interactions and relationships in Japan. The present study will help position Japan as a research context where many uncovered management concepts grounded in Japan and their relationships are found and tested. Incorporating context, this study contributes to the idea of contextualization and responds to the calls of researchers (Griffin, 2007; Johns, 2006; Rousseau & Fried, 2001).

This study proposes a novel approach to the phenomenon of KWY, which is grounded in the Japanese context and is significant to understanding people and their behaviors in Japan. Thus, by conceptualizing KWY, this study not only contributes to the management studies literature on Japan, but also enhances our understanding of management issues in cross-cultural contexts. Also, it further contributes to comprehending new and challenging many management problems and provides clues to solve them (Barkema et al., 2015).

Practical Implications

Diversity and a diversified working environment pose a challenge to human resource management. A generalized set of management practices is no longer effective, particularly in Japan. Good human resource management practices should be grounded in an understanding of the culture and people in context. This study shows how well the conceptual meaning of KWY is shared by Japanese and clearly ingrained in their cognition. Companies can use this finding when it comes to designing organizational structure and climate. Employees perceive and read the air from the components of their surroundings, such as supervisors, colleagues, explicit and implicit group norms, rules, and structure. Companies can adjust those factors and use a salient factor that should signal positively to employees and have them perform better.

The findings also have implications for foreign employers on the planning and implementation of their human resource management practices. History tells of the struggles and failures in managing people that many foreign companies have faced in Japan. The conventional globalized mindset, defined by ideas such as westernization or assimilation, may not be applicable, particularly in the area of human resource management. People are at the core of culture. So, to manage people properly, one should start by understanding culture and culture-grounded behaviors. Human resources practices devised with a complete understanding of Japanese culture and people will lead to the success and sustainability of foreign companies in Japan.

Limitation and Future Research Directions

Despite the theoretical and practical contributions identified, this study is limited in its conceptual validity and practical usability. The study was grounded in Japanese cultural features and intended to explain and validate the conceptual meaning of KWY under the specific contextual features of Japan. Due to the conceptual breadth of culture and accordingly, the lack in the typology of explaining culture (Barkema et al., 2015), it is difficult to capture all aspects of Japanese context. So, we chose the main features that are characterized of Japanese organizational context based on the literature and our insight. However, we have to confess that there might be some other contextual

features of Japan including historical, geographical, and also other political feature that can be influential to the occurrence of KWY. Therefore, future study should explore further to capture the fundamentals of Japanese context and suggest a typology that can validate the relationship between the contextual feature and KWY.

Also, to validate the conceptualization of KWY developed here, it should be linked to quantification. Such work is important to test and confirm the validity of this conceptualization. Therefore, we encourage future research to develop items of KWY based on this conceptualization and to test its validity. Even if this concept emerges from the Japanese context, concepts similar to KWY may exist in any other cultural context. Specifically, the concept of KWY is expected to be highly correlated with emotional intelligence (Salovey & Mayer,1990) and cultural intelligence (Earley & Ang, 2003), which have been popularly applied in organizational behavior research. Therefore, in the development stage of the KWY scale, it may be necessary to test its distinctiveness from emotional intelligence and cultural intelligence. In light of this consideration, future studies should delve into the literature and find associated concepts to clarify the distinctiveness and originality of the concept of KWY. This process will strengthen the validity of the concept and confirm its practical usability. It is hoped that this original study fosters follow-up context-grounded conceptualization and theory-building studies in Japan.

Conclusion

In responding to the consistent calls for studies about contextualization and the development of East-driven theory and theoretical models, the present study has conceptualized the Japan-specific phenomenon of KWY. Adopting a qualitative method, the study has explored the concept in the management area. The findings of the qualitative analysis clarify the conceptual meaning and the multifaceted structure of KWY in the Japanese work environment. This first approach offers a novel opportunity to advance understanding of Japanese organizational behavior and its relationship with context. This is its contribution to the management study literature. Future research should test and validate this conceptualization.

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TABLE 1

Sample Demographics

	N	% of total
Gender		
Female	88	55.7
Male	70	44.3
Type of job		
Clerical job	82	51.9
Technical job	39	24.7
Sales job	37	23.4
Industry		
Service	49	31.0
Manufacturing	41	25.9
Wholesale and retail	18	11.4
Construction	10	6.3
Finance	9	5.7
Others	31	19.6
Total	158	100

TABLE 2

Identified KWY in Japanese workplaces

Dimension	Subdimensions	Example Definitions of KWY Open-ended question: *"What is the definition of KWY in the workplace?"*	Example Episodes of KWY Open-ended question: *"Please share any episodes in which you had problems with your supervisor, coworkers, or subordinates not being able to read the air"*
Perception	Awareness of others' feelings (supervisor, coworker, customer, etc.)	To infer from the other person's facial expression.	"When a colleague asked a stupid question while the boss was in a bad mood, the whole office froze."
		To be aware of the other person's thoughts judging by their attitudes, moods, and words.	"There is a part-time employee who speaks in a one-sided manner and refuses to listen to others. He often gets angry or looks at me suspiciously because he has the same attitude toward people who are in a much higher position or customers, but he does not understand why he is angry."
	Awareness of group/team/organizational context (norms, rules)	To be aware of the situation and recognize what is required constantly.	"I was surprised when my boss suddenly brought up an unrelated topic about his personal life while we were all seriously discussing and thinking during an important meeting. Maybe he was trying to make us feel at ease, but the atmosphere was not like that."
		To act and speak with an awareness of the thoughts of upper management.	"The manager was very angry with the junior staff and the whole department, but when it was time to go home, the junior staff was the first one to say "I'm leaving." The manager became even angrier."
	Awareness of social context-appropriate behavior	Determine how to respond to the situation by sensing the atmosphere and situation, even if not verbalized.	"When a subordinate made a private call on the company phone in front of a visitor at work. I was disappointed that I had to tell him not to do that."
		Determine if you should speak up or if you should remain quiet.	"I had a colleague who would say things in front of patients that he shouldn't have said. It's like he can't read the air. I was troubled because it happened many times."
Attitude	Cooperativity	Be cooperative.	"There was a person who kept talking about unimportant things endlessly when everyone was busy, not realizing that he was interfering with people's work, and I was surprised to find out that some people really can't read the air."
		Act and speak with people around you in a cooperative manner.	
	Proactivity	Don't be passive, but be aware of the atmosphere of the place and work proactively to ensure that work runs smoothly.	"In a company where the corporate culture is to work on your own, I felt that the junior staff member who just stood around waiting for instructions was a person who could not read the atmosphere."
		Do not take a passive attitude.	
	Responsibility	Acting responsibly.	"My boss is a person who doesn't report, communicate, or consult, and he started talking about things that he hadn't communicated to the head of his department who came to see him once in a while, as if it was natural, and there was an awkward silence."
		Acting like an adult (working responsibly).	"When I had to go to work on my day off due to a business problem, the supervisor who was in charge of the problem insisted on working on personal business. I was stunned by his lack of sense of responsibility."

TABLE 2 (Continue)

Identified KWY in Japanese workplaces

Dimension	Subdimensions	Example Definitions of KWY	Example Episodes of KWY
		Open-ended question: *"What is the definition of KWY in the workplace?"*	Open-ended question: *"Please share any episodes in which you had problems with your supervisor, coworkers, or subordinates not being able to read the air"*
Behavior	Flexibility	To change one's actions and statements according to the mood of the moment. Respond flexibly.	"I happened to be out of my seat as a receptionist when a visitor came in, and a junior staff member took care of the situation. After that, I took over, but she stayed there even though she was allowed to leave the room since she was not in charge. I thought, "If that's the case, why doesn't she just leave her seat and pretend she is going to bring me a cup of tea?"
	Consideration	Respect for the opinions of others. Be considerate of the people around you.	"My boss basically doesn't listen to people and doesn't understand what they're saying, so we don't get along." "It bothers me that my boss invites young employees to lunch without considering whether it is convenient for them. I can understand it a little, but it's painful to see that they are clearly annoyed. And yet, it's not a treat, which is impossible."
	Conformity	To be sympathetic to other people's opinions. Do not forcefully express your thoughts or opinions about company policies set by management or instructions given by your immediate supervisor, nor argue against them, nor preach or debunk them.	"Despite the fact that the company encourages employees to work from home, there was a colleague who spoke out in front of many people, forcing them to come to work against the company's wishes."
	Maintaining harmony	Value harmony. Be careful not to disrupt the atmosphere of the company and not to break the ice with people in the workplace.	"A person who, while explaining the answer to a question in a meeting, grumpily says, "Oh, I understand, that's enough!"

APPENDIX A
Identified Keywords

Demension		Keywords	Frequency	Contents
Perception	Try to understand and focus on the surrounding around them rather than themselves and to figure out how they have to think and behave	egocentricity	16	Do not be self-centered.
		companion	15	Consider the other person's story, feelings, and thoughts.
		circumference	14	Adjusting to others, not being able to see others
		place	14	Understand the background of the situation, and sense the atmosphere of the situation.
		atmosphere	10	Value the atmosphere
		surroundings	5	Look around and be aware of your surroundings
		boss	7	Obeying the opinion and intention of the boss, Bad attitude toward the boss
		situation	6	Read and judge the situation
		overall	2	Look at the whole situation
	Be knowledgeable of common knowledge and societal common rules	senseless	2	Laughs or otherwise is insane
		order	2	Act in an orderly manner
		needless	1	Don't talk about unnecessary things
		common sense	1	Follow common sense
Attitude	Comprehend and descern the attritibutes of the context where they are involved by observing, processing, and making a decision	judge	9	Make appropriate decisions
		response	4	Able to respond
		listen	3	
		cognition	3	Understand and recognize what is expected of me
		asking	3	Aware of what is expected of them
		perceive	2	
		awareness	2	Conscious of surroundings, not self-conscious
		understanding	2	Understands intentions and context
		implicit	1	Understand implicitly
		anticipation	1	Anticipate and act accordingly
		inference	1	
		respect	1	Respectful of opinions
	Be cooperative to keep harmony	cooperation	19	Be cooperative
		harmony	3	Respecting harmony, not disturbing it
		sympathize	3	A sense of syncretism
		discord	2	Not making waves
Behavior	Properly and desirably behave with a good communication skill based on the right dicernment on the situation	action	33	Thinking and acting without thinking
		remark	29	Speaking up with timing
		job	3	Making work go smoothly
		resourcefulness	3	Resourcefulness
		communication	2	Communication skills
		work	2	Watch and work well, work proactively
		well	1	Communicate well

Global Constraints of the Galapagos Effect: Cross-Cultural Management Challenges and Opportunities for Japanese In-house Software Centres in India

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Global Constraints of the Galapagos Effect: Cross-Cultural Management Challenges and Opportunities for Japanese In-house Software Centres in India

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Abstract

India has rapidly become a global center for software development, attracting foreign direct investment in Global In-house Centers (GICs) which have evolved into innovation hubs. While Japanese MNEs have increased their investments in GICs in India, little is known about Japanese managerial practices, and how they are perceived, in the Indian software development sector. In this study we report the findings of 15 in-depth interviews of Indian employees and Japanese expatriates of Japanese GICs conducted in the greater Bangalore area of India. Results suggest that challenges revolve around two interrelated issues indicative of Japan's so-called Galapagos effect: a focus on perfecting the quality of products for the Japanese market rather than product innovation for the global market, and management practices that support such focus and limit the creation of global talent. Based on interview findings, we suggest ways in which these challenges might be transformed to opportunities, and provide future directions for research.

Keywords

Global In-house Centers, software development, innovation, India, Japanese management, Galapagos effect

INTRODUCTION

India has rapidly emerged as a global center for software development, attracting foreign direct investment in this sector. The availability of talent, cost competitiveness and willingness to learn and adapt to customer requirements and technology have been major factors contributing to the growth of the Indian software industry (Agrawal, Khatri, & Srinivasan, 2011). The Indian business process management (BPM) industry as a whole has been doing extremely well since the early 1990s and currently serves about 55 percent of the global outsourcing market. These factors have led to a large number of multinational enterprises (MNEs) starting captive in-house software centers in India. India currently has 1448 Global In-house Centers (GICs), employing 745,000 employees, with an estimated revenue of US$20 billion for the financial year 2015 (NASSCOM, 2015). Japanese MNEs have accelerated their investment in India (Buckley, Cross & Horn, 2012), and increased their investments in GICs, particularly in the automotive, software and internet, and electrical and electronics sectors. In 2015 there were 40 Japanese GICs in India, up from 24 in 2010, representing an annual growth rate of 11 percent (NASSCOM, 2015).

The entry of Japanese MNEs into the software development sector in India may be considered the most recent wave of Japan's globalization of production. It represents a longer-term trend that began in the 1980s when Japanese businesses were forced to increase their competitiveness by going global, and by identifying new strategies for succeeding in rapidly changing markets (Schaede, 2008). Japanese industries dominated the world market in the 1980s and 1990s in a large number of sectors such as automobiles, shipbuilding, steel, whitegoods and computer games (e.g., Anand & Delios, 1996). However, in the last two decades, particularly following the burst of Japan's economic bubble in 1990 and slowdown of growth of the Japanese

economy, many leading Japanese companies have lost global market share and have struggled to remain competitive in the global market (e.g., Mikitani & Mikitani, 2014). A recent study, for instance, showed that Japanese high-tech companies (Canon, Fujitsu, NFC, Panasonic and Sharp) had an average annual revenue growth of just two percent between 1999 and 2009 as compared to 17 percent for the leading global high-tech companies (Acer, Apple, HP, LG, Lenova, and Samsung) (Beyer von Morgenstern, Kenevan, & Naeher, 2011). The loss in global market share has been attributed to several factors, one of which is the so-called 'Galapagos effect' whereby high-tech products in particular have moved away from international standards and developed only for the Japanese market (e.g., Mikitani & Mikitani, 2014; Sekiguchi, 2011). A number of Japanese high-tech companies that have experienced slow revenue and profitability growth have started GICs in India.

Japanese management practices, encompassing production practices such as Total Quality Management (TQM) and HRM practices such as participative management and teamwork orientation, have long played a significant role in the success of Japanese firms by improving the quality of their products, as well as their productivity and competitiveness. Due to this success, companies in both developed and developing economies adopted many of these practices, particularly the production practices, in the '80s and '90s (Anand & Delios, 1996). It has been since argued, however, that TQM as a philosophy and as a practice provides only incremental improvements and may hold back organizations from achieving break-through innovations. This poses an important question about what is needed for Japan to succeed in today's global market for software products, a product that takes time to refine toward perfection and geared to one market or one that comes to market more quickly, and is refined in a subsequent version? Japanese HRM practices and their efficacy outside Japan have also been

questioned in light of implications for the development of a network of global talent, for instance (e.g., Pudelko, 2005; Sekiguchi, Froese, & Iguchi, 2016). According to a recent survey of Fortune 1000 executives and GIC heads in India, the evolving role of GICs is to move from being strictly a cost center to being a hub for innovation, where challenges include agility in the market and the ability to retain talent (Sheth, Singh, & Majumdar, 2017).

The objective of this study is to investigate Japanese cross-cultural management factors that might enable or detract from the growth and success of Japanese GICs in India in the software development sector. Cross-cultural challenges of Japanese businesses in the US and Europe (e.g., Kopp, 1994) and more recently in China (e.g., Lee, Yoshikawa, & Reade, 2011; Yu & Meyer-Ohle, 2008) have been documented. Less is known about Japanese management in India (Basu & Yoshida, 2012; Maharjan & Sekiguchi, 2016, 2017). To our knowledge, this is the first study to examine Japanese management in GICs in India focused on the software industry. This study is therefore exploratory and utilizes a qualitative approach. Data are gathered from in-depth interviews on the perceptions of Indian employees and Japanese expatriates working for Japanese GICs in the software development sector in India. The study is expected to be of value to both scholars and practitioners since India is a growing investment destination for Japanese businesses, consistently ranked first or second place over the past few years by Japanese companies for a promising investment destination over the medium term (JBIC, 2016, 2019). The study may also provide valuable insights about the factors which have adversely affected the growth of the high-tech industry in Japan for the last two decades.

The paper proceeds with a literature review on culture and management, with a specific focus on Japanese management and Indian HRM issues in the software development industry.

This is followed by the research methodology, and the findings of the study. The paper concludes with implications for research and practice.

CULTURE AND MANAGEMENT

Culture defines an individual's values, attitudes, and behavior (Adler, 2008). Thus, culture influences various aspects of organizational life, such as team performance (Earley & Mosakowski, 2000), reward systems (Schuler & Rogovski, 1998), and leadership effectiveness (Dickson et al., 2003). People across cultures hold different values regarding uncertainty, authority, and identity (Hofstede, 1980); rules and relationships (Trompenaars & Hampden-Turner, 2010); and communication (Hall & Hall, 1990). This has significant implications for the operation of MNEs and the way people are managed in overseas locations.

When expatriate managers are posted to foreign subsidiaries, they are often placed in a leadership role with the responsibility not only to manage the business but also to manage people. Leadership is an ability to influence others (Den Hartog & Dickson, 2004), and its effectiveness depends upon subordinates' perceptions and expectations (Kahai, Sosik, & Avolio, 2011). The early work of Hofstede (1980) that introduces four primary cultural dimensions provides insights. For instance, in high uncertainty avoidance cultures, careful planning, reliability, and punctuality are important attributes of successful managers, while in low uncertainty avoidance cultures, resourcefulness, improvisation, and flexibility are more valued. In high power distance cultures, people tend to accept directive leadership (Dorfman & Howell, 1988), and communication tends to be top-down (Javidan & House, 2001). By contrast, people in low power distance cultures tend to expect participative leadership (Dorfman et al., 2004), in which leaders consult subordinates before making decisions. In collectivist cultures, there is a

tendency to place collective goals ahead of self-interest, while in individualist cultures value is placed on the pursuit of self-interest (Jung et al., 1995), which has a bearing on work motivation.

Conventional wisdom posits that cultural closeness between two countries, as measured by differences in scores on Hofstede's cultural dimensions, for instance, contributes to smoother interactions between people from the two cultures because they share similar values. Drawing on the above examples, for instance, two cultures that score relatively highly on uncertainty avoidance would likely share a predilection toward punctuality and careful planning. Japan and India, the two countries under study, are both characterized by high collectivism, high power distance and long-term orientation (Hofstede et al., 2010). This suggests that expatriates from Japan should have a relatively easy time to adjust and manage in India. That is, individuals in both cultures are likely to accept directive leadership and top-down communication, and to place collective goals over self-interested goals.

Much of the work on cultural differences with regard to Asia has taken place using comparisons of East and West, e.g. between Japan and the USA, or between China and the UK. While the Hofstede cultural dimensions suggest cultural closeness between many Asian countries, relatively little work has been done on assessing cultural differences between culturally close Asian countries and the implications for management. Some studies have shown that cultural closeness does not necessarily guarantee a lack of challenges in managing people or understanding the intricacies of the business environment (e.g., Selmer, 2007). For instance, a study by Lee, Yoshikawa and Reade (2018) found that Japanese expatriates in China faced challenges regarding communication and understanding the local business and institutional context, despite both countries sharing high-context, collectivist cultures.

The focus of our study is to investigate cross-cultural management issues in Japanese GICs in India, specifically in the software development sector. Studies on Japanese management and HRM in India are rare (Basu & Yoshida, 2012; Maharjan & Sekiguchi, 2016, 2017), and none to our knowledge considers the specific context of captive software development centers. The following provides an overview of Japanese management abroad and in India.

Japanese Management at Home and Abroad

Following World War II, the Japanese economy grew exponentially. Japanese MNEs, particularly large manufacturing firms, were successful in Japan's domestic market and internationally until the burst of Japan's economic bubble in the early 1990s. Japanese management, including Japanese production principles such as TQM and Japanese-style HRM were studied by international academics because they were considered to be the key to the competitive advantage of Japanese MNEs. Japanese-style HRM is characterized by long-term employment, seniority-based compensation and promotion, enterprise-based unions, and teamwork orientation (Haghirian, 2016a; Lee, Iijima, & Reade, 2011; Sekiguchi, Froese, & Iguchi, 2016). Over the years, Japanese production and HR practices have been transferred by Japanese MNEs to their foreign subsidiaries with mixed success.

As noted by Sekiguchi et al (2016), while Japanese MNEs have been successful in the internationalization of production and operations management, such as TQM, they have not been as successful in the internationalization of HRM. Many Japanese MNEs continue to follow an ethnocentric management style, where Japanese managers hold the top management positions and non-Japanese are relegated to support staff without possibilities to develop their career. Such

exclusionary practice, together with traditional Japanese HR practices that do not fit local expectations, are considered to be a primary reason for the difficulty of Japanese MNEs to attract and retain global talent (Kopp, 1994; Froese and Kishi, 2013).

Other Japanese management-related issues that have been identified in a cross-cultural context are communication and decision making. Japan is considered to be a high-context society with indirect communication (Hall & Hall, 1990). In Japan, managers expect that employees will automatically understand what is required in any situation without being told what to do. An expression in Japan, 'a good subordinate knows ten by hearing one,' underscores that employees act on few cues (Yoshimura & Anderson, 1998). Such implicit understanding does not always translate to work environments outside Japan, and employees at Japanese subsidiaries can be frustrated, not knowing what is expected of them, even in cultural contexts that share similar cultural values (e.g., Lee, Yoshikawa, & Reade, 2018).

Decision making in Japanese companies follow the ringi system, where the decision-making process involves many layers of consultation throughout the organization (Haghirian, 2016b). It is said that the decision making process is slow in a Japanese organization, but that the implementation once everyone is on board is relatively fast. The relatively slow process of decision making, together with the practice of Japanese expatriates checking with HQ before making a decision which further delays action, has sometimes led to frustration among subordinates in overseas subsidiaries, even those in contexts with similar cultural values (e.g., Lee, Yoshikawa, & Reade, 2018).

In sum, the cross-cultural issues that have generally come to the fore are concerned with differences in management style, decision making, communications, and work expectations.

These differences have sometimes led to misunderstanding and conflict. Further, Japanese firms have been identified as following a relatively ethnocentric approach to staffing, compared to US and European multinational corporations, which has sometimes resulted in employee demotivation and turnover.

Japanese Management in India

Maharjan and Sekiguchi (2016) suggest that while Indian companies have been influenced by US and other Western management practices, India is culturally closer to Japan and thus Japanese management and HRM practices may be more effective in the Indian context. As noted earlier, Indian and Japanese cultures are both characterized by high collectivism, high power distance and long-term orientation (Hofstede et al., 2010). Maharjan and Sekiguchi (2016) further note that management in both India and Japan is infused with the importance of human relationships (e.g., Ramamoorthy, Kulkani, Gupta, & Flood, 2007) and, like the Japanese, Indians value respect, effort and dedication more than the abilities of the employees (e.g., Budhwar & Khatri, 2001). In a subsequent study that featured interviews of both Indian employees and Japanese expatriates, Maharjan and Sekiguchi (2017) found that Indian societal values such as respect for seniority and openness to participative management have contributed to the adoption of Japanese management in India.

A study by Basu and Yoshida (2012) that focused on the experiences of Japanese expatriate managers in India found several cultural similarities that aided management as well as differences that created management challenges. The positive values and attitudes that the Japanese and Indians are perceived to have in common include a ‘never-give-up’ attitude, self-motivation, diligence, and an interest in technical things. The management challenges included

differences in perceptions between the Japanese managers and Indian employees regarding time management, teamwork, and quality. Day-to-day communication was reported to be the biggest challenge.

While these studies shed light on Japanese management in India, they do not focus on the software development sector. For our purposes, it is useful to consider the management and HR issues that have been identified in India's software industry as this is the context in which Japanese GICs in our study are operating and will allow a better assessment of the cross-cultural management challenges and opportunities that Japanese GICs might experience.

MANAGEMENT ISSUES IN THE INDIAN SOFTWARE INDUSTRY

As highlighted earlier, the Indian software industry is rapidly growing (Bhatnagar, 2007). Two major growth challenges have been identified in this sector: market orientation and people management (Agrawal, Khastri & Srinivasan (2012).

Regarding market orientation, Agrawal and colleagues (2012) note that the industry has been positioned at the low end of the value chain such as maintenance and debugging. Industry observers have expressed the need for the Indian software industry to move up the value chain towards development of software products. Agrawal et al. (2012) found that software professionals in India prefer to work on software development involving current and new technologies. Yet, "the nature of the work in the Indian software industry is essentially maintenance and testing functions for legacy systems" and software professionals get bored easily with this type of work (Agrawal et al., 2012: 165). As perceived by software professionals, a typical maintenance project does not provide enough learning opportunities; it simply requires

bug fixing or time-bound enhancement and hence is not considered to be significant or challenging work.

Against this background, some of the key HRM challenges identified in the Indian software industry include the low-skilled nature of the work, the work and learning preferences of software professionals that remain unmet, a lack of well-developed HR systems and processes, high employee turnover, and a shortage of software professionals with sufficient knowledge and competencies, among others (Agrawal et al., 2012; Agrawal & Thite, 2003). While India has a large talent pool, not all are "industry-ready" with skills beyond what is needed at the entry level; thus, middle and senior managers are in short supply and subject to poaching (Bhatnagar, 2007). The growth of the Indian software industry is thus constrained by skill shortages, high levels of employee attrition, and rapidly increasing manpower costs.

According to Agrawal and Thite (2003), Indian software professionals are no different from others regarding typical occupational traits. Additionally, however, they show some unique Indian cultural characteristics (Agrawal & Thite, 2003). Apart from the typical concerns of managing organizational expectations and their own personal expectations for gaining technical excellence and tangible and immediate rewards, they also need to manage the expectations of their peers and family. According to Agrawal and Thite (2003: 254), "peers discuss, often in exaggerated terms, how they are working on the latest technology and receive substantial wage increases, particularly overseas offers." Further, parents and family members of software professionals are influenced by the media hype surrounding the prospects of the Indian software industry, exert pressure on them to go for positions that offer big money, overseas trips, and other perquisites (Agrawal & Thite, 2003). Moreover, settling abroad is considered a status

symbol in Indian society, and this is attractive from the perspective of the family. “These multiple pulls and pressures create immense confusion in the minds of Indian software professionals and tempt them to go for short-term gains, often at the cost of the technical excellence to be gained by staying on in one position or organization for a sufficiently long period” (Agrawal & Thite, 2003: 254).

Such exaggerated expectations translate into HRM-related problems. For instance, when software professionals are being interviewed for a position, they state that learning is their most important objective, but then lobby for positions that are seen as high potential by their peers and family members. Many become disillusioned with salary increases and promotions and express their frustration by resigning from their jobs (Agrawal & Thite, 2003). This is exacerbated by the global demand for Indian software professionals that has resulted in high turnover and spiralling salary costs for the Indian software services industry. Because settling abroad is a status symbol, “the majority of Indian software professionals aspire and tend to migrate overseas permanently once they acquire about three years’ experience making it difficult for software organisations to staff and particularly, lead projects” (Agrawal & Thite, 2003: 254).

The USA tends to be the preferred ultimate destination for settling permanently since the USA is considered to be the industry leader in terms of remuneration and opportunities to work on emerging technologies. This is because Indian software organisations derive most of their income from North America. Further, Indian software professionals are relatively more familiar with the language and culture in the USA compared to countries such as Germany and Japan (Agrawal & Thite, 2003).

METHOD

The study utilized a qualitative approach. Such approach is considered appropriate when there is a dearth of previous research on the subject, and when in-depth interviews will help to surface insights that may not be readily gained through other research methods (Eisenhardt, 1989; Miles & Huberman, 1994; Eisenhardt & Graebner, 2007). A qualitative approach is also appropriate for an exploratory study such as the current one (Yin, 2009). A qualitative method is exploratory in nature, since it seeks to understand phenomena that are poorly understood and deeply contextualized. This approach is of growing importance to the field of international business (Birkinshaw, Brannen, & Tung, 2011).

In February-June 2015, 15 in-depth semi-structured interviews were conducted, consisting of eleven Indians and four Japanese working in Japanese GICs of large Japanese companies located in greater Bangalore in southern India. The GICs are captive centers, and cater to a Japanese client base. Interviewees included senior general managers, general managers, and project managers, among others. Additionally, one of the authors had opportunities to gather supplementary data while working as a consultant for a period of three months with a Japanese GIC operating in Bangalore which belongs to a large Japanese conglomerate. The interviews were conducted in English, one of the main business languages in the Bangalore software industry. The interview protocol consisted of open-ended questions to elicit responses on the cross-cultural challenges and opportunities for Japanese GICs in the Indian software industry.

The interview transcripts were coded into categories independently by the authors. As elaborated below, the categories appear to fall into three general themes: one on quality and customer expectations, one on management and HRM issues, and another on growing in India.

RESULTS

Quality and Customer Expectations

Planning for perfection

One of the key areas highlighted in the interviews was the comparison of Japanese companies with others in the global software industry regarding how to deal with change in a software project. Software project specifications get redefined often during the different phases of the project based on the requirements of customers. The global software industry has technologies such as Agile Technology which facilitates dealing with change on a regular basis. These technologies require accepting and working with uncertainties as a part of software development projects during the entire project planning and execution phase. In the global software industry, it is common practice that customers and service providers are prepared to live with uncertainties and continue to redefine priorities on a regular basis.

According to interviewees, Japanese customers like other software customers continue to redefine their project requirements and software specifications during the project execution phase. However, Japanese plan every aspect of project before execution to ensure that project outcomes are as planned. As stated by a Japanese senior general manager:

> *The Japanese like to avoid uncertainty and therefore they need information about an entire development process.* (Japanese Interviewee – 1)

As such, Japanese companies are highly systematic, process bound, and data focused. There is a focus on documentation and sometimes the Japanese are reluctant to accept new technologies. Japanese managers find it difficult to work with software project management technologies which require living with uncertainties on a continuous basis. One of the interviewees said:

Agile Technology is not relevant for the Japanese as there are no uncertainties in their world. (Indian Interviewee – 5).

Another respondent echoed this sentiment by saying:

The Japanese do not need to employ the Agile software approach because they are very disciplined and things usually go as planned. But having such discipline and clarity costs time and affects the launch of products in the market. (Indian Interviewee – 3)

Thus, Japanese companies like to deliver perfect software and want to incorporate changes as required by customers. And at the same time, Japanese cultural conditioning of risk aversion and fear of failure holds them back from experimentation and learning new technologies which in turn affects launch speed and quality of innovations. Japanese respondents acknowledged these challenges, while stating that their company is considering a shift to Agile technology:

The Japanese need to know all the requirements before development. The quality targets are also set before development. Sometimes, the stringent quality requirements delay the launch of a software product. However, [our company] *is considering shifting to the 'Agile' method of software development.* (Japanese Interviewees – 2 & 3)

<u>Ensuring bug-free software</u>

A key issue that came to the fore particularly among Indian respondents was the detailed focus on quality, specifically the expectation that all bugs would be removed from the software. Interviewees explained that before delivery to a customer, software is tested in a variety of test cases to check whether the software will work in all those situations, and that test cases in their company far exceeded test cases in non-Japanese companies. As stated by one interviewee:

> *If North American and Indian software teams would use 100 test cases to accept new software, Japanese easily would design 1,000 test cases to check the same new software. In addition, Japanese companies insist on a very meticulous and perfect documentation about every aspect of testing.* (Indian Interviewee - 4)

In spite of best efforts, interviewees explained, it is difficult to check for all possible scenarios in which the given software will work. That is why in US or European companies invariably a few bugs are left out in a software which are resolved in the next version of the software. In the case of Japanese companies, there is an expectation of detailed testing to ensure that software is completely free of bugs. This might lead to a delayed introduction of the product to market, as expressed in the following:

> *If Microsoft were to ensure perfect Window software, the first version of the software would have been delayed by ten years and there would be no opportunity to release ten versions of the Window software.* (Indian Interviewee- 4)

Japanese interviewees also observed that their companies liked to ensure quality. One interviewee stated:

> *Our company has very high quality requirements and we prefer our standards over the vendor's quality standards. Vendors need to be educated in the Japanese methods of software development to ensure zero defects.* (Japanese Interviewee – 1)

The same interviewee went on to explain that in his company education materials are designed in Japan and translated into English. For instance, kaizen key performance indicators have been

introduced to their vendors in India, and employees are rewarded every six months for meeting quality requirements. (Japanese Interviewee – 1) The concern for quality and zero defects was echoed among other Japanese respondents who observed that their companies like to ensure that perfect and bug-free software is delivered to clients. Hence, Japanese check software for all possible case situations in which the software should work. (Japanese Interviewees – 2 & 3).

Such approach to quality is preferred by Japanese companies even if it takes longer to complete a project, as expressed by a Japanese senior general manager:

> *Quality is paramount for the Japanese even if it means a longer time to complete development.* (Japanese Interviewee – 1)

The detailed focus on quality and bug testing was questioned by Indian respondents. One stated:

> *Such detailed testing by Japanese software companies may ensure that software is totally bug free. However, it is very demanding and many a times frustrating for software professionals. It affects productivity of the software team and the project will require more time and resources. Indians, who have worked with North American and European software firms, find it very irritating to invest so much effort in testing to remove bugs which may not be very significant in terms of the product specifications and functionality.*

Another saw a parallel with TQM and questioned the applicability to software development:

> *Japanese companies are known for their success essentially due to their commitment to delivering quality to customers through practising Total Quality systems and processes in manufacturing. It appears that Total Quality is being transferred to the IT and software sector. In the high-tech industry in addition to delivering quality products and services,*

being innovative is equally or possibly more important. An innovative product or a service is more easily noticed by markets and customers than a perfect quality high-tech product without some new and innovative features.

Giving reverence to the customer

Related to customer expectations for quality, Indian interviewees noted the high deference given to their Japanese clients, with one interviewee stating that 'the customer is like a God.' All the requirements of a customer need to be understood and delivered. There is no question of arguing with the customer or questioning his requirements. According to one of interviewees, the Japanese customer might even shout at the service provider, and states that:

> *In Japan, under such circumstances, the service provider would not feel insulted and would consider it to be okay. Indian software professionals respect their customers as professionals. They listen to their customers but at the same time, they expect that the customers should treat them as professionals and listen to their views and difficulties, if any.* (Indian interviewee- 4).

Interviewees expressed that as software professionals they are knowledge workers and are worthy of respect.

Management and HRM

Work ethic

Indian and Japanese respondents commented on differences in work ethic. Issues that came up include differences in dedication to work, punctuality, teamwork, and quality and. For instance, one of the Indian managers stated:

As a people, the Japanese are polite and team-oriented. They are dedicated to producing high quality outputs and they do not need to be rewarded for their hard work like Indian developers. For the Japanese, good work is the reward. (Indian Interviewee – 1)

From the viewpoint of an Indian senior project manager:

The Japanese do not argue about tasks allotted to them even if they may be repetitive. They are very disciplined, methodical and organised. The Japanese expect the same qualities in the Indian employees. Middle managers find it very difficult to meet the expectations of the Japanese seniors and Indian subordinates. But the Japanese like the Indian people and respect them. Indians are very keen learners but lack discipline. (Indian Interviewee – 3)

Regarding punctuality and other work-related characteristics:

The Indian developers are not punctual and this is a major gripe for the Japanese. They are also very reluctant to discuss business problems. (Japanese Interviewee – 1)

The Japanese build impressions of people and stick to it. They evaluate people in terms of punctuality, delivery of work and well-thought speech which can be substantiated with evidence. If a person falters during the impression building phase he will lose the trust of the Japanese. (Indian Interviewee – 3)

Consensus decision making and team functioning

Some Indian interviewees commented on the consensus based decision making in Japanese companies. One, for instance, noted that consensus decision making style slows things down (Indian Interviewee – 3). It was also noted that decision making and team meetings involve people that are not directly related to the project at hand. One respondent, for instance, who worked earlier for a US mobile company, recalled his experience when the India based outsourcing team, consisting of three members, visited Tokyo for understanding and defining project requirements.

> *To our surprise, all 16 members of the Japanese team attended the project specification meeting for the full three days. Except for two or three members, all the remaining Japanese team members did not have any specific role in the team meetings. It was explained to the Indian team visiting the client site in Japan that it would help the Japanese team members to understand the context. Normally, two or three members from the client team attend such project definition meetings. The Indian team was not used to such a large number of team members from the client team attending the project definition meeting, and they felt it to be an unproductive use of team resources.* (Indian Interviewee – 4)

Communication

Communication was mentioned by both Indian and Japanese interviewees as a challenge, in terms of the spoken language as well as explicit versus implicit communication.

> *Language is a difficulty with both sides needing to be comfortable with English and Japanese.* (Japanese Interviewee – 1)

For the Japanese managers, there are different styles of English in India:

> *Japanese are accustomed to the American way of speaking English. India is a very diverse country and people from different states speak English in different ways. 'Hinglish' is a challenge for the Japanese*. (Indian Interviewee – 5)

For the Indian software professionals, learning Japanese has career implications:

> *If an Indian does not know the Japanese language he/she will not be able to communicate with the customers and will not be able to grow in their role.* (Indian Interviewee – 5)

An Indian may also perceive that communication among Japanese is closed:

> *The Japanese have good yet closed communication among themselves and within their group they always form a common perspective on people and situations.* (Indian Interviewee – 5)

Further, implicit communication and expectations were also noted. Japanese managers at HQ expect that stakeholders and vendors working with them would understand their implicit expectations and deliver them as a part of the project delivery. Hence, the Japanese HQ does not explicitly define their expectations from their subsidiaries and vendors. Many of these expectations are related with quality and testing requirements. These unstated expectations get revealed during the project delivery phase and invariably it leads to conflict situations and delays delivery of the project.

Attrition

As noted earlier, high attrition has been part of the Indian software industry from its inception. One interviewee described it thus:

> *In India, if a person stays with an organisation for more than three years it is assumed that something is wrong with that person.* (Indian Interviewee – 3)

Japanese have long practiced the concept of lifetime or long-term employment and hence find it difficult to appreciate the high rate of attrition experienced in Indian software companies. In addition, Japanese companies invariably appoint Japanese managers at senior and top management positions, and promotions for Indian employees do not occur quickly in comparison with other companies in the industry. One interviewee noted that:

> *Promotions happen quickly in Indian IT. People can become a project lead in five years and a project manager in eight years. In Japan it takes 20 years to become a project manager.* (Indian Interviewee – 5)

Another interviewee talked about the Indian aspiration to live in the USA, Europe or Singapore where there are more desirable opportunities:

> *Indian engineers join Japanese companies, learn skills and then jump to companies which provide more desirable onsite opportunities. Japanese companies pay less than American and European companies.* (Indian Interviewee – 5)

High attrition was not the case in all companies, however:

> *Attrition is low and there are many employees who have 10-15 years of experience at* [our company]. *In 2002, we hired 20 engineers and out of this group 13 people still remain. The fresh engineers tend to remain but the lateral hires have a tendency to move*

out. Lateral hires come with experience and tend to compare practices at [our company] *with American working practices.* (Indian Interviewee – 3)

Thus, while lack of career progression opportunities beyond middle management level in Japanese GICs may be an additional causal factor for high attrition at the middle management level in Japanese GICs, attrition may be more acute among lateral hires that have experience with other companies. For instance, it was noted that:

For a Japanese company quality is very important as opposed to American companies who strive to reduce the time to market for products. American companies are quick to hire and fire people and if one is to move into a Japanese company previous knowledge must be unlearned. (Indian Interviewee – 1)

Growing in India

Interviewees, both Indian and Japanese, commented on the opportunities they saw for greater success of Japanese businesses in India (and globally). The comments fall generally in cultural affinity and HRM, and market orientation and the role of GICs.

Cultural affinity and HRM

There is a perceived affinity between Indian and Japanese people that was expressed during the interviews, as indicated by the following:

Upon joining the Japanese firm it takes a couple of years to learn the Japanese way of doing business. People from Pune, Kolkata and Tamil Nadu have an affinity for Japanese culture and Japanese organisations. Also, they seek opportunities which the herd is not chasing. (Indian Interviewee – 1)

One respondent noted the cultural complementarities between Indians and Japanese that could result in strong team performance:

> *Indians are good at making plans in ad hoc situations while the Japanese are good at focused and systematic planning. However, the consensus decision making style of the Japanese slows things down in a turbulent business environment which requires quick action. If Japanese and Indian teams can be merged it would result in the best team in the world in terms of long term planning and delivery. But the Indians need to learn discipline and the Japanese need to release some control.* (Indian Interviewee – 3)

One company has dealt with cross-cultural challenges by creating a new position to bridge cultures and leverage knowledge:

> *There are some cultural challenges for* [our company]*. Documentation is difficult due to the bilingual nature of the business – English and Japanese.* [Our company] *has created a position known as the 'bridge engineer.' This bridge engineer is an Indian developer who is aware of the Japanese culture, mindset and implicit behaviour styles. The bridge engineer also possesses project management knowledge and armed with this array of skills is able to extract tacit knowledge from the Japanese engineers.* (Japanese Interviewees – 2 & 3)

Japanese respondents noted the importance of building reputation and attraction of talent through providing challenging opportunities:

> [Our company] *finds it difficult to retain talent as people are constantly on the lookout for interesting work which challenges their abilities. In the Indian job market* [our company] *is not known for software development yet. This gives the company an opportunity to spread*

awareness in colleges and create a brand for itself in the talent markets. [Our company] *can build its brand by recruiting fresh graduates and providing challenging internship opportunities to students. By word of mouth* [our company] *can build its brand.* [Japanese Interviewees – 2 & 3]

Market orientation and the role of GICs

Another issue that came to the fore was the Japanese GICs' focus on a Japanese client base, as the following suggests:

> *The Japanese sales people are still focused mainly on Japan as a market. The Managing Director of* [our company] *India is well travelled and does not approve of this sales strategy which he believes could lead to the demise of* [our company]. *Sales are focused on Japan because people are comfortable with Japan as a market.* [Our company] *is a big brand and they can charge a premium and deliver premium products. The Japanese are not keen on international sales.* (Indian Interviewee – 3)

A sales focus on the Japanese market does not imply a lack of innovation potential, as noted by one respondent:

> *Innovation in Japan is good. The Japanese are very good at creating prototypes but hardly anything is taken to market. There is a lot of blind technology which the company doesn't know how to utilise.* (Indian Interviewee – 3)

However, innovation is not high in Japanese GICs:

> *For a captive division like* [ours]… *the levels of innovation are low and experienced process-oriented professionals are preferred.* (Indian Interviewee – 1)

Indian respondents say they would like GICs to be given greater and more complex responsibilities, that is, to be a strategic partner with the Japanese HQ. While this is also an issue with North American and European GICs, the latter have worked with Indian software professionals for more than two decades and have increasingly begun to treat their GICs less as cost centers and more as innovation hubs. Japanese GICs, according to interviewees, remain at the lower end of the market. There is pressure to change this focus, and to move toward greater innovation and knowledge work at the GIC level, as highlighted by an Indian respondent:

> *India at one point was stereotypically believed to be a low-cost destination for outsourcing. Now Indian software engineers are becoming known for the software development prowess hence they can share their knowledge with the Japanese and inspire them to make a difference in their own software market.* (Indian Interviewee – 2)

DISCUSSION AND CONCLUSION

> *The key to success in the decades ahead is to look not just at the quality and sophistication of one's products but also at the breadth and diversity of one's markets.*
>
> -Peter Löscher, 2011, p.273

Japanese firms have accelerated their investment in India rapidly over the past two decades, but especially in recent years (Buckley et al., 2012; Farrell, 2008). India has consistently ranked first or second place over the past few years by Japanese companies for a promising investment destination over the medium term (JBIC, 2016, 2019). India has rapidly emerged as a global center for software development, attracting foreign direct investment in this sector. The availability of talent, cost competitiveness and willingness to learn and adapt to customer requirements and technology have been major factors contributing to the growth of the Indian

software industry (Agrawal, Khatri, & Srinivasan, 2011). Cross-cultural differences between Japan and India have not been well highlighted as potential barriers or enablers to successful business ventures, particularly in the software industry. The aim of this qualitative, exploratory study was to assess cross-cultural challenges and opportunities of Japanese GICs in the Indian software industry through in-depth interviews.

While the study has limitations, most notably the small sample size, the findings provide a rare glimpse into the world of Japanese GICs in the Indian software industry. The findings from the study suggest that a detailed focus on quality, long-term planning, consensus-based decision-making and many of the good practices learnt from the TQM era which had contributed to the success of Japanese manufacturing companies, may be holding back Japanese high-tech companies from realizing their full potential. For software services and the high technology industry, innovations and being first in the market are valued by customers. Further, the global environment of the knowledge economy is highly turbulent and demanding in terms of disruptive innovations. It requires a willingness to nurture creativity and decentralized decision-making. It also requires acceptance of risk as a part of nurturing a culture of disruptive innovations.

The Indian respondents expressed a desire to work on more challenging technological tasks, and were frustrated at the amount of time they had to spend on maintenance and debugging. Interviewees also expressed a desire for career development and progression, and noted the ease in which employees would leave an organization in order to find more attractive career opportunities. These findings support the work of others (e.g., Agrawal et al., 2012) who have written on the management and HR issues in the Indian IT sector. While attrition, for instance, is common in the industry, there may be other factors that exacerbate the trend in Japanese companies, particularly the non-challenging work and limited promotion prospects.

Japanese respondents expressed frustration over differences in work ethic, particularly around punctuality, lack of planning and concern for quality. Cultural frictions around punctuality and planning may be attributed to cultural differences in uncertainty avoidance, where it is considerably higher in Japan compared to India (Hofstede, 1991).

Both Indian and Japanese respondents commented on at least two key ways in which the success of the Japanese GICs in the Indian software sector might be enhanced. First, it was noted that there are cultural affinities between Indians and Japanese that can be built upon. This finding is consistent with the work of Maharjan and Sekiguchi (2016, 2017) that highlight the benefit of cultural similarities between Indians and Japanese for more effective work and business relationships. As noted by one Indian interviewee, if Indians can become more disciplined and Japanese can give up some control, together they will create the best team in the world. One company created a new position, the 'bridge engineer' to smooth relations between the Japanese HQ and the GIC in India, while also providing an attractive position. Another company planned to enhance its brand in the software development space by offering interesting and challenging internships to fresh Indian graduates.

Second, findings suggest that interviewees think it is time for a re-evaluation of Japan's market orientation and the role of GICs. Japanese sales continue to be focused on the Japanese market. Interviewees saw an opportunity for innovative product development that would be of value not only to the Japanese market but to global markets as well. The interviewees were very clear that Japanese GICs in India need to be strategic partners. The role of GICs has been at the lower end of the market, focusing on routine de-bugging. There is an opportunity to move GICs into more of an innovation hub, enabling innovative software development. This requires, however, that Japanese companies learn to live with uncertainties as a part of software

development and product enhancement, and to adopt technologies which facilitate managing and living with uncertainties. One company, as highlighted by the Japanese interviewees, is considering to move in that direction. It was noted that Japanese software companies should define quality for the software industry in congruence with the global industry and its multiple stakeholders. This speaks to broadening the market beyond Japan.

As observed by Peter Löscher, president and CEO of Siemens AG, who spent several years in Japan, it is not only the quality of the product but the diversity of the market that is important for future growth (Löscher, 2011). This is tied to what other observers have called the 'Galapagos Effect' in Japan whereby the country secludes itself from the rest of the world by gearing its high-quality technological products only for the Japanese market (Mikitani & Mikitani, 2014; Sekiguchi, 2011). Sekiguchi (2011: 284) asserts that Japan's IT industry has moved in this secluded direction due to the "peculiarities of the nation's technology and industrial structure," a trend with serious implications for Japan as a whole. Based on the findings of our study, we suggest that Japanese HRM and other traditional management practices that supports such a secluded 'ecosystem' is part of the Galapagos Effect. These include consensus-based decision making, the need to get approval from HQ, and a high percentage of Japanese expatriates. The result is continued focus on the market that Japanese companies know best, their own. As noted by Sekiguchi (2011), stand-alone excellence is no longer sufficient for many electronic items, since what is currently valued is more about what the items can do when they are plugged into a larger, global network.

Sekiguchi (2011) makes several recommendations for Japan and Japanese companies to escape Galapagos, that resonate with the findings of the current study. One is that Japanese businesses should aim to create new markets instead of relying so heavily on the Japanese

market. Relatedly, Japan's IT companies need to develop professional staff capable of influencing global counterparts to shape international standards around Japan's excellent technologies. This requires, among others, the creation of networks of global talent that can help to transform Japanese technology and expertise into global standards. To do this, Japanese companies may need to revitalize their HR policies by introducing incentives and rewards to attract, motivate, and retain creative, talented employees (Beyer von Morgenstern et al., 2011). Japanese GICs in India would be an excellent and valuable place to start.

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English Proficiency of Foreign Subsidiary Managers and Work Performance

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English Proficiency of Foreign Subsidiary Managers and Work Performance

Abstract

Non-English-native local managers in foreign subsidiaries encounter language barriers while interacting with other units of MNEs. This study explores whether English proficiency of non-English-native managers mitigates language barriers and improves their work performance in foreign subsidiaries. To explore this research question, it introduces the multidimensionality of English proficiency and uses the insight from media choice theory and neuroscience. A questionnaire survey collects data from Japanese employees who work for MNEs' subsidiaries operating in Japan. This study finds that literacy skill of English is more important than oral skill for managers in foreign subsidiaries to achieve high work performance while English proficiency is not a core condition for non-managers to outperform. This study also finds that in addition to English proficiency, an ability to understand the specific context of interactions and an ability to decode and encode messages under that specific context are fundamental to achieve high work performance. From these findings, this study extends media choice theory by proposing the appropriate combinations of the complexity of the content, the communication media and the language skill.

Keywords: communicative competence, English proficiency, language barriers, local manager, media choice theory

Introduction

Language has long been considered as a part of culture and therefore has been overlooked; however, the issues related with language in MNEs have become one of important areas of IB studies (Harzing and Feely, 2008; Harzing, Koster and Magner, 2011; Henderson, 2005; Karhunen, Kankaanranta, Louhiala-Salminen and Piekkari, 2018; Tenzer, Terjesen and Harzing, 2014, 2017). Geographical dispersion of MNEs' operations promotes the diversity of languages used within an MNE, which creates language barriers between parent firms and foreign subsidiaries (Harzing and Feely, 2008). Language barriers are also amplified by variation in the proficiency of a corporate language among managers (Aichhorn and Puck, 2017b; Tenzer et al., 2014). MNEs often adopt corporate language in order to mitigate the language barriers; in many cases, corporate language adopted by MNEs is English (Aichhorn and Puck, 2017a, 2017b; Karhunen et al., 2018; Reiche, Harzing and Pudelko, 2015). Studies on language barriers in MNEs have mostly emphasized a positive effect of English proficiency of managers on organizational outcomes because it lowers language barriers and mitigates the negative effect caused by the barriers (Klitmøller and Lauring, 2013; Peltokorpi, 2015, 2017; Reiche et al., 2015).

One of most studied settings is language barriers between the headquarters and foreign subsidiaries, focusing on English proficiency of local managers in subsidiaries (Aichhorn and Puck, 2017a, 2017b; Harzing et al., 2011; Peltokorpi and Vaara, 2014; Reiche et al., 2015). Using that research setting, most previous studies have explored the effect of local managers' English proficiency on organizational outcomes, such as knowledge transfer (Peltokorpi and Vaara, 2014; Reiche et al., 2015). As a result, how

English proficiency of local managers affects their work performance in foreign subsidiaries remains as a question. In addition, most previous studies have predominantly emphasized English proficiency as a factor to mitigate language barriers (Björkman and Piekkari, 2009; Harzing and Pudelko, 2013; Peltokorpi, 2015); as a result, they have not explored other competences of local managers that can alleviate language barriers. A group of studies contend that because communication inside an MNE is neither independent of nor unaffected by contexts, an ability to understand contexts of interactions is fundamental to achieve communicative effectiveness (Ehrenreich, 2010; Karhunen et al., 2018; Kassis Henderson, 2005; Louhiala-Salminen and Kankaanranta, 2011). To improve the quality of interactions with the headquarters, local managers may need to compose and interpret information by accommodating to a specific context or situation of an interaction (Karhunen et al., 2018; Kassis Henderson, 2005; Louhiala-Salminen and Kankaanranta, 2011). However, knowledge has not been accumulated on whether an ability of local managers to achieve communicative effectiveness complements their English proficiency for mitigating language barriers. Accordingly, this study explores two research questions: whether English proficiency of local managers has a positive effect on their work performance in foreign subsidiaries and what other competences of local managers improves communicative effectiveness and affect the effect of English proficiency on work performance.

This study will contribute to studies of language barriers in MNEs in the following ways. This study advances the previous studies by introducing the notion that English proficiency is a multidimensional construct. In this study, it is divided into the two

elements: oral skill and literacy skill. Decomposition of English skills enables this study to capture which dimension of English skills more contributes to high work performance in MNEs. Second, this study accounts for positions of local managers in foreign subsidiaries and explores the differences in required English skills by positions. By dividing employees into managers and non-managers, this study finds that the importance of English proficiency to achieve high work performance differs across positions in the organization. This study reveals that different positions in the organization require different dimensions of English skills. In particular, managers need literacy skill rather than oral skill, while neither oral nor literacy skill has a strong causal relationship with high work performance of non-managers.

Third, related to the first and the second points, this study demonstrates that English proficiency is not always a prerequisite for high work performance. This is especially the case in non-managers. For non-managers, high oral and literacy skills do not improve their work performance. Forth, based primarily on media choice theory and the insight from cognitive neuroscience (Dennis, Fuller, and Valacich, 2008; Tenzer and Pudelko, 2016; Volk, Köhler and Pudelko, 2014), this study theoretically explains why literacy skill is important for managers in foreign subsidiaries to achieve high work performance. This will provide a theoretical foundation to advance the relationship between English proficiency and work performance and proceed studies on language barriers.

Finally, this study suggests that skills other than English skills improve the work performance of non-English-native managers through effective communication. Specifically, it demonstrates that communicative competence, professional competence,

and educational level of local managers are related with their work performance. By theoretically explaining why these skills are essential, this study enriches media choice theory. This study proposes that these skills other than English skills enables local managers to understand the context of communication and appropriately encode and decode messages in that context. As a result, the convergence of the meanings in discussions and negotiations is promoted. This study theorizes how skills other than language proficiency improve communication quality.

Multidimensionality of language proficiency

Language barriers inevitably arise inside an MNE because many host countries adopt different official languages from the MNE's home country. Language barriers are "obstacles to effective communication, which arise if interlocutors speak different mother tongues and lack a shared language in which they all have native proficiency" (Tenzer et al., 2014; p.509). Language barriers can affect communication, knowledge sharing, social categorization, power relations and trust formation inside MNEs (Tenzer and Pudelko, 2017; Volk et al., 2014). As a remedy to overcome language barriers, managers' language proficiency has been emphasized in previous studies (Barner-Rasmussen, Ehrnrooth, Koveshnikov and Makela, 2014; Feely and Harzing, 2003; Harzing and Feely, 2008; Harzing et al., 2011; Latukha et al., 2016; Peltokorpi, 2015; Piekkari and Zander, 2005). Managers are required to have high proficiency in corporate language that is utilized to facilitate communication inside the MNE (Peltokorpi, 2015). Particularly, English proficiency is the most important for managers in MNEs since English is most commonly

adopted as corporate language (Aichhorn and Puck, 2017b).

Previous studies on language barriers in IB have implicitly assumed language competence as a unidimensional construct (Peltokorpi, 2015; Presbitero, 2017; Reiche et al., 2015; Selmer and Lauring, 2015). In comparison, in applied linguistics, language competence is viewed as multidimensional (Domínguez and Pessoa, 2005; Griffin, Hemphill, Camp and Wolf, 2004; Sparks et al., 2006). Studies in applied linguistics broadly distinguish oral skill from literacy skill (Domínguez and Pessoa, 2005; Griffin et al., 2004; Sparks et al., 2006). Oral skill is the abilities to support a spoken form of language, which consist primarily of speaking and listening abilities (Domínguez and Pessoa, 2005; Richards and Schmidt, 2010). On the other hand, literacy skill is the abilities to read and write in a language (Domínguez and Pessoa, 2005; Richards and Schmidt, 2010). Oral skill is more relevant to synchronous/spoken communication while literacy skill is more relevant to asynchronous/written communication (Tenzer and Pudelko, 2016, 2017). The two skills are considered to develop in different stages of language learning (Griffin et al., 2004). Accordingly, the level of the competence in oral skill and literacy skill of English may vary across managers in MNEs. For local managers whose native language is not the corporate language, spoken communication may be more difficult than written communication or vice versa. Oral skill and literacy skill are complementary but can be viewed as distinct dimensions that consist of language proficiency. They support communication under language barriers in a different and respective manner.

Synchronous communication versus asynchronous communication

Media synchronicity theory addresses the functions of communication media to support different communication processes and achieve different communication purposes (Dennis et al., 2008; Tenzer and Pudelko, 2016). Media synchronicity theory contends that communication consists of the two processes, namely, conveyance and convergence (Dennis et al., 2008). In the conveyance process, information is transmitted and processed, while the convergence process is the discussion and negotiation process of individuals' interpretation of transmitted information to achieve a common understanding and mutual agreement of the information (Dennis et al., 2008; Tenzer and Pudelko, 2016). According to media synchronicity theory, conveyance process requires lower level of media synchronicity while convergence requires higher level of media synchronicity (Dennis et al., 2008). When communication media is synchronous, participants are communicating simultaneously while they do not work together simultaneously when it is asynchronous (Dennis et al., 2008).

Media synchronicity theory has originally been developed assuming monolingual environments (Tenzer and Pudelko, 2016). Studies on language barriers in IB extended media synchronicity theory to the multilingual context where a language barrier exists among participants of communication (Tenzer and Pudelko, 2016). They posit that under multi-lingual settings and language barriers, synchronous communication overloads a cognitive capacity of individuals, and accordingly asynchronous communication is more relevant to the convergence process of the meaning (Tenzer and Pudelko, 2016; Volk et al., 2014). This is ascribed to the rehearsability and reprocessability of asynchronous

communication (Tenzer and Pudelko, 2016). Rehearsability is the extent to which the media enables the sender to edit and fine-tune messages before sending them (Dennis et al., 2008; Tenzer and Pudelko, 2016). Media reprocessability allows the recipient to reexamine and reprocess messages when decoding (Dennis et al., 2008; Tenzer and Pudelko, 2016). Studies in IB have assumed language competence as a unidimensional construct. This study introduces the notion of the multidimensionality of English proficiency and exploring how oral skill and literacy skill work in conveyance and convergence processes.

Non-managers of foreign subsidiaries may be more involved in day-to-day operations while managers may be more involved in critical and complex decision-making. In day-to-day operations, tasks are routinized to a certain degree and do not require complex decision-making. Accordingly, advanced vocabulary is less likely required during the implementation of routinized tasks (Klitmøller and Lauring, 2013). Prompt transmission of information to/from expatriate managers in foreign subsidiaries may often be demanded to solve problems when irregularity occur in daily operations. Accordingly, communication tends to be achieved through synchronous media, such as face-to-face communication and telephone since these media are characterized as high information transmission velocity (Dennis et al., 2008). Convergence of the meaning of transmitted information is attained through exchange of information in synchronous communication since the content of information is not complex and the interpretation is made based on prior shared knowledge (Dennis et al., 2008; Klitmøller and Lauring, 2013). Oral skill of English can support communication through synchronous media. To

implement day-to-day operations and achieve higher workplace performance, oral skill is more required for non-managers.

Managers of foreign subsidiaries may be more frequently involved in decision-making on important and complex strategic issues. Discussions and negotiations regarding such issues with the headquarters and expatriate managers may be conducted using synchronous media, such as face-to-face meetings, video conferences and conference calls. The content of discussions and negotiations regarding strategic and controversial matters is more complex and equivocal than that of routinized and day-to-day operational matters (Klitmøller and Lauring, 2013). Language barriers prevent participants in communication from reaching agreed-upon interpretation of the meanings during synchronous communication (Klitmøller and Lauring, 2013; Tenzer and Pudelko, 2016). Convergence generally requires rapid back and forth transmission and processing of information, and verification and adjustment of the interpreted meaning among participants (Dennis et al., 2008). The high cognitive activities in a brain are required to implement the convergence of meanings while simultaneously implementing the conveyance of information (Volk et al., 2014). A substantial proportion of a capacity of the cognitive process may be allocated to the conveyance process of information during synchronous communication (Volk et al., 2014). Consequently, convergence of interpretations of the conveyed information is not well achieved during the synchronous discussions and negotiations (Louhiala-Salminen and Kankaanranta, 2011; Tenzer and Pudelko, 2016). Moreover, decision-making on strategic, complex and controversial matters may be required while processing the convergence of the meanings; however,

heavy load to working memory exhausts a cognitive capacity to be used for thinking, reasoning and deciding (Volk et al., 2014). Because of high cognitive load of information processing and interpretation, non-English-native managers might not be able to logically think, reason and decide in parallel (Tenzer and Pudelko, 2016). As a result, non-English-native managers of foreign subsidiaries may fall into biases and errors in analytic thinking when they are asked to make decisions during the synchronous communication (Volk et al., 2014).

To reach the convergence of different interpretations of the information transmitted during the synchronous communication, retrospective analysis of the information subsequent to synchronous communication may be needed (Dennis et al., 2008; Louhiala-Salminen and Kankaanranta, 2011). Asynchronous communication media, such as documents and emails, can support the accurate comprehension of the contents of discussions and negotiations through synchronous media (Kankaanranta and Planken, 2010; Louhiala-Salminen and Kankaanranta, 2011). Reprocessability of asynchronous media allows local managers to spend more time decoding information (Dennis et al., 2008). Non-English-native managers can analyze and re-interpret the content of conferences with the help of related documents and emails. Misunderstanding of meanings may be corrected during this process. After re-decoding the information, managers can be involved in thinking, reasoning and deciding activities. A larger quantity of cognitive resources can be allocated to these high cognitively demanding activities. After making a decision, local managers need to structure messages sent to the headquarters appropriately. Rehearsability of asynchronous media enables non-English-

native managers to edit and fine-tune messages to be conveyed before sending (Dennis et al., 2008; Tenzer and Pudelko, 2016). Literacy skill such as writing and reading skills supports the more effective use of asynchronous media. Managers with high literacy skill can reach more appropriate strategic decisions by taking advantage of asynchronous media.

The role of communicative competence

Effective communication enables information to flow without loss or bias caused by language barriers (Peltokorpi & Vaara, 2014). A manager sends messages to an interlocutor in the form of spoken or written language. The manager needs to encode information into a message so that the recipient of the message can decode it without misunderstanding (Dennis et al., 2008). When messages are received, the manager also needs to correctly decode and interpret the received message to respond appropriately in a specific context of the communication (Dennis et al., 2008; Kassis Henderson, 2005). Thus, messages should be encoded and decoded by accommodating to a particular situation or context (Karhunen et al., 2018; Kassis Henderson, 2005). Managers with high communicative competence have an ability to encode and decode messages appropriately in the particular context or situation (Björkman and Piekkari, 2009; Karhunen et al., 2018; Kassis Henderson, 2005; Louhiala-Salminen and Kankaanranta, 2011; Virkkula-Räisänen, 2010). They can interpret messages without misunderstanding and compose messages that do not cause misunderstanding. Accordingly, communicative competence can promote the convergence of meanings and increase communicative effectiveness.

Communicative competence is not merely linguistic competence, such as knowledge of phonology, syntax and semantics but competence to use language effectively in a particular situation (Ellis, 2008; Karhunen et al., 2018). Mastering the linguistic system of English by itself may not ensure the flawless sharing of information and appropriate encoding and decoding of intended meanings when language barriers are prominent (Karhunen et al., 2018; Peltokorpi and Vaara, 2014).

Managers discuss and negotiate complex, equivocal and controversial issues, which are greatly influenced by the context of a particular MNE or a situation. Thus, convergence of meanings is not easily and effortlessly realized. Local managers in foreign subsidiaries need to accommodate the context specific to the MNE or the issue, the interlocutors' communication style, their standpoint on the discussed issue, and the discourse pattern when communicating with the headquarters or expatriate managers (Kassis Henderson, 2005). Accounting for these elements, non-English-native local managers with high communicative competence may encode intended meanings into messages and decode the received messages appropriately even under language barriers, which supports the convergence of the meanings and improves communicative quality. By supporting encoding and decoding of messages, communicative competence may complement local managers' English proficiency derived from oral and literacy skills.

The role of professional competence

Strategic and operational issues discussed and negotiated in MNEs are context specific (Karhunen et al., 2018); they substantially reflect the situation faced by the MNE, the

country where the subsidiary operates, or the relationship between the headquarters and the subsidiary. To understand the content-specific discussions and negotiations in MNEs precisely, expert knowledge of a specialized field is fundamental (Karhunen et al., 2018; Louhiala-Salminen and Kankaanranta, 2011). Such knowledge facilitates the sharing of concepts, ideas, expressions and terminology specific to the issue of interest and promotes the appropriate encoding and decoding of messages regarding ongoing tasks in a particular context (Aichhorn and Puck, 2017a; Karhunen et al., 2018; Louhiala-Salminen and Kankaanranta, 2011).

Professional competence of local managers provides them with expertise and task-related knowledge of a particular field (Aichhorn and Puck, 2017a; Ding, Akhtar, and Ge, 2009; Louhiala-Salminen and Kankaanranta, 2011; Peltokorpi and Vaara, 2014). Such knowledge helps them understand the content of communication held within an MNE properly and provides them with a basis for the information processing specific to tasks, situations and context (Aichhorn and Puck, 2017a; Ding et al., 2009; Karhunen et al., 2018; Louhiala-Salminen and Kankaanranta, 2011). Thus, professional competence complements communicative competence by facilitating an understanding of the MNE-specific and task-related context and enabling local managers to decide when, how, what and whom to communicate aptly (Aichhorn and Puck, 2017a; Kassis Henderson, 2005; Louhiala-Salminen and Kankaanranta, 2011; Peltokorpi and Vaara, 2014). In addition, local managers are required to think, reason and decide regarding strategic and operational issues of interest while processing linguistic information (Tenzer and Pudelko, 2016; Volk et al., 2014). Professional competence enables them to capture the context of

the discussions and negotiations correctly, to promote the convergence of the meanings of the transmitted information, and then to think, reason and decide strategic and operational matters.

Professional competence of local managers can be utilized in a more productive way when it is applied to the areas of their expertise. Some local managers of foreign subsidiaries are responsible for tasks that are closely related to tasks in their previous workplace, while others come to be responsible for tasks that are unrelated to tasks in their previous workplace. In the former case, local managers more likely have accumulated a great pool of job-related knowledge from the past work experiences and acquired skills that are applicable to the current tasks. Accordingly, professional competence of local managers can provide them with relevant task-related knowledge to understand the context of discussions and negotiations appropriately when their current tasks are closely related to their previous job (Aichhorn and Puck, 2017a; Ding et al., 2009; Karhunen et al., 2018; Louhiala-Salminen and Kankaanranta, 2011). Hence, the relatedness of the current job to the previous job complements professional competence when local managers properly capture the context of the discussions (Aichhorn and Puck, 2017; Ding et al., 2009; Karhunen et al., 2018; Louhiala-Salminen and Kankaanranta, 2011). It will be a condition to facilitate the convergence of the meanings and improve local managers' work performance.

Education level of local managers positively affects their general human capital, as the human capital theory suggests (Becker, 1993). General human capital consists of knowledge, skills and abilities embedded in an individual (Becker, 1993). It can be

broadly applicable to multiple firms and workplaces rather than a specific firm or workplace (Becker, 1993; Campbell, Coff, and Kryscynski, 2012). General human capital can provide local managers with general business knowledge and be a foundation to carry out a variety of tasks in a workplace (Becker, 1993; Campbell et al., 2012; Louhiala-Salminen and Kankaanranta, 2011). Even when current tasks are distant from the previous job, local managers with high general human capital may be able to effectively employ their knowledge, skills and abilities to grasp the context of discussions and negotiations, which helps them encode and decode messages suitably. Thus, general human capital promotes the convergence of the meanings in interactions under language barriers.

In summary, from the above arguments, this study proposes that six factors interplay to affect work performance of non-English-native local managers. Oral and literacy skills of English are complemented by communicative competence; these factors interplay to facilitate encoding and decoding of messages in specific situations or contexts of MNEs. Professional competence, the relatedness of the current job to the previous job and the education level promote the understanding of the context or the situation.

Method

Sample and data collection

Data were collected by a questionnaire survey conducted in Japan. Japan is a favorable research setting for this study because it is a country with a limited pool of English proficient managers (Harzing et al., 2011; Harzing and Pudelko, 2013; Pudelko and

Tenzer, 2013). Generally, English proficiency of Japanese managers is lower than those in other countries, especially in speaking and listening (Peltokorpi, 2015). This may ensure sufficient variation of English proficiency of local managers in the sample. In addition, because of a limited number of English proficient managers, a serious language barrier is salient between parent firms and subsidiaries in Japan as well as expatriate managers sent from the parent firm and Japanese (local) managers.

Respondents of this study are Japanese employees who work for MNEs' subsidiaries operating in Japan. We asked respondents to choose two colleagues who were hired in the last five years. In the cases where more than two employees were newly hired in the last five years, respondents were asked to choose the newest colleagues. This procedure (i.e., choosing new colleagues) was taken to ensure that the effect of the relatedness of the current job to the previous job is not diminished due to long work experience in the current workplace. After choosing two colleagues, respondents were asked to evaluate the colleagues' English proficiency and other skills as well as their work performance, instead of self-evaluation by respondents of skills and work performance. This approach avoids problems arising from self-assessment (Kruger and Dunning, 1999; Podsakoff and Organ, 1986; Ross, 2006). In particular, these problems may inflate when respondents are incompetent or lack relevant knowledge and expertise because such respondents tend to overestimate themselves (Kruger and Dunning, 1999; Ross, 2006). A seven-point scale that ranges from 1 'strongly agree' to 7 'not at all agree' was used. Wordings for each point on the scales were properly adjusted depending on what items ask to rate.

An online survey service firm was used to collect questionnaires. The firm distributed

questionnaires and collected 310 responses. Because a respondent evaluates two colleagues, data of 620 Japanese employees were collected. Elimination of unusable observations produces the sample of 548 Japanese employees. Among them, 100 were managers and 448 were non-managers. In the sample, 78.5 percent of employees are male, and 21.5 percent are female. Regarding the age, 10.4 percent were 20s, 46.9 percent were 30s, 31.6 percent were 40s, 10.2 percent were 50s, and 0.9 percent were 60s or older. Regarding respondents (who evaluated colleagues), 78.5 percent were male, and the average age was 44.0.

Measures

Work performance was measured by four items, which were based on items to measure in-role behavior adopted by Van Dyne and LePine (1998). The items ask whether colleagues fulfill assigned responsibilities and meet performance expectation (Van Dyne and LePine, 1998). Respondents were asked to rate work performance of two chosen colleagues regarding the four items. The four items were reverse-coded, and their scores were averaged to use for analysis. Cronbach's alpha for this scale was .935.

Oral skill is the abilities to support a spoken form of language, which consist primarily of speaking and listening abilities (Domínguez and Pessoa, 2005; Richards and Schmidt, 2010). Oral skill was measured by two items, which were based on items to measure English language proficiency adopted by Yamao and Sekiguchi (2015). Respondents were asked to assess speaking and listening abilities of two chosen colleagues. Literacy skill is the abilities to read and write in a language (Domínguez and Pessoa, 2005; Richards and

Schmidt, 2010). Literacy skill was measured by two items based on the measure adopted by Yamao and Sekiguchi (2015). Respondents were asked to evaluate reading and writing abilities of the two colleagues. These items were reverse-coded. The average value of speaking and listening abilities was used as a proxy for oral skill while the average value of reading and writing skills was used as a proxy for literacy skill. A correlation coefficient between speaking and listening was .885 while that between reading and writing was .906.

Communicative competence was measured by five items adopted by Mohr and Sohi (1995), which were originally developed to measure communication quality. Abilities to produce messages and interpret the received messages can affect the degree to which the intended meaning is conveyed to interlocutors and to which mutual understanding by interlocutors is achieved, and consequently influence communication quality (Ellis, 2008; Kassis Henderson, 2005). Accordingly, communicative competence of managers can be deduced from the degree of communication quality. Likewise, respondents were asked to evaluate the colleagues' communicative competence. The five items were reverse-coded, and their values were averaged to use for analysis. Cronbach's alpha for this scale was .924.

Professional competence was measured by three items, which was developed based on items to measure employee skill adopted by Park et al. (2003). The three items ask the level of skills and knowledge relevant to certain jobs (Park, Mitsuhashi, Fey and Björkman, 2003). It is assumed that these task-related skills and knowledge help managers understand the context and the content of discussions in the MNE (Karhunen

et al., 2018). In the same way as previous measures, respondents rated professional competence of the two colleagues. The three items were reverse-coded and then, averaged to use for analysis. Cronbach's alpha for this scale was .913.

Job relatedness was measured by one item that asks the degree of the closeness of the current job to the previous job of the colleagues. The item used a seven-point scale that ranges from 1 'very close' to 7 'very far'. The scores were reverse-coded to use for analysis. The education level was also measured by one item. Respondents were asked to rate the colleagues' education level using a seven-point scale that ranges from 1 'very high' to 7 'very low.' The values were reverse-coded to include in the analysis.

Analytical method

Fuzzy set qualitative comparative analysis (fsQCA) was employed as an analytical method (Dusa, 2019; Ragin, 2008). The QCA package of R was used for analysis (Dusa, 2019). The analytical framework of this study contains six factors that likely influence work performance of non-English-native managers. These factors are not assumed to be independent each other. For example, the education level of managers may affect their oral and literacy skills of English and professional competence (Becker, 1993; Björkman and Piekkari, 2009). fsQCA does not assume that factors included in the analysis are uncorrelated (Ragin, 2008). This study does not predict that each of six factors affects work performance independently. In addition, it assumes the possibility that several different combinations of the six factors produce an outcome. fsQCA allows combinations of six interrelated factors to yield an outcome, and has a capacity to find

multiple different causal conditions that consist of multiple factors (Fainshmidt, Witt, Aguilera, and Verbeke, 2020; Ragin, 2008). In comparison, regression analysis uses interaction terms to test a combination of factors as an independent variable. An interaction term of six variables likely encounters a problem of severe multicollinearity. In addition, interpretation of interaction terms becomes difficult as the number of factors included in the interaction term increases (Fainshmidt et al., 2020).

This study examines the effect of six causal factors on work performance in the two contexts, namely, in the context of managers and in the context of non-managers. It is possible that combinations of six factors that have a positive effect on an outcome are different between the two contexts. fsQCA is advantageous in conducting context-specific assessments of causal factors (Ragin, 2008). This study also does not assume a linear relationship between a cause and an outcome. For example, it expects that high oral and literacy skills of English do not always produce high work performance. Regarding a combination of six factors, the inverse of a combination of factors that causes a positive outcome does not necessarily produce a negative outcome, and a combination of factors that is different from the combination leading to a positive outcome may yields negative outcome (Fainshmidt et al., 2020; Fiss, 2011). fsQCA allows for causal asymmetry and in this regard, it is more advantageous than regression analysis (Fainshmidt et al., 2020; Fiss, 2011; Ragin, 2008). Considering these advantages, fsQCA is a suitable technique for this study.

Calibration

The abovementioned seven variables need to be calibrated to conduct fsQCA (Ragin, 2008). In the calibration process, the anchor points for full membership, full non-membership, and a cross-over point are determined (Ragin, 2008; Schneider and Wagemann, 2012). Using these anchor points, the seven variables are transformed to fuzzy sets (Fiss, 2011; Ragin, 2008). Except the education level, the values of 80 percentile, 50 percentile, and 20 percentile were used for full membership, a cross-over point, and full non-membership respectively. Regarding the education level, the values of 90 percentile, 50 percentile, and 10 percentile were used for full membership, a cross-over point and full non-membership respectively to avoid many cases to be included in full membership or full non-membership.

Results

Table 1 inserted about here

Table 1 shows descriptive statistics of and correlation coefficients among the seven variables to be used in this study. The parent firms of subsidiaries in the sample are mostly located in the US (59.9%), the UK (8.0%), Germany (7.3%), France (6.2%), China (5.1%) and Switzerland (4.2%). Industries of the parent firms are manufacturers (55.1%), non-manufacturers (36.0%) and financial institutions (8.9%). Regarding the positions of employees in the sample (i.e., colleagues evaluated by respondents), 18.2 percent are managers and 81.8 percent are non-managers. fsQCA was conducted by splitting the

sample into two subsamples, namely, the subsample of managers and the subsample of non-managers.

Table 2 summarizes the results from the subsample of managers. It illustrates sufficient conditions for high work performance on the left-hand side and sufficient conditions for low work performance on the right-hand side. The intermediate solution identified by fsQCA is given in Table 2. The complex solution does not allow any counterfactuals while the parsimonious solution incorporates all potential counterfactuals (Ragin, 2008). As a result, the complex solution becomes exceedingly intricate and the parsimonious solution becomes unrealistically simple (Ragin, 2008). The intermediate solution incorporates plausible counterfactuals, which makes it most suitable for theoretical interpretation (Fiss, 2011; Judge, Fainshmidt and Lee, 2014; Ragin, 2008). Generally, a minimum consistency of 0.75 is recommended as an acceptable solution (Fiss, 2011: Ragin, 2008). In this study, a more stringent threshold of 0.85 was applied (Judge et al., 2014). Three configurations that lead to high work performance were derived from fsQCA. Elements within a configuration may have a different degree of impact on an outcome (Fiss, 2011; Judge et al., 2014). Hence, using a parsimonious solution and an intermediate solution, each element was distinguished into core conditions and peripheral conditions (Fiss, 2001). Core conditions appear in both a parsimonious and an intermediate solution while peripheral conditions appear only in an intermediate solution (Fiss, 2011). Core conditions have a strong causal relationship with an outcome while a causal relationship of peripheral conditions with an outcome is weaker (Fiss, 2011). A large circle in Table 2 represents core conditions while a small

circle does peripheral conditions (Fiss, 2011; Ragin and Fiss, 2008). The graphic symbol, ● denotes the presence of a condition, while ⊗ denotes the absence of a condition (Fiss, 2011; Ragin and Fiss, 2008). Blanks indicate 'don't matter' conditions.

Table 2 inserted about here

In Table 2, core conditions that have a strong impact on high work performance of managers are literacy skill and professional competence. Three configurations shown on the left-hand side of Table 2 all consist of a combination of literacy skill and professional competence. The solutions demonstrate that the simultaneous presence of both literacy skill and professional competence has a strong causal relation with high work performance of managers. In configurations 1a and 2a, oral skill appears as a peripheral condition to achieve high work performance of managers. This implies that for managers, literacy skill is more important than oral skill, which is consistent with the prediction of this study. It can be interpreted that job relatedness and educational level complement professional competence to capture the context of discussions appropriately. As shown in configuration 3a, when both close job relatedness and high education level exist simultaneously, communicative competence replaces oral skill.

The inverse of configurations 1a to 3a do not provide sufficient conditions for low work performance because of causal asymmetry assumed in fsQCA (Ragin, 2008). The right-hand side of Table 2 illustrates the intermediate solution for low work performance of managers. It demonstrates that core conditions for low work performance are the

absence of professional competence, oral skill and communicative competence. In configurations 1b and 2b, the absence of professional competence is the only core condition, which implies that managers who fail to understand the context of discussions due to a lack of task-related knowledge less likely outperform. Configuration 3b shows that the simultaneous absence of oral skill and communicative competence has a strong causal relation with low work performance of managers. It can be interpreted that a lack of a capacity to communicate by synchronous media is critical for managers.

Table 3 inserted about here

Table 3 reveals sufficient conditions for high work performance of non-managers on the left-hand side and those for low work performance on the right-hand side. Configurations 1c to 4c indicate that conditions for high work performance of non-managers are totally different from those of managers. Core conditions for high work performance of non-managers include communicative competence, professional competence and education level. Oral and literacy skills of English do not have a strong causal relation with high work performance of non-managers. Configurations 2c and 3c reveal that an ability to appropriately encode and decode messages produces high work performance. Configuration 2c has oral skill as a peripheral condition in combination with communicative competence. It can be interpreted that for non-managers, an ability to communicate effectively using synchronous media is important, which is consistent with the prediction of this study. Configurations 1c and 4c can be interpreted that a capability

of non-managers to understand a situation in the context by using task-related or general knowledge enables them to perform better. The right-hand side of Table 3 indicates sufficient conditions for low work performance of non-managers. Configuration 1d shows that the absence of professional competence by itself leads non-managers to low work performance. Configurations 2d and 3d can be interpreted that when non-managers lack communicative competence, they fall into low work performance if they lack either literacy skill or a combination of oral skill and education level.

Discussion

This study examined how English proficiency of non-English-native managers affects their work performance in the context of foreign subsidiaries of MNEs. In this study, English proficiency was assumed to be a multidimensional construct. In addition, positions of non-English-native managers in foreign subsidiaries were accounted for. Introducing the two factors enabled this study to demonstrate that depending on positions in the foreign subsidiary, required English skill varies. The results suggested that managers are required to have high literacy skill to implement their tasks. Oral skill is a peripheral condition for high work performance of managers. In comparison, English skill is less important for non-managers. Oral skill appears as a peripheral condition while literacy skill does not appear to affect work performance of non-managers.

This study found that literacy skill is more important than oral skill for managers to conduct their tasks effectively. Compared to non-managers, managers frequently interact with the headquarters as well as sister subsidiaries and are more involved in complex and

critical decision-making. In synchronous communication, such as phone calls and video conferences, language barriers make it challenging for non-English-native managers to think, reason and decide while speaking and listing (Tenzer and Pudelko, 2016; Volk et al., 2014). During synchronous interactions, working memory load increases to process listening, understanding and responding to complex issues expressed in a foreign language (Tenzer and Pudelko, 2016; Volk et al., 2014). An adequate capacity of working memory may not be allocated to thinking, reasoning and deciding although they demand high cognitive resources and activities (Tenzer and Pudelko, 2016; Volk et al., 2014). To make logical and appropriate decisions, managers review the content of discussions with the headquarters, read related documents, and think thoroughly after the synchronous interactions end (Dennis et al., 2008; Louhiala-Salminen and Kankaanranta, 2011). In this situation, working memory is well allocated to thinking, reasoning and deciding (Tenzer and Pudelko, 2016; Volk et al., 2014), which can lead to better decisions. Then, local managers write to the headquarters regarding their decisions. Accordingly, to make decisions on complex and critical issues, literacy skill is more required than oral skill to utilize asynchronous media (Tenzer and Pudelko, 2016).

In comparison, non-managers tend to be involved in day-to-day operational issues, which are more routinized and less equivocal than issues addressed by managers. Concepts, expressions and terminology related to operational issues are limited and well shared by colleagues responsible for them (Klitmøller and Lauring, 2013). Most interactions with colleagues can be conducted via synchronous media; thus, literacy skill of English is less required for non-managers. In comparison, as configuration 2c in Table

3 indicates, oral skill is relatively important for non-managers. These arguments suggest that English proficiency needs to be treated as a multidimensional construct to understand the functions of English proficiency to mitigate the language barriers inside MNEs. This study demonstrated which dimension of English proficiency contributes more to high work performance. In addition, it suggested that the degree of importance of English proficiency varies across positions in a foreign subsidiary. Depending on the nature of tasks or roles in an organization, a different aspect of English proficiency is required. To advance an understanding of language issues in MNEs, research on language barriers needs to place more focus on the multidimensionality of language proficiency and how each dimension of language skills mitigates language barriers.

This study elaborated media choice theory under language barriers by accounting for the multidimensionality of English proficiency. It suggested that oral skill and literacy skill function differently in communication under language barriers depending on the complexity of content. When issues of interest are less complex and equivocal, communication under language barriers can be done by using synchronous media (Klitmøller and Lauring, 2013). Convergence of the meaning can be reached through the conveyance of information in synchronous media because the contents of information are less complex and the interpretation of information can be made using prior shared knowledge (Dennis et al., 2008; Klitmøller and Lauring, 2013). Accordingly, when issues are less equivocal, oral skill of English is essential for effective communication through synchronous media. In comparison, when issues of interest are more complex and equivocal, communication using asynchronous media facilitates the convergence of the

meanings under language barriers (Klitmøller and Lauring, 2013; Tenzer and Pudelko, 2016). Information can be exchanged by using synchronous media for complex issues; however, the complexity of the issues and the language barriers may inhibit the convergence of the meaning (Klitmøller and Lauring, 2013; Tenzer and Pudelko, 2016). This is ascribed to heavy cognitive load due to the processing of linguistic information for non-English-native local managers (Tenzer and Pudelko, 2016; Volk et al., 2014). Reprocessability of asynchronous media enables local managers to decode information appropriately and its rehearsability enables them to encode information properly while cognitive resources are sufficiently allocated to cognitive activities to achieve the convergence of the meanings (Dennis et al., 2008; Volk et al., 2014). When issues are complex and equivocal, literacy skill of English promotes the convergence of the meanings through asynchronous media under language barriers. From these arguments, this study proposes the appropriate combination of the nature of the content, the communication media, and the language skill. Relevant language skill and effective communication media change depending on the complexity of the content of discussions. When language barriers are present and the content discussed is less complex, synchronous media is effective, which is supported by oral skill of English. On the other hand, when language barriers are present and the content discussed is complex, asynchronous media is effective, which is supported by literacy skill.

Previous studies on language barriers have focused on language proficiency as a primary factor to mitigate language barriers (Björkman and Piekkari, 2009; Harzing and Pudelko, 2013; Peltokorpi, 2015). This study found two other abilities to overcome

language barriers, namely, an ability to encode and decode messages by accommodating to acc particular context or situation and an ability to understand a context or a situation. For non-managers, communicative competence appears more important than English skills as shown in Table 3. For managers, while communicative competence is a peripheral condition for high work performance, the absence of communicative competence is a core condition for low work performance. The results of this study suggest that although knowledge of grammar, phonology, syntax and semantics are still important for communication under language barriers, an ability to use English appropriately in context-specific interactions is also fundamental (Karhunen et al., 2018; Louhiala-Salminen and Kankaanranta, 2011). During the interaction, local managers are required to craft and interpret messages while accommodating to a specific context or situation to reach the convergence of the meanings (Dennis et al., 2008; Tenzer and Pudelko, 2016). Communicative competence supports managers' activities to converge the meanings under language barriers. In addition, an ability to capture a specific context or situation complements communicative competence in the process of encoding and decoding messages. Regardless of the positions in foreign subsidiaries, the presence of professional competence is a core condition for high work performance and the absence of professional competence is a core condition for low performance. The content of communication within an MNE is task-specific or MNE-specific (Aichhorn and Puck, 2017a; Louhiala-Salminen and Kankaanranta, 2011). To understand the content correctly, task-related, expert knowledge of a specific field is required for effective work performance (Aichhorn and Puck, 2017a; Louhiala-Salminen and Kankaanranta, 2011).

Such knowledge promotes an understanding of concepts, ideas, expressions and terminology specific to the issue of interest and supports the encoding and decoding of messages (Aichhorn and Puck, 2017a; Karhunen et al., 2018; Louhiala-Salminen and Kankaanranta, 2011). Hence, to advance an understanding of the effective communication under language barriers, this study calls for more attention to an ability to encode and decode messages and an ability to understand a specific context and situation in which information flows.

The results imply that there is a distinction between competences required for mangers and those for non-managers. The distinction may cause high-performing non-managers to fall into low work performance when they are promoted to managers. The education level is a core condition for non-managers to achieve high work performance. This may be because issues discussed by non-managers are less complex and can be understood without expert knowledge of a specific field. The education level, however, turns to be a peripheral condition for managers. Communicative competence appears as a core condition for non-managers whereas it is less important for managers. Notably, when high-performing non-managers with high communicative competence are promoted to management positions, their communicative competence does not likely work as a successful factor. In addition, literacy skill is not required for non-managers to perform more effectively. If non-managers who do not have literacy skill are promoted to management positions, they may experience difficulty meeting the requirements for the positions. Therefore, certain skills and competences that made non-managers outperform do not work in upper positions in the hierarchy. Non-managers need to be involved in

acquiring new skills that work in management positions.

Accordingly, these results provide practical implications. Different criteria to hire local employees should be adopted depending on their positions. Professional competence should be included in the criteria for both managers and non-managers. Although foreign subsidiaries of MNEs may prefer to hire English proficient employees, English skills should not be highly valued when hiring non-managers. In comparison, when hiring managers of foreign subsidiaries, English proficiency, particularly literacy skill, should be placed more weight on. If MNEs use the same criteria to hire local employees irrespective of positions in foreign subsidiaries, hired employees may fall into malfunction and leave the subsidiaries in a short period.

Conclusion

This study has several limitations. The sample size of this study is small, particularly for the subsample of managers. In addition, the data were collected from a single country. The results reported in this study may not hold when data are collected in different countries. Replication studies are necessary by using samples of parent firms and subsidiaries operating in different countries or different industries. This study primarily focused on language proficiency, communicative competence and professional competence. Future research should be conducted including other possible factors that affect local managers' work performance, such as cultural embeddedness or type of occupation.

Despite the limitations, this study makes several contributions to IB research on

language barriers. This study introduced the multidimensionality of language proficiency and the positions in foreign subsidiaries into the analytical framework. It found that literacy skill of English is more important for managers to achieve high work performance and that English proficiency is less important for non-managers. The findings were theoretically explained from the perspectives of media choice theory and the insight from neuroscience. Related with this point, this study elaborated media choice theory and proposed the appropriate combination of the complexity of the content, the communication media, and the language skill under the presence of language barriers. This study also found that communicative competence and professional competence are important to mitigate language barriers. These competences work to understand the specific context of the interactions and encode and decode messages appropriately in the context in MNEs. Further, this study indicated that managers who are internally promoted may not necessarily achieve high work performance. It gives practical implications that MNEs should provide managers and non-managers with different training that can be adequate for each position. Finally, it is significant that this study was conducted by combining the expertise of applied linguistics and international business across disciplines. It enables this study to advance research on language barriers in MNEs from multifaced perspectives.

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Table 1. Descriptive statistics and correlation coefficients

		Mean	S.D.	1	2	3	4	5	6
1	Work performance	5.134	1.164	1.000					
2	Oral skill	5.182	1.395	0.492	1.000				
3	Literacy skill	5.148	1.383	0.499	0.919	1.000			
4	Communication skill	4.974	1.122	0.790	0.518	0.530	1.000		
5	Professional skill	5.147	1.157	0.874	0.537	0.544	0.768	1.000	
6	Job relatedness	5.535	1.251	0.321	0.117	0.136	0.286	0.331	1.000
7	Education level	5.182	1.174	0.696	0.550	0.540	0.637	0.716	0.270

Table 2. The results of fsQCA for managers

	High work performance			Low work performance		
Configurations	1a	2a	3a	1b	2b	3b
Oral skill	⊗	⊗				●
Literacy skill	⊗	⊗	⊗			•
Communicative competence			⊗	•		●
Professional competence	⊗	⊗	⊗	●	●	
Job relatedness	⊗		⊗			
Education level		⊗	⊗		•	•
Consistency	0.966	0.961	0.978	0.937	0.934	0.923
Raw coverage	0.826	0.735	0.662	0.703	0.700	0.340
Unique coverage	0.131	0.041	0.013	0.099	0.096	0.035
Solution consistency	0.953			0.908		
Solution coverage	0.879			0.834		

Table 3. The results of fsQCA for non-managers

	High work performance				Low work performance		
Configurations	1c	2c	3c	4c	1d	2d	3d
Oral skill		⊗					●
Literacy skill						●	
Communicative competence		⊗	⊗			●	●
Professional competence				⊗	●		
Job relatedness			⊗	⊗			⊗
Education level	⊗						●
Consistency	0.878	0.927	0.902	0.900	0.871	0.880	0.894
Raw coverage	0.647	0.620	0.734	0.810	0.882	0.711	0.617
Unique coverage	0.017	0.016	0.019	0.060	0.190	0.024	0.009
Solution consistency	0.809				0.820		
Solution coverage	0.915				0.944		

The Role of Orientation Training in Organizational Socialization Process: An Empirical Evidence from Pharmaceutical Company in China

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The Role of Orientation Training in Organizational Socialization Process: An Empirical Evidence from Pharmaceutical Company in China

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Abstract

Orientation training plays a critical role in the newcomer socialization process, providing employees with knowledge, skill, ability needed to perform roles and tasks in a new work setting. However, few studies have addressed its roles and underlying mechanisms, especially in the relationship between formal training program and the processes of socialization. Integrating training theory, the author examines the effectiveness of orientation training program on socialization outcome in a US pharmaceutical company in China. We obtained longitudinal data from 1184 new employees during their first year of employment, including pre-training record, trainee reactions, trainee engagement, cognitive learning, skill acquisition and turnover records within first years, and annual sales performance of 226 newcomers. The significance of this study is examining the role of formal orientation training in the process of newcomer organizational socialization.

Introduction

With increasing career mobility, organizations deal with newcomers more often than before. To ensure newcomers adapt to the new position smoothly and develop positive working attitude and necessary task skill, companies are thinking proactive way they are well socialized by investing millions of dollars in both traditional and innovative approaches (Laurano, 2013). In fact, considerable researches have confirmed that a good socialization activity generates noticeable benefits on organizational outcomes, such as facilitating new hire engagement, getting newcomer productive more quickly, reinforcing employee retention.

Generally, newcomers are socialized through either individual proactive behavior or organizational support. Individual tactics assumed that newcomers can be proactive agents throughout OS process, including self-learning, information seeking and networking behaviors (Ostroff & Kozlowski, 1992). While organizational tactics refer to company-driven means assisting newcomers to be socialized (Ashforth, Sluss, & Saks, 2007), including informal (i.e. distributing new hire checklists, mentoring, and concealing), and formal means (i.e. formal structure trainings). This study focuses on the socialization through formal organizational tactics—onboarding training.

Despite informal and individual approaches to learning have drawn increased attentions, formal training is still the main approaches intensively used to socialize newcomers (Feldman, 1989; Klein & Weaver, 2000; Saks, 1996). Survey showed that over 90% of organizations conduct formalized training in newcomer entry process (Anderson et al., 1996). Although benefits of training have been recognized

gradually nowadays, as increasing of turnover rates during the recent decade, companies are worried at whether their huge investment on onboarding program would be waste on employees who quit but with short tenure. Thus, top managements need more detail knowledge on the effectiveness of orientation training as a newcomer socialization strategy, and when and how to design and deliver training for onboarding has a best effect over what newcomer actually learn, so that they become effective insiders (Bauer & Erdogan, 2014; Saks, 2015; Spagnoli, 2020)

OS refers to the process of transition from being organizational outsiders to being insiders (Bauer, Bodner, Erdogan, Truxillo, & Tucker, 2007), including three major parts : 1) adjusting to the performance demand of roles, the culture of the work groups, and organization; 2) acquiring job knowledge and skills; and 3) being integrated within the organization and being accepted by colleagues (Bauer & Erdogan, 2014; Chao, 2014; Ellis, Nifadkar, Bauer, & Erdogan, 2017; Louis, 1980; Wanberg, 2012). Traditional perspectives of socialization research and theory has primarily addressed assimilation of newcomers in norm, value, and culture of the organization (Ostroff & Kozlowski, 1992). However, more recent approaches have considered newcomer OS as a learning process in which newcomers acquire various information and learn desired behaviors to become proficient and effective organizational members (Ashforth et al., 2007; Bauer et al., 2007; Cooper-Thomas & Anderson, 2002; Klein & Weaver, 2000; Ostroff & Kozlowski, 1992; Spagnoli, 2020). A successful adaptation depends on learning different domain through socialization practices (Haueter, Hoff Macan, & Winter, 2003; Spagnoli, 2020). Recent empirical studies often measure newcomer adjustment more closely as learning which is argued to be a primary or proximal outcome of OS (Ashforth et al., 2007). In other words, OS process involving different learning activities may become salient as individual adapt to their work.

Organizations commonly use informal and formal onboarding practices to help newcomer reduce their degree of uncertainty and anxiety in new work environment, including mentoring, coaching,

counseling, and orientation training. Orientation training is recognized as the most common organizational socialization (OS) practices by which newcomers learn knowledge, skill, ability to perform tasks and adjust to new roles in a particular company. From uncertainty reduction theory standpoint, orientation training is usually the first socialization experience for newcomers, and reduces the perceived their uncertainty more quickly than other tactics through learning necessary skill and acquiring useful information, such that newcomer could better interact with their work and other peer workers in future (Feldman, 1989; Saks, 1996). In addition, orientation training program not only offers a positive learning environment during the first several months of socialization, but triggers spillover effects on subsequent learning and facilitates other OS practices after the program finish (Chao, 2014; Saks & Ashforth, 1997b; Sitzmann, Brown, Casper, Ely, & Zimmerman, 2008; Tannenbaum, Mathieu, Salas, & Cannon-Bowers, 1991). As increasing learning reduces uncertainty, newcomer have more confidence to perform their task and more likely to stay with their organization longer.

The main socialization content of orientation training consists of broader organization issue and specific job knowledge and skill that newcomers should acquire for performing their role and task (Feldman, 1989; Klein & Weaver, 2000). The current study focuses on off-site onboarding training oriented to job-centered domain, including initial job skill and knowledge. Surprisingly, there has been limited knowledge on the linkages between onboarding training and newcomer socialization, particularly on how dose training transfer into newcomer learning, and yield desired OS outcomes, such as newcomer performance and early turnover. An evidence for process of formal training during OS should make a fruitful contribution to socialization and training literature.

Early OS researches have used different approach to measure training variable in examining the effectiveness of formal training. They assumed training would be directly related to distal OS outcomes, such as commitment, performance, psychological well-being, and turnover. However, the results are

mixed, and some studies even found weak or non-significant relationship between formal training and those socialization outcomes (Louis, Posner, & Powell, 1983). Saks (1996) pointed out that their failure to find clear support for the relationship may be attributed to the limitation of measurement for training. Thus, instead assessing training availability by a yes/no response in previous studies, he use the amount and helpfulness of training to capture the extent of training newcomer received, and the result showed that both two training indicators were related to positive job attitude (i.e., job satisfaction, commitment, turnover intention).

Recent OS studies tended to treat learning as a core mechanism to explain the linkage between formal training and socialization outcomes. With the importance of learning role in OS process has been widely accepted, several researchers attempted to develop scales to measure newcomer learning within distinct socialization domains (Chao et al.,1994; Haueter et al., 2003). Klein and Weaver (2000) used Chao et al. (1994) socialization scale to measure the extent to which newcomer have learned in six domains. In their quasi-experimental design, three-hour orientation training focusing on organizational-level content was provided for 55 newcomers who participate voluntarily of the 116 samples. The result showed that newcomer who attend the program had higher scores on learning domains (i.e., goals/values, and people) which mediate the effect of the attendance of orientation training on commitment. In fact, some studies have also been proven the mediation role of learning between formal training and OS outcome (Cooper-Thomas & Anderson, 2002; Hart & Miller, 2005), the results providing compelling evidence for the idea from pervious researches that the nature of OS is a learning process.

Although the effectiveness of new employee training has been somewhat proven, there are several limitations in existing OS literature. First, previous OS studies tended to emphasize on whether or not newcomers received training or the amount of training to explore the basic nature of training-socialization relationship, so that we hardly figure out underlying mechanisms between this relationship and offer

implications about how to improve onboarding strategies. The incomplete measure of training tactics is limited because training is a complex process with multiple aspects that may influence the traditional linkage between training event and socialization. Therefore, the study on OS focusing on training practices may benefit from the knowledge of training literature, especially from training evaluation research. The two literatures can be integrated because newcomer learning is the most primary objective and important outcomes for both training and socialization (Saks, 2015).

Second, most of the empirical studies on OS often collected training data without distinguishing onboarding training from organizational-level or job-centered training program clearly (Klein & Weaver, 2000). In other experimental-based studies, orientation training was usually designed with short length (average several hours) based, and most of their samples are graduated or MBA students. Thus, additional research is needed to examine in real working scene, particularly in those with the orientation training feathered multi-days, offsite, and the socialization content of orientation training should be separated.

Furthermore, the self-report measurement and cross-sectional design among most of empirical studies run the problem of common method bias. The use of retrospective data has a potential limitation in terms of measuring training by asking participant to recall their training experience and other relevant outcomes. Thus, it is warranted to figure out the causal inference between training and OS outcomes in depth by using longitudinal design and objective data source.

This research was conducted in the context of US pharmaceutical company where intensive offsite training program for salesperson onboarding prevail. With 40 years of the reform and opening in China, an increasing number of multinational corporations have entered into Chinese pharmaceutical markets. Due to the characteristic of talent shortage in sales intensive industry, how to remain and socialize new salespersons becomes important issue for pharmaceutical company. Pharmaceutical organizations often conduct orientation training taking multi-days to couples of months for socializing new sales on different

domain, especially on their job/task relevant KAS which coordinate with organization own values. For example, a company operating generic drug business will concentrate on concrete indicators of success such as sales volumes, while a company running new drugs will be prone to employ problem-solving sale approach for gaining reputations in particular treatment areas. In general, there are two main purpose of orientation training program in pharmaceutical organizations: 1) providing positive environment to support newcomer adjustment for preventing early turnover, 2) helping newcomers master job knowledge and skill aligned with company principles to achieve desired outcome.

The author attempts to apply training theory to examine the effectiveness of orientation training program on socializing newcomers in US pharmaceutical company in China. In particular, this longitudinal study investigates 1) how the availability of pre-training activities affect subsequent training performance, and 2) how newcomer perception and proactive behavior to onboarding training affect the socialization outcomes proximal outcome of newcomer learning (socialization content) , and explores 3) whether pre-training activity, training (i.e., trainee reactions, trainee engagement), and newcomer learning (i.e., skills and knowledges acquisition) could predict distal outcome of OS (job performance and turnover) within first year of newcomers.

There are several contributions to previous research on training and socialization. First, the present study extends OS literature through examining the role of orientation training on newcomer OS process, particularly applying the training literature. Then, the present study measured training as newcomer reaction to training sessions and their extent to engagement rather than simply availability, amount, and perceived training helpfulness or just training fulfillment. In addition, the author also used objective indicators to rate newcomer learning to avoid the common method bias of self-report. By using those training indicators and rating newcomer learning, not only the mechanisms underlying the relationship between training and newcomer learning would be clarified, but the reason why orientation training

benefits newcomer socialization could be examined. Finally, in the present study, the data of newcomer retention and performance during the first employment year was obtained from company database and a company manager. This one-year longitudinal design overcomes the weakness of cross-sectional methodology among most of pervious researches.

Literature review

Trainee reactions

Up to date, the area of OS and training have been studied independently even though they overlap largely in many aspects, as the primary objectives of both training and OS are learning (Saks, 2015). On the one hand, learning from training literature can provide a valuable new insight for expanding our understanding of OS process. On the other hand, by adopting socialization theory can build a stronger theory to cover the lacked grounding in theory of training evaluation.

Reactions, a measure of how trainees feel about various aspects of training program, are the most popular approach for training evaluation criteria in practice (Leach & Liu, 2003). In Kirkpatrick's (1959, 1996) opinion, reactions were considered as a primary outcome of training, such that it can capture positive learning, and learning can further shape positive work attitude and behaviors. Trainers usually conduct survey on trainee reactions after class to assess the quality of training and to suggest direction for future improvement. Despite surveying reactions remain a widespread apporach in practice, some researchers constantly pointed out several limitations of using reactions as effective criteria in training evaluation due to the mix result of reaction-learning relationship among empirical researches. Several training researchers suggested that reactions to training are not a strong predictor of learning (Noe & Schmitt, 1986; Warr & Bunce, 1995). Some studies even have reported that reactions have no effect on learning (Kraiger, 2002; Mathieu, Tannenbaum, & Salas, 1992). The mixed findings were mainly

attributed to a result of the unidimensional constructs of trainee reactions and failing to distinct the effect of reaction on different learning outcome, such as knowledge, skill, attitude, and behaviors (Kim, Park, Lavelle, Kim, & Chaudhuri, 2020; Noe & Schmitt, 1986; Tannenbaum et al., 1991; Warr & Bunce, 1995).

The critiques of reaction suggest that a new conceptual measurement of trainee reactions is warranted. For example, Alliger, Tannenbaum, Bennett, Traver, and Shotland (1997) have suggested to distinguish reactions into affective reaction and utility judgement, as the result of their mate-analysis, only utility reaction was related to learning ($r = .26$) and transfer ($r = .18$). It is assumed that when trainee enjoy a training (affective), much effort will make to learn, and when trainees perceived more utility on future work (utility), they will be more motivated to involve and interact to trainer and other trainees during training. In the adult training context, expectancy theory would suggest that high judgment of utility towards training lead trainees to exert efforts to learning and attaining desired outcomes. Similar to utility or affective reaction in training literature, OS research often use helpfulness of training or training fulfillment as an important antecedent of newcomer learning outcomes as well as subsequent performance.

With respect to the effect of reaction on distinct learning outcome, A mate-analysis from Sitzmann et al. (2008) reported that the effect of reaction was fairly stronger on post-attitude outcome than cognitive learning outcome. Recently, Bezrukova, Spell, Perry, and Jehn (2016) conducted a mate-analysis to examine the effect of reactions on different learning. The result revealed a strong positive relationship between reactions and cognitive learning, but weak effects on behavioral learning. Taken together, the appropriate taxonomy of reactions and learning construct are precondition of training evaluation. This study attempts to find the role of orientation in OS process by applying reaction theory derived from training literature.

Pre-training factors

Pre-training environment have been discussed in training literature including pre-training interventions, trainee characteristic, and job attitude (Salas, Weaver, & Shuffler, 2012). This study will focus on two antecedent of training performance: pre-training coaching and human capital. Pre-training coaching is an informal learning activity that has been commonly used as a training practice before the new employee training. Pre-training activities have positive effect on learning outcomes by gaining trainees' attention (Lung & Dominowski, 1985; Phye & Sanders, 1994), setting their expectancies (Hicks & Klimoski, 1987; Salas et al., 2012), reducing their anxiety level during the training (Sitzmann et al., 2008; Bauer et al., 2007), and enhancing self-efficacy or preparing trainees with the necessary knowledge and basic skills (Tannenbaum & Yukl, 1992). It has been proven that trainees with more support for upcoming training were highly motivated when they enter training (Cohen, 1990). By previewing the information of orientation program and the basic knowledge on subsequent training, newcomer who receive a pre-training coaching should be less anxious during training with less "reality shock", and more motivated to learn, which lead to better adjusting to future training (Hicks & Klimoski, 1987). Although researchers in the field have discovered various pre-training intervention to enhance engagement in learning process based on experimental design and/or in educational settings, little has provided evidence on occupational field based. Although the importance of pre-training has been known, major company hardly offers one-on-one instruction to all employee before formal training especially to the employee located in remote area. Thus, the author proposes that the availability of pre-training coaching can affect training performance in future training including reaction, engagement, and learning.

Similarly, human capital has been examined in OS literature as a trainee characteristic facilitating newcomer learning (adjustment) on job/task content domain, based on the education and work experience of newcomers. This paper focuses on preentry knowledge and job level as two newcomer human capital that can promote proximal and distal outcomes of OS. Newcomer human capital including knowledge

newcomers held and their working experience (job level) before entry can affect the effectiveness of entry tactics (Louis, 1980). In addiotion, Kammeyer-Mueller and Wenberg (2003) argued that preentry knowledge can also exhibit the matching quality of job-individual in extent. (Kammeyer-Mueller & Wenberg, 2003). In fact, a number of empirical researches have proven the relationship between preentry knowledge and proximal newcomer adjustment (Kammeyer-Mueller & Wenberg, 2003; Louis, 1980; Choi & Roulston, 2015). They also supposed that higher human capital generates plenty of resource to help them better adjust which in turn lead to distal OS outcome.

Hypothesis 1a: pre-training coaching have significant positive effect on trainee overall reactions, engagement, and learning.

Hypothesis 1b: pre-training human capital including preentry knowledge and job level have significant positive effect on trainee overall reactions, engagement, and learning.

The mediation role of leaner engagement

Despite much of training research addresses the passive role of newcomer, consistent with portraying in the research on individual-driven OS, newcomers can also play active agents during the formal training provided from organizations (Fisher & Ford, 1998). Noe, Tews, and Dachner (2010) pointed out that the traditional training research has been limited by its overemphasis on instruction matters, such that the active role of newcomer in formal training was neglected in their research model. Although literature suggests that newcomers' perception of training supplied by the organization contribute to OS learning, how training variables through what process they affect newcomer OS learning during orientation training has been neglected in empirical OS learning research. Exploring this underlying process is important because it could offer a practical approach to evaluating orientation training as an OS practice. Drawing

on the knowledge on proactive behaviors OS, newcomer learning engagement during the training event is introduced into this relationship. It is assumed that reaction to training is related to newcomer engagement during the training, which in turn promotes newcomer learning in OS process.

Trainee engagement, an extent to involvement that exhibits by proactive, initiative, persistent behaviors with training assignments (Brown, 2005; Ainley, Hidi, & Berndorff, 2002), is the psychological process examined across a wide range of literatures including education, cognitive science, and organizational behavior (Noe et al., 2010; Fisher & Ford, 1998). The application of learner engagement theory can offer new implications for understanding how training context or interventions are related to learning outcome. Affect theory (Weiss & Brief, 2002), suggest that affective reactions promote learning, and this positive relationship should occur depend on learner engagement produced by enjoyable experienced during training. Affective experience towards distinct aspect of training and the perceived helpfulness of training trigger a series of psychological state, such as concentration, engagement, and proactive effort (Brown, 2005; Kim et al., 2020). This suggest that when newcomers enjoy and perceive utility of the training, they will make efforts to learn more, and be motivated more to participate in training sessions (Leach & Liu, 2003).

In the educational context, Ainley et al. (2002) have examined how psychological state mediated between interest and learning in the interactive computerized experimental environment. As a result, the psychological state including subjective affect and persistence effort linked interest and learning among their 117 student samples. Specifically, interest was related to affect, affect to persistence, and persistence to learning. Kim et al. (2020) also incorporated learning engagement in their model of reaction and confirmed the significant relationship of trainee reaction functions in linking training contexts and outcomes in the Korea occupational training context. In particular, they found that reactions and pretraining motivation triggered learners' engagement and facilitated their learning performance.

However, they did not examine the relationship among reaction, participation behavior, and learning performance.

Brown (2005) have provide a nomological network centering on trainee reactions to explain the process of learning via a series of psychological experience. In his model, engagement was treated as a learning process between reaction and learning and organizational outcomes. His model supposed that leaners who have high level of reactions present high level of engagement which in turn generates learning although the mediation relationship was not actually examined in the subsequent empirical research. On the basis of affect theory and the ideas on those reaction models, I propose the relationship among trainee reactions, engagement, and learning outcome as below:

Hypothesis 2: Trainee engagement mediates the relationship between reactions and newcomer learning.

Organizational socialization outcomes

The early stage of employment is one of the most critical phases of OS. Because employees are more vulnerable and their attitude and performance proficiency can be easily influenced during the initial stages, this paper investigates the newcomer OS process across first years of entry. During this stage, newcomer gather work-related resource to improve job performance, and determine whether they stay.

Numerous researches has confirmed that institutionalized tactics are associated with lower role ambiguity, lower anxiety, performance and intent to quit (Ashforth & Saks, 1996; Laker & Steffy, 1995; Saks & Ashforth, 1997b).

Onboarding training particularly works on enhancing newcomer's ability to improve performance, and attenuating anxiety to prevent turnover at early stage (Morrison, 1993a; Saks 2015). For example,

some OS studies have been proven that training utility and training satisfaction of the newcomer were significantly related to post-training organizational commitment, job attitude, self-efficacy, anxiety, job performance, and turnover intention (Saks, 1996; Tannenbaum et al., 1991). According to the uncertainty reduction theory, skill, knowledge, and information obtained from orientation training can be a resource for adaptation to unfamiliar environment, such that newcomer can better cope with job task, make a better adjustment to their new role in the new work setting. Mastering these different types of skill and knowledge can ease the process of adjustment, which in turn, affect different outcome of newcomer OS such as job satisfactions, performance, and early turnover (Bauer & Erdogan, 2014; Chao, 2014). However, the limitations of cross-sectional design and self-report outcome make previous studies impossible to determine whether training was effective in real working-field and the extent to which actual organization performance can be improved. More objective and longitudinal data collected through observation and organization records are required (Cooper-Thomas & Anderson, 2002; Ashforth & Saks, 1996).

In addition, the indicators of OS success should fit into the criteria of organization interest. For example, in highly individualistic culture, job performance might be an appropriate indicator, whereas in a collectivist culture, social integration could be more important OS outcome (Cooper-Thomas & Anderson, 2002). Thus, this study uses newcomers first year performance and early turnover as the two main OS outcomes according to the aim of onboarding training in pharmaceutical company.

Therefore, hypotheses are proposed as follows:

Hypothesis 3a: Newcomer retention within first employment year can be predicted by training variable including availability of pre-training, trainee reaction, engagement, acquisition of knowledges and skill.

Hypothesis 3b: Newcomer sales performance can be predicted by training variable including availability of pre-training, trainee reaction, engagement, acquisition of knowledges and skill.

Methods

Samples

Given that the socialization (learning process) develops over time, the longitudinal data of orientation training consisting of 1184 new employees was obtained from a US pharmaceutical company operating in China during their first year of employment. All 1184 samples had joined the organization during the period of 2012 to 2014. The data was collected in three timelines: Pre-training information were collected before formal training (T0) including preentry test score (N=1148) and availability of pre-training activity; Few mouth after hiring during orientation training program (T1), newcomers were asked to report their reaction to the skill section at the end of that section, and their extent to which they were engaged in training session and learning performance was rated by trainers. Time 2 (T2) data was collected one year later after organizational entry, including the information of whether the newcomers remain or leave (N=1033). In addition, annual job performance of the newcomers (226 out of 1184 participants) was provided by a district sales manager.

The main functions of the orientation training include organizational-level information and specific and general skill and knowledge which are important for future performance in the company. Total 37 classroom-setting training sessions conducted in Beijing with 1184 new employees during the period of 2012 to 2014. 72% of participants were entry-level (level 1) sales representative, 18% were employed in metropolitan area and 53% were male. The age and education information were not allowed to be provided due to the protection of personal privacy.

The orientation program sessions were scheduled approximately 2-3 month after organization entry.

Table 1 shows the agenda (6 days) of orientation training. Except welcome and introduction from the top managements, the orientation training consisted of three main sections: organization information (half day), knowledge section (two days) and skill section (three days), and at the end of the skill section, trainees are asked to fill the questionnaire for their reactions to skill sections (presentation and skill). Because except for the learning of regulation of the industry, the training data provided by the company had not recorded any learning information about organizational issue section, the current study focus on the latter two domains by using test scores of each content. The scores showing the extent to skill mastery and knowledge acquisition would be used for evaluating the effectiveness of onboarding training. Tests were immediately carried out on the day after each section.

[[Table 1 near here]]

Measures

Control variables include as following: *gender*, *business unity* (total five BU in the company), and *metropolitan employment*. All those controls may affect the socialization process and have been used in previous OS research (Kammeyer-Mueller and Wenberg 2003).

Human capital was rated by *preentry knowledge* and *job level* (from level 1-level 5) of the newcomer. *Preentry knowledge* collected from recruitment test records of newcomers' basic knowledge of pharmaceutical sales (total score: 100 points).

Availability of pre-training has been recorded in the employee training data to track whether the newcomer had been received the one-day pre-training before they participated new employee training (T0). This one-day training conducted by trainers is one-on-one coaching event, including 1) providing necessary information, prior knowledge, and material of the upcoming training to make newcomer better

prepared and 2) coaching newcomers sales call on-site. Unfortunately, not every newcomer has an opportunity to participating, due to limited numbers of trainers. Generally, the newcomer who had participated into coaching session was randomly selected in newcomer pool. In rare cases, the newcomer who had not been selected may due to inconvenient accessibility of their work location. Total 960 out of 1184 have been received pre-training coaching before onboarding training.

Trainee reactions was measured using an 18-items scale developed to measure the trainees' perception of trainer, content, utility, and classroom during the training (T1). Responses self-reported their reaction to training on a five-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). Samples items from each of subscales include the following: "I think this training is important can provide skill to improve my performance in the field."

Trainee engagement was rated by trainers during the training. 4-items scale was developed based on Kim et al. (2020), Brown (2005), and Ainley et al. (2002) to measure proactive participation, effort to apply knowledge, persistence, and discipline of the newcomers (T1). The measure used a five-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). Typical item is "The trainee interacted with trainers and other trainees proactively during the training."

Cognitive learning was measure by product test scores and medical test scores rated by trainers. The test was conducted immediately after the cognitive learning section (T1).

Skill acquisition was measured based on a situational role play test scores for examine the application of skill learned from this training. The situational role play test was conducted immediately after the skill section (T1).

Newcomer turnover was collected on the last day of the newcomers' first employment year (T2; the 365 day after organizational entry). It is coded dichotomously as 1 for leavers and 0 for remained newcomers. The variable is calculated from the hired and terminated dates of the newcomers. Total 1033 of the 1184

new employees in the initial samples involved in the test of hypothesis 3a. Of the 1033 newcomers, 294 chose to leave, and 739 remained in their first employment year.

Job performance was collected from annual sales report of newcomers provided by a district sales manager. 226 out of 1184 participants from North district were included in the data. This paper used newcomer's sales volume in the annual sales report as the indicator of sales performance to examine the extent to which newcomer was socialized (T2).

Data analysis

First, independent sample t-test was used to test the effectiveness of pre-training activity, and OLS regression was used analyze the impact of human capital of newcomer on training performance. Then, mediation analysis through the bootstrap method was introduced to test the mechanism of reaction-learning relationship. Finally, the logistic/OLS regression were used to explore the effect of orientation training program on OS outcome: turnover and job performance in newcomers' first employment year.

Results

The hypothesis 1a stated that newcomers attending pre-training coaching would be better preformed in reaction, engagement and be more socialized on task skill/knowledge than newcomers not attending. The independent sample t-test was conducted determining the effect of pre-training coaching on each of subsequent training outcomes. The results showed that the effect of pre-training coaching was significant on our training outcome variables: overall reactions (Cohen's d=0.44, 95%CI=[.30, .59], $p<0.001$), sales skill acquisitions (Cohen's d=0.21, 95%CI=[.03, .81], $p<0.05$), presentation skill acquisitions (Cohen's d=0.19, 95%CI=[.04, .34], $p<0.05$), medical knowledge learning (Cohen's d=0.15, 95%CI=[.00, .30], $p<0.05$), and product knowledge learning (Cohen's d=0.43, 95%CI=[.28, .58], $p<0.001$). However, there

was no significant difference in newcomer engagement by the experience of pre-training coaching. Therefore, H1a was partly supported by the result.

Then, OLS regression analysis was used to examine the impact of preentry knowledge and job level on training performance, including reaction, engagement, knowledge (post-training), sales skill (post-training), and presentation skill (post-training). The author entered control variable, availability of pre-training activity, preentry knowledge, and job level into the model. As a result, newcomer with higher preentry test score mastered product knowledge ($\beta = .25$, $p < .001$), medical knowledge ($\beta = .15$, $p < .001$), and presentation skill ($\beta = .07$, $p < .05$) better than others. Newcomer with higher level job level had higher engagement in training ($\beta = .06$, $p < .05$), higher knowledge of medical ($\beta = .06$, $p < .05$), higher level of sales skill ($\beta = .14$, $p < .001$), and presentation skill ($\beta = .09$, $p < .01$). The result indicated that newcomer previous experience and knowledge have significant positive effect on adjustment on task and job. Therefore, H1b was partly supported

We also tested how trainee reactions transfer into learning for Hypotheses 2. As shown in Table 3, except content reaction, all reaction variables exhibited significant and positive indirect effects on acquisitions of sales skill and presentation skill that supported hypotheses 2 after controlling for gender, business unity, preentry knowledge, cognitive learning and job level. In particular, trainee engagement was fully mediated the relationship between classroom reactions and skill acquisition. The result indicated that reactions can be converted into learning through trainee engagement. Hence, Hypotheses 2 was supported.

[[Table 2 near here]]

To examine the effect of orientation training on newcomer socialization, binary logistic regression

and multiple regression were performed respectively in which the distal OS outcomes including early turnover and annual sales performance were regressed on variables of orientation training (Table 3). After controlling for gender, metropolitan employment, job level, business unity, and preentry knowledge, the result of logistic regression showed that availability of pre-training coaching, engagement, and medical knowledge significantly predicted newcomer's turnover within first year. This finding suggested that orientation training can be an indicator of good socialization to reflect the extent to newcomer retention. Thus, the hypothesis 3a was generally supported.

In the sample of 226 newcomers, the result of multiple regression showed that none of training variable were significant related to sales performance. Only preentry knowledge significantly predicted sales performance in first year ($\beta = .16$, $p < .05$). However, acquisition of sales skill had a margin significant effect on sales performance ($\beta = .13$, $p < .1$) indicating that the higher learning of sales skills can predict future newcomer sales performance in some extent. Thus, the hypothesis 3b was partially supported at margin statistical significance.

[[Table 3 near here]]

Conclusion

Previous studies indicated that new hired workers have the highest risk of leave in the first three years (Mowday, Porter, & Steers 1982), such that they often struggle with frequent job hopping which can be obstacles to adjustment to their future work. The evidence just suggests that a good OS from the beginning is the primary condition of organizational success (Kammeyer-Mueller & Wanberg, 2003)

In the present study, we first examined the effect of pre-training activities on the difference of

training performance. Then, drawing from the training theory, we examined the mediation role of trainee engagement underlying learning process. Finally, we examine whether the learning outcome produced from orientation training can predict OS outcome such as turnover and job performance within first year.

This study provides empirical implications to convince researchers of the need to examine orientation training in newcomer OS process and guide practitioners to incorporate effective series of training outcome index in orientation training to manage newcomer OS learning.

Limitations

Because the limitation of using company data, only 226 newcomers' annual job performance were provided voluntarily by North district sales managers.

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Table 1. Orientation training agenda (general version)

Sections	Training Type	Time
Opening	Classroom training	day1
Company introduction	Classroom training	day1
Medical	Classroom training	day1
Product	Classroom training	day2
Test for medical and product	Pen-paper test	day3
Presentation skill	Classroom training	day3
Sales skill	Classroom training	day4
Skill practice	Group workshop	day5
Trainee reaction survey	Online Survey	day6
Test for sales skill and presentation skill	Situational test	day6
Closing	Classroom training	day6

Table 2. Mediation effects of trainee engagement

Indirect paths	Direct Effect	Indirect Effect	Bootstrapt 95% CI
Overall reaction → engagement → sales skills	1.64**	1.01	[0.65, 1.45]
Utility reaction → engagement → sales skills	0.71	0.40	[0.17, 0.68]
Content reaction → engagement → sales skills	-0.02	0.03	[-0.24, 0.31]
Trainer reaction → engagement → sales skills	1.05*	0.30	[0.04, 0.57]
Venue reaction → engagement → sales skills	-0.14	0.26	[0.04, 0.50]
Overall reaction → engagement → presentation skill	0.98***	0.26	[0.10, 0.45]
Utility reaction → engagement → presentation skill	0.70**	0.10	[0.03, 0.19]
Content reaction → engagement → presentation skill	-0.17	0.01	[-0.05, 0.09]

Trainer reaction → engagement → presentation skill	0.70**	0.08	[0.01, 0.17]
Venue reaction → engagement → presentation skill	0.32	0.06	[0.01, 0.13]

Note. The coefficients are unstandardized. *p < .05. **p < .01. ***p < .001.

Table 3. Analysis for estimating newcomer OS outcomes

	Dependent variable	
	Early turnover	Sales performance
	B	β
Male	.14	-.09
Job level	-.19**	.04
Business unity (4)	Yes***	Yes
Metropolitan employment	.67	—
Pre-training coaching	-.54*	.01
Preentry knowledge	.09	.16*
Overall reaction	.24	-.10
Engagement	-.47**	-.04
Medical knowledge	-.17*	.11
Product knowledge	-.07	-.01
Sales skill	.04	.13†
Presentation skill	-.16†	.08
N	1033	226
Nagelkerke R2	.17	
R2		.08

Note that early turnover was estimated by logistic regression, and sales performance was estimated by multiple regression. The score of preentry knowledge, medical knowledge, product knowledge, sales skill, and presentation skill were standardized in logistic regression.

† p < .10. *p < .05. **p < .01. ***p < .001.

Organization of Hybrid Governance:
How does Entry Mode Affect Intrafirm Mobility and Knowledge Generation

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Organization of Hybrid Governance:

How does Entry Mode Affect Intrafirm Mobility and Knowledge Transfer

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April 15, 2021

Running title: How does Entry Mode Affect Intrafirm Mobility and Knowledge Transfer

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Organization of Hybrid Governance:

How does Entry Mode Affect Intrafirm Mobility and Knowledge Transfer

ABSTRACT

A key theme for multi-business firms and multinational firms is managing heterogeneous business units or international subsidiaries. Where does the heterogeneity come from? How do firms redeploy resources across differing units to maximize value? In this paper, we identify a particular source of subsidiary variation—entry mode into foreign markets. Firms choose either greenfield investment or M&A when entering a new market. We propose that different entry modes lead to different governance mechanisms by the headquarters towards the subsidiaries, resulting in variation in structure and work contexts of the subsidiaries. This variation then leads to differences in headquarters-subsidiary relationship, and knowledge creation and transfer at the subsidiary level. We test our hypothesis with a field study at a multinational company and find that the firm exerts more dynamic control towards M&A subsidiaries by redeploying more headquarters employees to these subsidiaries than to greenfield subsidiaries, and knowledge created at M&A subsidiaries are less location specific as employees from these subsidiaries tend to be redeployed to more unrelated locations.

Keywords:

Entry mode; hybrid governance; knowledge; intrafirm mobility

INTRODUCTION

A key question for the research of multi-business and multinational firms is, how are business units or international subsidiaries of different governance arrangements managed within the firm boundary? A majority of this literature, however, uses the entire firm as the unit of analysis. Only a few papers point out that integrating mechanisms used by the HQ may differ within the same firm (Gupta & Govindarajan, 1991) . Gupta and Govindarajan (1991) suggest that the nature of corporate control varies across subsidiaries, depending on the subsidiary's usage and provision of knowledge. The relationship between the HQ and subsidiary not only depends on the subsidiary's context, but is also affected by its relative importance and positioning in the overall firm portfolio.

In this paper we propose that to understand the management of diversified firms (whether it's product diversification or geography diversification), we might benefit by going back to the sources of unit variation. We identify a special source of unit heterogeneity—entry mode into a foreign market—and explain what this difference means for corporate structure and knowledge transfer within the organization.

Firms enter a foreign market either by greenfield investment or mergers and acquisitions (M&A). Different entry modes, we argue, will give rise to different governance arrangements, and thus give us a clean bifurcation of governance modes—one hierarchy-like (greenfield subsidiary), the other market-like (M&A subsidiary). We take note that despite a vast body of work examining the factors leading to firms' choice of entry modes (Caves, 1982; Chang & Rosenzweig, 2001; Gomes-Casseres, 1989; Kogut & Singh, 1988; Madhok, 1997; Park, 2008), scant research exists to understand what happens *after* a firm has chosen either mode of entry: that is, how do multinational corporations (MNC) manage subsidiaries of different entry modes? How does entry mode shape HQ-subsidiary relationships?

Why do we expect entry modes to affect the characteristics of subsidiaries and corporate-subsidiary relationship? We propose a mechanism of hybrid governance modes within the firm. Williamson (1985) states that corporate control over a specific subsidiary can be thought of as a governance mechanism instituted by the firm to regulate transactions between corporate headquarters (HQ) and the focal subsidiary. Different entry modes, we argue, lead to different transactions between HQ and the subsidiary

and therefore different governance arrangement. Further, we propose that this difference in governance mechanism will have implications for knowledge creation and transfer.

In this paper, we add to the literature by studying a focal multinational company that has entered different foreign markets with both entry modes. We show that the HQ, with its weaker control over M&A subsidiaries, is keener on *dynamically* controlling and coordinating M&A subsidiaries and knowledge created in M&A subsidiaries are less location-specific. We use geographic mobility of employees to operationalize corporate control and knowledge flow. A nascent stream of research uses individual-level data to study the value created by intra-firm geographic mobility for firms and individuals (Choudhury, 2020). Geographic mobility of employees within the firm is found to facilitate knowledge transfer, socialization, diffusion of organizational norms, and resource allocation. The literature on international assignment and expatriation has long recognized the value of manager transfer in multinational corporations (Argote & Fahrenkopf, 2016; Edstrom & Galbraith, 1977a; Gupta & Govindarajan, 2000). That body of work, however, is predominantly concerned with the *initial* assignment, the assignment and transfer of *top executives*, and the choice between *locals* and *expatriates*. We argue that international staffing is a *dynamic* process that reflects both the changing business contexts of subsidiaries and their relationships with the HQ. We also suggest that since firms can only assign a limited number of expatriates to a given country due to legal constraints on foreign labor and high costs of expatriation, staffing of levels below the top executives is also important. We therefore examine and compare the dynamic staffing at all levels for greenfield and M&A subsidiaries.

The paper contributes to several research streams. First, it contributes to the study of the role of HQ and HQ-subsidiary relationship. Second, it contributes to the understanding of organizational structure and generation of knowledge (Argyres & Silverman, 2004; Birkinshaw, Nobel, & Ridderstråle, 2002; Gupta & Govindarajan, 1991a). This literature focuses on the relationship between a firm's *internal* organization and the generation and application of knowledge. In our study we integrate it with the problem-solving perspective (Nickerson & Zenger, 2004) to highlight that different problems that subsidiaries have to solve give rise to different types of knowledge. Different entry modes lead to

heterogeneous organizational structures of subsidiaries, and this in turn dictate the problems that each subsidiary is faced with and the search paths for solving the problems, and hence lead to differences in knowledge accumulation and capability development.

Third, our study also contributes to the post-merger integration (PMI) stream in the M&A research. Both practitioners and scholars stress the crucial role played by PMI in the success of M&A (Zollo & Meier, 2008). Past research on PMI has focused on two questions: what to integrate and how to integrate (Puranam et al., 2006, 2009)? The first question is about resource reconfiguration, while the latter is about the tradeoff between structural integration and autonomy (Haspeslagh & Jemison, 1991). The unit of analysis in this literature is often at the firm level: the acquiring firm, the acquired firm, or the newly formed entity after merger. Each transaction is viewed and evaluated separately. We contribute to this literature by adding intra-firm heterogeneity—firms are likely to conduct more than one M&A, then firms' integration of every additional asset or entity is performed against the backdrop of other merged units. Adding this perspective will shed more light on resource constraints of the firm and the role of the HQ in resource reconfiguration (Karim & Capron, 2016), and understand why successful PMI is elusive.

THEORY AND HYPOTHESIS

Entering a foreign market via either greenfield investment or M&A is a strategic choice driven by multiple factors; this choice once made, however, not only directs how the firm enters a foreign market, but how the relationship between the CHQ and subsidiary will be governed. Borrowing from Williamson (1985), Gupta and Govindarajan (1991) argue that MNC is a network of transactions, where corporate control over a specific subsidiary is thought of as a governance mechanism instituted by the corporation to regulate transactions between it and the focal subsidiary. Consistent with Calvet (1981), Ghoshal & Bartlett (1990), and Teece (1986), they describe MNC as a network of capital, product, and knowledge transactions among units located in different countries. The exact composition of the transactions is determined by the governance relationship between the headquarters and the subsidiary, and hence by the entry modes.

How do entry modes determine governance modes? Figure 1 illustrates the mechanism we propose for this study. Below we explain the sources of governance differences, and their implication for employee (re)deployment and knowledge creation and transfer.

When expanding abroad, a company has to choose between non-equity entry modes such as exporting and licensing, or equity-based entry modes such as setting up new plants (i.e. greenfield investments), or acquiring whole or part of equity in businesses already operating in the foreign country(i.e. M&A). Given that many of the works in MNC strategy and organization also find their root in the strategy and structure paradigm advanced by Chandler (1962), the lack of attention to the alignment between entry mode as a strategy, and subsequent management of subsidiary and headquarters-subsidiary relationship as the structure, is surprising. Harzing (2002)[i] is a notable exception. Using survey data, Harzing (2002) examines whether greenfields or acquisitions are managed differently and finds that compared to greenfields, acquisitions are allowed to operate more independently with lower levels of control exercised towards them, and acquisitions display a lower level of expatriate presence and lower importance of functions of expatriation.

We find this result not surprising. In fact, it would be very surprising if firms had better control over acquired subunits than over greenfield subunits that they build from scratch on their own. The more interesting question are, given that both types of subsidiaries could coexist within one firm, how does the HQ *manage* them, being aware of the differing nature of the tensions between the HQ and different types of subsidiaries? Given that a major value creation mechanism of multi-business firms is the ability to redeploy resources from one business (unit) to the other, how does the HQ redeploy resources, e.g. employees, knowledge, etc. among different types of subsidiaries?

Insert Figure 1 about here

Subsidiary Heterogeneity and Multiple Embeddedness

Research has long noticed that both multidivisional and multinational firms assign different strategic roles to different subsidiaries and stressed the importance of subsidiary heterogeneity and environmental/local contexts on headquarter-subsidiary relationships (Menz et al., 2015). In the case of multinational firms, Meyer et al (2011) argue that subsidiaries have to balance "internal" embeddedness within the MNC network and with their "external" embeddedness in the host environment. The exact level of pressure from both embeddedness is subsidiary-specific. Research from the institutional perspective posits that subsidiaries, while adapting to local contexts, are also subject to institutional pressures from within the organization to become isomorphic to the parent organization's norms (Kostova & Zaheer, 1999). Subsidiaries have to conform to both internal (from the headquarters) and external (from the host country) sources of isomorphism.

Subsidiaries set up as a result of different entry modes vary in terms of the embeddedness or isomorphism pressure they face. For greenfield investment, the MNC is often the sole owner (though 100% ownership is not a requisite), therefore the subsidiary is more likely a replicate of the headquarter, sharing similar routines, processes, unified incentive system, and internal culture. Employees working at these subsidiaries deal with two interfaces: one with the headquarter, the other with elements of the host country (i.e. government, community, interest groups, local labor, etc.). For subsidiaries from M&A, there are two different cases: first, 100% takeover of a local business; second, purchase of partial equity in a local business, or participating interest in international joint ventures formed by companies from a third country. M&A subsidiaries therefore has to either deal with the merged company or coordinate routinely with JV partners. The existence of past contractual commitment of the acquired firm or JV partners means the subsidiary has to honor arrangement that may not be in line with HQ practice or expectation, causing conflict with the parent organization. M&A subsidiaries, therefore, suffer more pressure of internal isomorphism than greenfield subsidiaries do. Employees work with at least three interfaces: one with the headquarter, the second with the acquired company or JV partners, and the third with elements of the host country.

From the perspective of the HQ, greenfield subsidiaries are more "organic" to the organization than M&A subsidiaries. HQ executives and functional departments are deeply involved in their initial design, planning, and staffing decisions, making subsequent communication and coordination less strenuous. Further, because of the "organic" nature of greenfield subsidiaries, they can make full use of the shared services such as standardized IT, accounting, and HR that many HQ today provides to business units. The CHQ, as a result, is able to adopt a centralized approach to greenfield subsidiaries with limited delegation of authority. M&A subsidiaries, on the contrary, are too idiosyncratic to be imposed on the same standardization. If they are formed from 100% corporate takeover—a typical form of "inorganic" growth—then post-merger integration would require extra care and a context-specific approach.

Employee Redeployment for Socialization, Control, and Coordination

Multi-business or multinational firms can move employees from headquarters to subsidiary, from subsidiary to headquarters, or between subsidiaries. How does employees' geographic mobility create value for the firm? Research on expatriation finds that geographically mobile employees can act as a conduit for headquarter control, transferring knowledge, social norms, cultures, and organizational processes (Edstrom & Galbraith, 1977). The necessity for intra-firm personnel mobility is that much of the knowledge about organizational culture and processes is tacit and difficult to impart without direct contact with employees who have the knowledge (Argote & Ingram, 2000; Ghoshal et al., 1994). According to the knowledge-based view of the firm, knowledge resides mostly within individuals, and assigning knowledgeable employees to remote subsidiaries will help transfer their sticky and tacit knowledge (Argote & Miron-Spektor, 2011; Chang et al., 2012). As MNCs are becoming ever more complex, deploying employees with particular knowledge facilitates knowledge transfer and alleviates coordination failures.

Employees deployed from the HQ also gives the headquarter managers an avenue for remote subsidiary control and helps ease the principal-agent tension between the HQ and subsidiaries. Geographical distance and communication difficulties pose challenge to headquarters' control over subsidiaries, mostly in the form of information asymmetry; sending people who have worked at the head

office and who are familiar with internal processes and the "firm's way" of doing things will help reduce information asymmetry and give HQ management better control over subsidiaries. Internal employee mobility also facilitates the diffusion of organizational norms. Karim & Williams (2012) argue that employees moving within the firm facilitate effective transfer and recombination of organizational norms.

Based on our above analysis that M&A subsidiaries are less isomorphic with the parent organization, leading to weaker control by the HQ over the subsidiary, the firm is more likely to send employees from the head office to M&A subsidiaries as opposed to greenfield subsidiaries on a *dynamic* basis. The emphasis on dynamic is because, our hypotheses do not claim that M&A subsidiaries *have more* expats than greenfield subsidiaries on a static or stock basis. Instead, the question here is *after* the initial assignment and staffing are made, how will the flow of knowledge and control to M&A subsidiaries and greenfield subsidiaries respectively be like? To take a point of departure from Harzing (2002) who finds MNC has less control over M&A subsidiaries, we propose that firms are fully aware of this tension and therefore will put in place compensating mechanism to make up for this weaker control. Therefore, we propose the following baseline hypothesis to test if we are correct in our foundational reasoning about the differences between the two entry modes as two governance mechanisms:

Hypothesis 1 (H1). Employees from the headquarters are more likely to be redeployed to M&A subsidiaries than to greenfield subsidiaries.

Theory of MNC, Knowledge Transfer, and Relatedness

In their contribution to the theory of MNC, Kogut and Zander (1993) proposes that firms are social communities that serve as efficient mechanisms for the creation and transformation of knowledge into economically rewarded products and services; MNC exists because of its superior efficiency as an organizational vehicle by which to transfer knowledge across borders. The premise for this argument is that certain knowledge, especially know-how, is tacit—less codifiable and teachable. The tacitness of knowledge is considered to be an important source of firm competitive advantage because the more tacit the knowledge is, the more difficult it is for others outside of the firm to replicate and imitate (Grant,

1996). Kogut & Zander (1992, 1993) thus argues that it is easier to transfer knowledge within firms than between firms and this explains the growth of MNC. But intrafirm transfer of knowledge can also be "laborious, time consuming, and difficult" and suffers "stickiness" (Szulanski, 2000). Transfer of technological know-how across borders is particularly costly due to distance and communication problems (Teece, 1977). Effective knowledge transfer is not only about transmitting and receiving, but also about ensuring correct interpretation and implementation on the receiving end, further impeding the process of intra-firm knowledge transfer (Szulanski, 2003).

Increasing evidence shows that internal knowledge transfer across organizational units within firms provides competitive benefits (Gupta and Govindarajan, 2000). The resource-based view of the firm also perceives the firm as a unique bundle of idiosyncratic resources and capabilities where the primary task of management is to maximize value through the optimal deployment of existing resources and capabilities (Barney, 1986; Penrose, 1959). Internal knowledge transfer and knowledge recombination both contribute to building this unique bundle of idiosyncratic resources and capabilities. One important means that firms adopts to facilitate knowledge transfer across business units and locations is to physically move employees who possess certain knowledge or expertise to where the knowledge or expertise is needed. According to the knowledge-based view of the firm, knowledge resides mostly within individuals, so moving people with required knowledge and expertise will shift their sticky and tacit knowledge to new geographies. Their presence in the new location will not only bring the knowledge they have accumulated in the old location, but help people in the new location better interpret the knowledge to avoid loss or distortion in non-face to face communication (Szulanski, 2003).

Given the high cost of employee relocation, we argue that in making employee redeployment decisions to facilitate knowledge transfer, the firm will choose the direction of redeployment, and thus the direction of knowledge flow, that minimizes adjustment cost and maximizes the efficiency of knowledge transfer. How can the efficiency of knowledge transfer be improved? Szulanski (1996), by analyzing the internal stickiness of best-practice transfer within firms, shows that major barriers to internal knowledge transfer are knowledge-related factors such as the recipient's lack of absorptive capacity, causal

ambiguity, and an arduous relationship between the source and the recipient. So we propose that a key sub-mechanism for transfer efficiency is similarities between the new location and the old location so that the redeployed employee can make ready use of her existing expertise; this also helps reduce her adjustment cost in terms of learning new knowledge. Further, this similarity, or "relatedness" according to the resource redeployment literature, will also alleviate the pressure on the receiving end in absorbing the transferred knowledge (Cohen & Levinthal, 1990). Past work has also identified that the ties resulting from prior collaboration and future collaborations between local and geographically mobile workers as an important supporting condition necessary for firm value creation from intra-firm geographic mobility of knowledge workers (Choudhury & Kim, 2019; Singh, 2005). We posit that if the old location and new location have high similarities, then the mobile employees are more likely to have past collaboration with the people in the new location because they may have been involved in the same company-wide technology communities, forums, or associations. These social ties will help reduce knowledge transfer barriers.

Then how does entry mode affect knowledge creation and transfer? As argued above, different entry modes and governance modes lead to different organizing of M&A and greenfield subsidiaries. In this study, we establish that greenfield subsidiaries are more hierarchy-like, and hierarchies are shown to be "antithetical to innovation" because they are "bureaucratic" and characterized by centralized authority, formal procedures, and specialized functions (Burns & Stalker, 1961). We hence argue that compared to M&A subsidiaries, knowledge generated in greenfield subsidiaries are less heterogeneous and less innovative.

Further, based on the problem-solving perspective to the knowledge theory of the firm, capabilities are developed by solving problems (Nickerson & Zenger, 2004). Greenfield subsidiaries and M&A subsidiaries face different sets of problems. For greenfield subsidiaries, the problem is building a new plant and organization based on HQ blueprint while taking into account local market dynamics and government requirement. For M&A subsidiaries, the main problem is to achieve an optimal structural integration of acquired firms, managing relationships with joint venture partners, and advance the firm's

interest within the governance framework of the joint venture—in addition to considering local market dynamics and government requirement. Different problems dictate different search paths, which lead to different knowledge creation and accumulation at both the individual level and subsidiary level.

Given the differing nature of problems faced by the two types of subsidiaries, we hypothesize that knowledge generated by greenfield subsidiaries are less heterogeneous and more location-specific, while knowledge created by M&A subsidiaries are more heterogeneous and more relational and interactional in nature. When firms redeploy employees to recombine knowledge as a way to create value from intrafirm mobility, the direction of redeployment will reflect the respective nature of the knowledge created in the employee's location. For example, what type of knowledge is more valuable when redeployed to greenfield subsidiaries? What type of knowledge is more valuable when redeployed to M&A subsidiaries? Another way to ask the questions is: what are the differences in the value of the knowledge generated by greenfield and M&A subsidiaries respectively? How will these differences be reflected in the firm's decisions about redeploying employees? Based on our foregoing analysis, we have the following hypothesis:

Hypothesis 2a (H2a). Employees are more likely to be redeployed to locations where they can use existing expertise or related expertise from their previous jobs than to locations where expertise required are less related or unrelated.

Hypothesis 2b (H2b). Employees from greenfield subsidiaries are more likely to be redeployed to locations of higher relatedness than employees from M&A subsidiaries. In other words, the effect of H2a is stronger for employees from greenfield subsidiaries.

RESEARCH DESIGN

Past research on expatriation and HQ-subsidiary relationship predominantly relies upon survey data. In our study, we manually collected subsidiary and employee data with internal archives of a single MNC that has entered different foreign markets via both entry modes. Studying this question using single firm data is helpful because they enable us to examine inter-subsidiary variation. In the following sections, we

give a brief introduction of the background, then explain empirical testing and results, and finish with some qualitative evidence.

Background

The context in the study is an oil and gas company headquartered in Beijing, China. The firm was registered in 2001, but formal business activities did not begin until 2004. The firm is dedicated to international growth via oil blocks bidding, mergers, and acquisitions in the exploration and production sector ("upstream") of the oil and gas industry. From 2004 to 2018, the firm grew into a medium-size company with presence in more than twenty countries. Production of oil and gas grew from zero to about 100 million barrels per day. The number of employees increased from around 130 in 2004 to about 1,100 in 2014, and over two-thirds of these employees were expatriates staffed in foreign countries. Figure 2 depicts the change in headcount at both headquarter office and overseas operations.

Insert Figure 2 about here

Data and Descriptive Analysis

The data cover all employees (per the definition in the preceding section) that worked at the firm from 2004 to 2018, making a total of 12,456 employee*year observations with 1,342 unique employees. Variables include birth year, gender, education, area of expertise, work location of each year, and hierarchical job level of each year. Table 1 shows individual level summary statistics. The firm entered 33 country-projects, 17 of them were greenfield investments, and 16 were M&A[ii]. Of the 1,342 employees, 302 (22.5%) of them never worked abroad, and 1,040 (77.5%) were posted to a foreign subsidiary for at least one year. Of the 1,040 people with overseas experience, 610 had M&A subsidiary experience while 430 did not. The total number of employee*M&A subsidiary experience*year observations is 3,183; total number of employee*greenfield subsidiary experience*year observations is 3,727.

Insert Table 1 about here

Employee Redeployment from Headquarters to Subsidiaries

Of the 12,456 employee*year observations, there were 2,340 cross-country mobility, including employees moving from headquarters to subsidiaries, moving from subsidiaries to headquarters, and moving between subsidiaries. Of these movements, 895 were directed towards greenfield investments, 750 towards M&A subsidiaries, and the rest towards the headquarter. Each mobility represents one expatriation (going to a subsidiary from the headquarters or from another subsidiary) or repatriation (going back to headquarters). Expatriation to subsidiaries can be from the headquarters, or from other subsidiaries. Of the assignment to subsidiaries, 485 were from the headquarter, of which 286 were directed to M&A subsidiaries, and 199 directed to greenfield subsidiaries. 442 mobility were entirely between subsidiaries, and 707 moves were going back to the headquarters. Some employees were recruited by the head office but did not spend a meaningful amount of time (less than six months) in the headquarters but were assigned directly to foreign subsidiaries. These mobility were not counted as originating from headquarters. There were 706 such assignment, of which 505 were sent to greenfield investment, while 201 were sent to M&A subsidiaries.

When the firm makes expatriation arrangement, it can either redeploy existing employees from other subsidiaries or redeploy existing employees from the headquarters. The two choices come at different costs. First, people need incentives to be redeployed. In the Appendix 1A, we show that the job level (as a proxy for compensation) is positively related to geographical distance from the headquarters, and redeployment is often associated with promotion—the more locations an employee has worked, the higher hierarchical level he would reach. Second, transferring employees from headquarters to subsidiaries is more costly than from subsidiary to subsidiary. From our conversation with company executives, we understood that for employees of the same job level, the compensation for work in an overseas subsidiary was on average 2.8 times that of work in the headquarters. Transferring employees from the headquarters thus would command much higher pay raise than transferring from another subsidiary. From the perspective of subsidiaries, every year they receive three sources of new employees:

assigned from the headquarters, transferred from other subsidiaries, or new recruits that have little experience either with the headquarters or other subsidiaries. Table 2 shows the respective percentage of each source for M&A subsidiaries and greenfield subsidiaries on a yearly basis. It also shows the percentage of new assignment out of the total headcount of the subsidiary in a year. From the descriptive statistics, we see that M&A subsidiaries received higher percentages of HQ expatriates than greenfield subsidiaries did, and the effect was stronger for years after the initial assignment.

Insert Table 2 about here

Employee Redeployment from Subsidiary to Subsidiary

Next we check mobility between subsidiaries. As explained above, there were 442 *direct mobility* between subsidiaries. Besides these, some employees moving from the headquarters to subsidiaries also had worked in other subsidiaries before. We include these mobilities in our analysis of inter-subsidiary mobility too, which is 566 in total. Our rationale for this is the experience and knowledge they gained from working in other subsidiaries would not disappear because they went on to work for a period of time at the head office. To understand the direction of the mobility, we divide the flow into four types: greenfield to greenfield (G-G), greenfield to M&A (G-M), M&A to greenfield (M-G), and M&A to M&A (M-M). (*Note that these moves are job assignment, not routine or sporadic business travels*). Of these mobilities, 201 came from M&A projects, of which 140 of them went to other M&A projects (69.8%), the rest to greenfield (30.2%); 365 came from greenfield subsidiaries, of which 215 went to M&A subsidiaries (58.9%), the rest to other greenfield projects (41.1%).

What are the types of knowledge being generated at these two types of subsidiaries and what are the types of knowledge being transferred with people movement? To answer these questions, we first try some qualitative exploration. Figure 3.1 and Figure 3.2 show the skill categories of the employees that were moving between subsidiaries.

Insert Figure 3.1 and 3.2 about here

From Figure 3.1 and 3.2, we see that M&A subsidiaries received a majority of the inflow, especially from greenfield subsidiaries. Further, they were big consumers and generators of *commercial knowledge,* as evidenced by the high proportion of people with finance and legal skills that both flowed in and out of these places; by comparison, greenfield subsidiaries were big consumers and generators of *technical knowledge,* as evidenced by the high proportion of people with engineering and exploration skills that both flowed in and out of these locations. If we only look at the mobility within the same category (G-G and M-M), we see that within greenfield subsidiaries, the dominant knowledge flow is technical knowledge (the proportion of technical skills is twice that of commercial skills), while within M&A subsidiaries, the dominant knowledge flow is commercial knowledge.

To understand the location-specificity of the knowledge and relatedness between different locations, we developed a measure of specificity based on the unique feature of oil and gas firms: geology. Geology is obviously location specific and can have an impact on other aspects of the oil business. We use the Jaccard similarity coefficient approach to develop a measure of geological distance between two locations. The measure ranges from 0 to 1, with mean 0.47, standard deviation 0.26. The higher the measure, the less similar the two locations are in terms of geological features. Detailed explanation can be found in Appendix A2. Figure 4.1 shows geographical distance (log) and geological distance for different skills between their two assignments. It is not surprising that skills such as engineering and exploration were redeployed to more related locations, while skills such as law and finance (commercial) or administration and public relations were less geologically constrained. So we see on the geological distance graph, the measure for commercial and admin people have higher variance than technical people; while on the geographical distance graph, there is no visible difference for the four skill sets.

Insert Figure 4 about here

With this measure for location relatedness, we next check the knowledge flow between different types of subsidiaries. For the firm to maximize value from employee redeployment, relatedness between the locations of the assignments will be important as it reduces the adjustment cost of employees. If we were correct in predicting that knowledge generated in greenfield subsidiaries are more location specific than M&A subsidiaries, then if the firm wants to maximize the value from employee redeployment, it should move people from greenfield subsidiaries to locations that are more similar to the old locations. Figure 4.2 shows the geographical and geological distance between assignments for different directions of mobility. We see that for mobility within greenfield subsidiaries, geological distance between two assignments is the lowest, while mobility within M&A subsidiaries seems to have the highest unrelatedness.

But this is likely caused by varying percentages of people with different areas of expertise: M&A subsidiaries may be staffed with higher number of people specializing in commercial and administrative jobs while greenfield subsidiaries have more engineers and geologists. So we check how far people with different areas of expertise went in terms of both geographical distance and geological distance when they were redeployed out of greenfield subsidiaries versus M&A subsidiaries. Interestingly, as the right graph in Figure 4.3 shows, even commercial and administrative people tended to move to locations that had higher geological similarities when redeployed from greenfield subsidiaries.

EMPIRICAL TEST AND RESULT

Next we use econometric models to test our hypothesis formally.

Employee Redeployment from HQ

The first is our baseline hypothesis about the direction of employee redeployment from HQ. In the descriptive analysis we show the assignment from HQ as a percentage in total new assignment each year. Here for econometric analysis we use logit model because using percentage as the dependent variable may be problematic since it's bounded between 0 and 1 (inclusive). Using logit model is consistent with the perspective of subsidiary managers: every year the manager receives from the HR department at the

HQ the employee assignment notice, which briefly informs her who will be sent to her subsidiary this year and where these persons are from.

Econometric specification:

$$logit\left(from_HQ_{ji,t}\right) = \log\left(\frac{from_HQ_{ji,t}}{1-from_HQ_{ji,t}}\right) = \alpha + \beta_1 MA_{j,t} + \beta_2 X_{1\,j} + \beta_3 X_{2\,j,t} + \epsilon_{j,t} \qquad \text{(H1)}$$

Where $from_HQ_{ji,t}$ is a binary variable equal to one if the person assigned to subsidiary *j* is from HQ in year *t*, and zero otherwise. *i* means there may be more than one assignment for each subsidiary each year. $MA_{j,t}$ is an indicator variable, whose value is one if the subsidiary was an M&A subsidiary at time *t*, zero for greenfield subsidiary. The time index for it is because a few subsidiaries started as a greenfield subsidiary, but the firm later acquired other companies or formed joint ventures and so they became M&A subsidiaries. The employees working in the prior greenfield subsidiaries generally transitioned to the later organization. Since capital investment and production are aggregated at this larger subsidiary level, we check and confirm the subsidiary's status as an M&A subsidiary or greenfield at the time when staffing was made. $X_{1\,j}$ refers to time-invariant attributes of the subsidiary *j*, such as the entry year, the official language of the country, the geographical distance between the subsidiary city and the headquarters. $X_{2\,j,t}$ refers to time-variant attributes of the subsidiary, such as capital investment and output.

Table 3.1 presents summary statistics for key variables, and Table 3.2 shows their correlation. Table 4 presents results from the logit regression. Note that the sample only contains observations *after* the entry year. Because roughly half of the countries had M&A subsidiaries, and half did not, we are not using country fixed effect. Instead, we try to incorporate as many characteristics of each subsidiary as possible based on insights gained from interviewing company executives and HR managers.

When the firm makes assignment decision, the most important consideration is the business needs of the subsidiary, reflected in each year's capital investment and production numbers. Entry year can partially control the maturity of the subsidiary. For all models we include year fixed effect to control for overall environment change of the year such as oil price. In model (1), neither of the effect of log

production or log Capex is significant, and given that not all subsidiaries had production in the study period, in following models we choose to use percentage of production in company total and percentage of Capex in company total instead. We see that subsidiaries' percentage of production in company total is positively related to the likelihood of employee assignment from HQ, and this effect is significant from model (2) to (5). This is consistent with what we understand from interviewing company executives: the top management devotes most attention to "big projects" because production volume was the most important KPI of the firm. From model (3) we include the *Official Languages* of the countries that the subsidiary was in as a control variable to account for the role of language barrier and communication cost in employee redeployment decisions. Per our interview with company executives and HR managers, the firm was highly sensitive to the language needs of different locations and the official language would often come into their talent assignment decisions. We also include the stage that the subsidiary was in to control for the maturity of the project. Since this is an oil and gas company, projects at different stages mean different levels of risk and operational and management needs. In short, exploration projects are most uncertain and require the most technical prowess. Producing projects are most certain with steady cash flow so the operational needs are mostly with day-to-day management, trading, business development, and relationship maintenance. The demarcation is not clear-cut though, as many subsidiaries had multiple projects that spanned from exploration to producing. From model (4) we include the *Institution Category* of the subsidiaries to capture the adjustment cost of each subsidiary location to individuals. Past work has studied institutional distance and cultural distance between different countries. However, instead of using a generic index, we use the firm's own categorization of location—the main purpose of this location categorization is to determine the "hardship allowance" paid to employees as a supplement to their salaries. Here Category 1 refers to the most advanced economies, such as the US and Canada, where Category 4 refer to ones with highest safety risk, and Category 5 refers to tough jobs on a remote, isolated oilfield or floating production, storage, and offloading unit (FPSO) on the sea. A list of locations and their corresponding categories and languages can be found in Appendix A4. Model (4) shows that Category 5 is least likely to receive employees from HQ. From model (5) we include the

headcount of the subsidiary at time t-1 as a percentage of year t's capex to control for the level of human resource strain, but the effect is not significant. In model (6) we include the growth rate of the subsidiary's percentage of capex in company total. In model (7) we use an interaction term of the binary variable M&A subsidiary and geographical distance from the HQ and find that for M&A subsidiaries, distance has a slightly positive effect on its likelihood of receiving employees redeployed from the HQ. This is consistent with past literature that emphasizes firm's control of subsidiaries is negatively associated with distance—therefore the firm has to deploy more HQ people to help buttress control and coordination. In model (8) and (9) we partition the sample into subsidiary-year observations when Capex growth rate was positive and negative respectively and find that for subsidiary-year that the growth was positive, the firm is more likely to assign people from the HQ. In observations when subsidiary-year growth rate of capex percentage was negative, this effect disappears.

Insert Table 3 and 4 about here

Employee Redeployment between Subsidiaries

Since the measure we develop for measuring the similarity of different locations is geological distance, which is the opposite of relatedness, here we use this distance as dependent variable. But because the geological distance is a measure between 0 and 1 (inclusive), OLS will be problematic (the dependent variable is bounded). We use the fractional logit model proposed by Papke & Wooldridge (1996). Estimation model:

$$E(Geological\ Distance_{i,k}|X_i) = G(\beta_0 + \beta_1 X_i) \quad \text{(H2)}$$

$$(0 \leq Geological\ Distance_{i,k} \leq 1)$$

Where X_i is a vector of explanatory variables, specified as follows:

$X_i = (fromG_{i,k}, I_i)$

The DV is the geological distance between individual *i*'s k^{th} assignment from current location to the new location. $fromG_{i,k}$ is a binary variable, one if the person was moving from a greenfield subsidiary, zero if moving from an M&A subsidiary. I_i is a vector of individual level controls. We consider gender, years with the firm, age and job level at the time of redeployment as important explanatory variables. We also examine employees' area of expertise: engineering, exploration, commercial, and administration. Table 5.1 and 5.2 are summary statistics and for the variables included in the empirical testing. Results are shown in Table 6.

Insert Table 5.1, 5.2, and 6 about here

From model (1) and (2) we see that commercial people are more likely to move to unrelated locations. In other words, technical people such as engineers and geologist tend to move to more similar geographies. We argue that this is because technical knowledge is more tacit comparing to commercial or administrative knowledge. Technical knowledge, at least for this setting, is more location specific than commercial knowledge. Then we examine our major hypothesis about knowledge flow from greenfield subsidiaries and find that they are negatively related to geological distance (model 2), meaning people from these subsidiaries are less likely to travel to places with drastically different geological features. The interesting thing happens when we include interactive terms: in Model (3) and (4), people who move from M&A projects are more likely to go to more unrelated locations, while for people moving from greenfield projects, this effect disappears, even for commercial and administrative people. This supports Hypothesis 2 that firms redeploy employees to places where they can better use existing expertise (so technical people are deployed to more related locations), and knowledge from greenfield subsidiaries is more location specific.

Figure 5 show the predicted value with 95% confidence interval from model (4). Overall, individuals moving out of greenfield subsidiaries tend to move to more related locations, even for people with commercial and administrative skills, indicating that knowledge created and accumulated in greenfield

subsidiaries are more location specific and have narrower application, whereas knowledge accumulated in M&A subsidiaries are less confined to a given location.

Insert Figure 5 about here

DISCUSSION AND CONCLUSION

In this paper we provide an insider view to the management of multinational firms *after* an entry mode was chosen. We show that the entry mode, though determined by multiple economic, institutional, and cultural factors, can have a profound implication for internal structure, CHQ-subsidiary relationship, and knowledge creation. We use intrafirm employee mobility data to visualize the control mechanism and knowledge creation characteristics. We demonstrate how the different governance mechanisms eventually lead to different learning opportunities and types of knowledge created.

Though selective interventions may be impossible, internal hybrids like these are not uncommon, at least on a temporal basis (Foss, 2003; Williamson, 1985). As organizations become ever more complex with increasingly exotic organizational forms to address opportunities and challenges presented by emerging technology and societal transformation, we are going to see more intra-firm variation in terms of ownership, control, structure, and work contexts for employees. These differentiations require a more fine-tuned management style from the headquarters managers and dynamic adjustment capability (Adner & Helfat, 2003; Argyres, Mahoney, & Nickerson, 2019).

Our results seem to be contradicting the findings in Harzing (2002), who suggests that compared to greenfields, acquisitions are allowed to operate more independently with lower levels of control exercised towards them, and acquisitions display a lower level of expatriate presence and lower importance of functions of expatriation. But a deeper look reveals that our findings are quite consistent: *because* the firm has lower control over M&A subsidiaries, it has to dynamically redeploy employees, particularly those from the head office, to those subsidiaries to buttress control and facilitate coordination. Our paper goes

further by integrating the resource redeployment literature to show how the firm creates value by moving people between subsidiaries of different types and characteristics.

Our paper does NOT assess the *effect* of the control mechanism that the firm adopts for its subsidiaries. Nor does it attempt to be prescriptive and advising scholars or managers what the best practice is. Rather, we contribute by filling the literature gap between international strategy—entry modes—and structure, to shed light on CHQ-subsidiary relationship, resource redeployment, and post-merger integration.

Our paper has limited external validity. We study a single organization in China and the sample is rather small. A firm's control over its international subsidiaries can be a function of the firm's level of technical sophistication and international management experience. It is not very long since the Chinese companies began large scale outbound FDI. It is possible that the control and coordination role of employee redeployment shown in this paper is a particular feature of a firm constrained by its management capability and style. Culture has been shown to be an important determinant of "parenting style" of the CHQ of multi-business firms (Menz et al., 2015). Future research could use a large data sample to test if the same argument still holds in firms of other nationalities and industries.

On this note, however, this research may add to the literature of emerging market multinational (EMNE) (Ramamurti & Singh, 2009). Scholars debate whether there's anything theoretically new with EMNEs or they are no different from their DMNE (MNE from developed economies) counterparts (Hernandez & Guillén, 2018). From this field study of an emerging multinational firm from China, we show that it is not fundamentally different from other profit-maximizing firms in developed economies. It adopts similar control and socialization mechanism (transfer of employees) to its international subsidiaries, and provides incentives to motivate people to accept remote jobs.

Future work can also test the hypotheses in a multi-business firm with product diversification. It is common today for multi-business firms to have varying degrees of control in their business units, e.g. a joint venture with even a competitor to explore risky new business, leading to different governance mechanisms of the CHQ towards its units as well. How does this intrafirm variation affect CHQ-business

unit relationship, knowledge creation, and transfer? How does the firm maintain organizational equity while providing proper incentives to keep employees motivated? A further line of inquiry is, how do all these affect the firm and business unit/subsidiary's performance? These are all interesting questions.

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TABLES AND FIGURES

Figure 1 Overall Mechanism

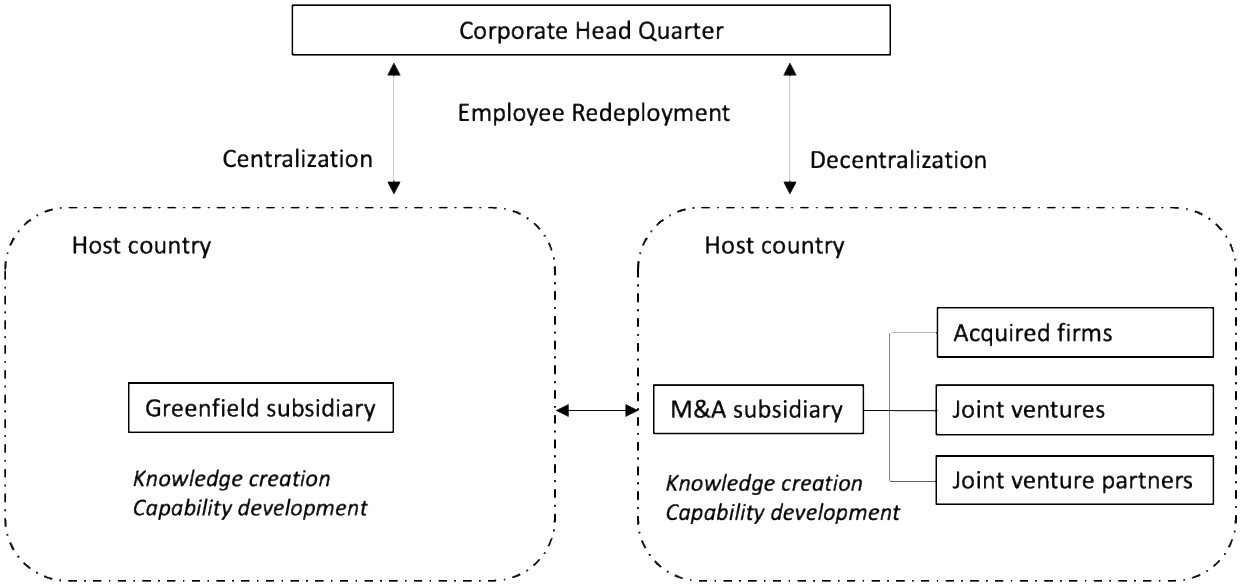


Figure 2 Year-by-year headcount

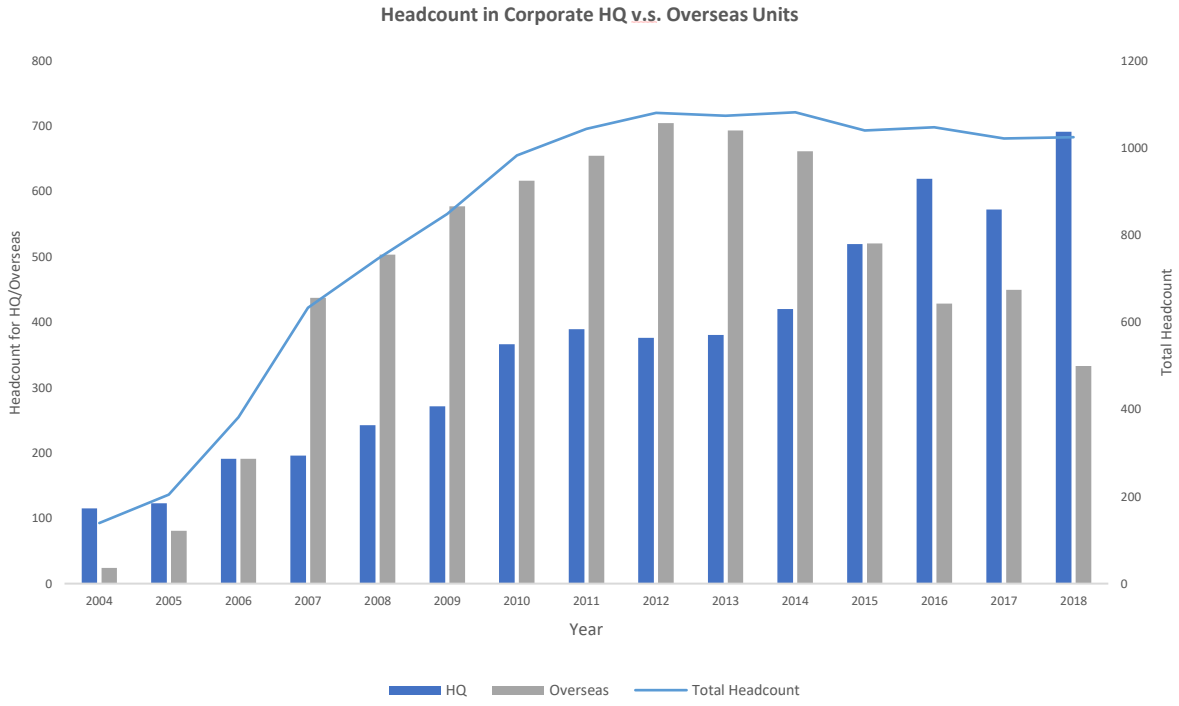


Table 1 Summary statistics of employees

	N	Mean	Std. Dev.	Min	Max	Median
All employees						
Birth year	1342	1974.553	8.762	1944	1993	1974
Male	1342	0.766	0.424	0	1	1
Tenure	1342	9.22	3.909	1	15	10
Years spent in one location	1342	5.08	3.549	1	15	4
# of locations worked	1342	2.149	1.054	1	6	2
Beginning job level	1342	3.994	2.352	1	16	4
Maximum job level	1342	6.066	2.527	2	16	6
Overseas experience	1342	0.775	0.418	0	1	1
M&A subsidiary experience	1042	0.587	0.493	0	1	1
Year of joining the firm	1342	2008.489	3.363	2004	2018	2008
Employees redeployed from HQ to M&A subsidiaries						
Birth year	287	1974.88	8.014	1954	1990	1975
Male	287	0.83	0.377	0	1	1
Tenure	287	10.85	2.897	2	15	11
Years spent in one location	287	3.40	2.074	1	11	3
# of locations worked	287	2.86	0.939	2	6	3
Beginning job level	287	3.81	2.244	1	12	3
Maximum job level	287	6.85	2.429	2	15	6
Year of joining the firm	287	2007.63	2.608	2004	2016	2007

Note: "M&A subsidiary experience" refers to a subset of the firm employees (N=1,040) that worked abroad for at least one year. A job level of 8 is equivalent to "deputy director", a milestone for career advancement. Levels smaller than 8 are all considered junior.

Table 2 Sources of new employees to subsidiaries

	N	Mean	Std. Dev.	Min	Max	p25	P50	p75
Employee assigned to M&A subsidiaries (incl. entry year)								
% from HQ	159	38.9%	34.3%	0.0%	100.0%	0.0%	33.3%	66.7%
% from outside	159	25.2%	34.0%	0.0%	100.0%	0.0%	0.0%	41.7%
% from other subsidiaries	159	35.9%	35.3%	0.0%	100.0%	0.0%	28.6%	61.9%
Employee assigned to greenfield subsidiaries (incl. entry year)								
% from HQ	135	29.8%	33.0%	0.0%	100.0%	0.0%	20.0%	50.0%
% from outside	135	47.1%	38.0%	0.0%	100.0%	0.0%	50.0%	85.7%
% from other subsidiaries	135	23.2%	31.9%	0.0%	100.0%	0.0%	10.0%	33.3%
Employee assigned to M&A subsidiaries (incl. entry year)								
% from HQ in total annual head count	184	10.7%	13.7%	0.0%	75.0%	0.0%	6.5%	16.7%
% from outside in total annual head count	184	9.3%	19.4%	0.0%	100.0%	0.0%	0.0%	10.1%
% from other subsidiaries in total annual head count	184	10.5%	18.0%	0.0%	100.0%	0.0%	4.4%	12.5%
Employee assigned to greenfield subsidiaries (incl. entry year)								
% from HQ in total annual head count	178	8.2%	17.8%	0.0%	100.0%	0.0%	0.0%	7.1%
% from outside in total annual head count	178	18.3%	29.7%	0.0%	100.0%	0.0%	3.3%	22.7%
% from other subsidiaries in total annual head count	178	5.6%	13.3%	0.0%	100.0%	0.0%	0.0%	6.2%
Employee assigned to M&A subsidiaries (excl. entry year)								
% from HQ	145	40.4%	34.8%	0.0%	100.0%	0.0%	33.3%	66.7%
% from outside	145	23.6%	32.7%	0.0%	100.0%	0.0%	0.0%	37.5%
% from other subsidiaries	145	36.1%	35.4%	0.0%	100.0%	0.0%	28.6%	60.0%
Employee assigned to greenfield subsidiaries (excl. entry year)								
% from HQ	113	29.9%	31.9%	0.0%	100.0%	0.0%	22.2%	50.0%
% from outside	113	45.1%	36.5%	0.0%	100.0%	0.0%	50.0%	68.0%
% from other subsidiaries	113	24.9%	32.1%	0.0%	100.0%	0.0%	12.5%	33.3%
Employee assigned to M&A subsidiaries (excl. entry year)								
% from HQ in total annual head count	170	9.7%	12.1%	0.0%	66.7%	0.0%	6.2%	15.8%
% from outside in total annual head count	170	6.6%	13.0%	0.0%	66.7%	0.0%	0.0%	8.3%
% from other subsidiaries in total annual head count	170	8.6%	14.5%	0.0%	100.0%	0.0%	4.0%	11.1%
Employee assigned to greenfield subsidiaries (excl. entry year)								
% from HQ in total annual head count	156	5.3%	9.3%	0.0%	50.0%	0.0%	0.0%	6.7%
% from outside in total annual head count	156	12.8%	22.2%	0.0%	100.0%	0.0%	1.6%	14.3%
% from other subsidiaries in total annual head count	156	4.4%	8.3%	0.0%	50.0%	0.0%	0.0%	6.1%

Figure 3.1 Inter-subsidiary knowledge flow

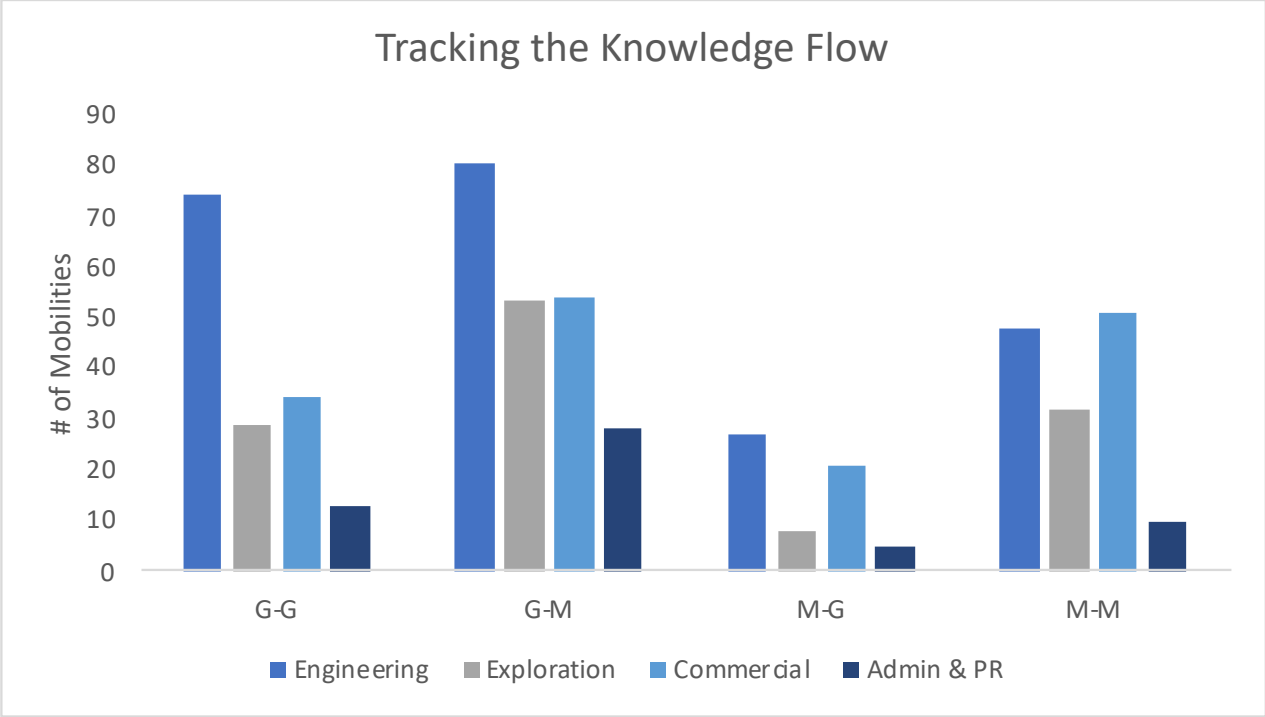


Figure 3.2 Inter-subsidiary knowledge flow (breakdown)

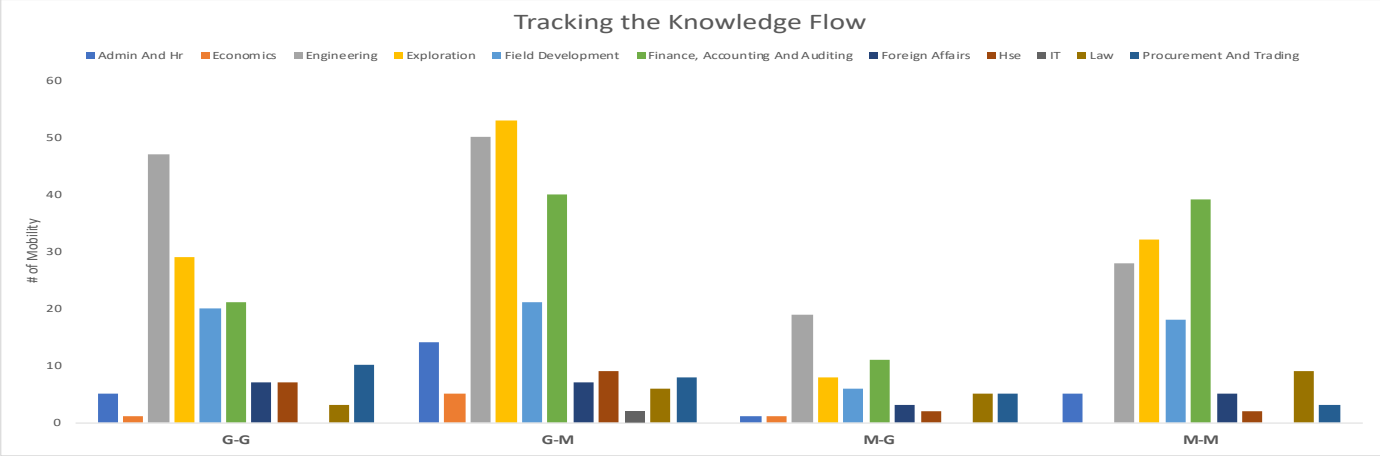


Figure 4.1 Geographical (left) v.s. geological (right) distance between assignments for different skill types

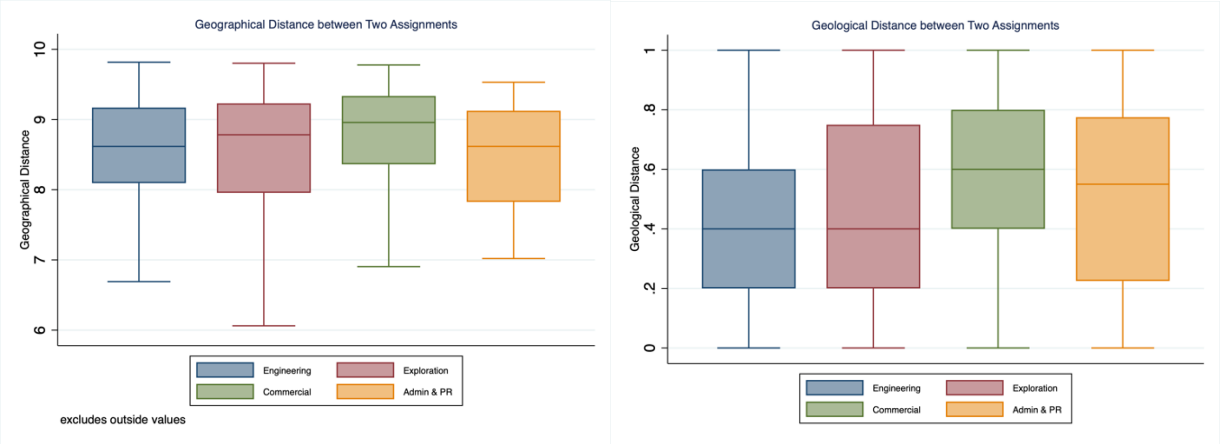


Figure 4.2 Geographical (left) and geological distance (right) comparison for knowledge flows between different types of subsidiaries

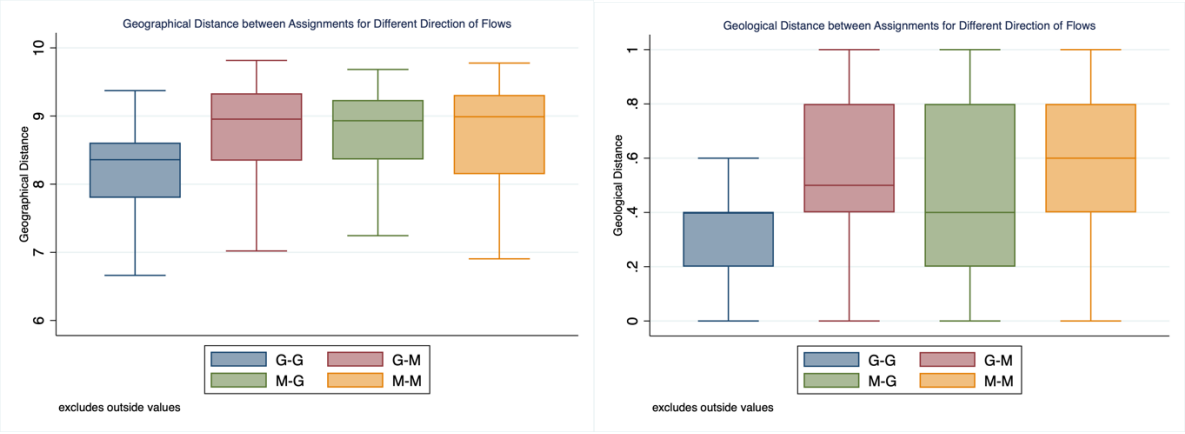


Figure 4.3 Geographical (left) v.s. geological (right) distance between assignments

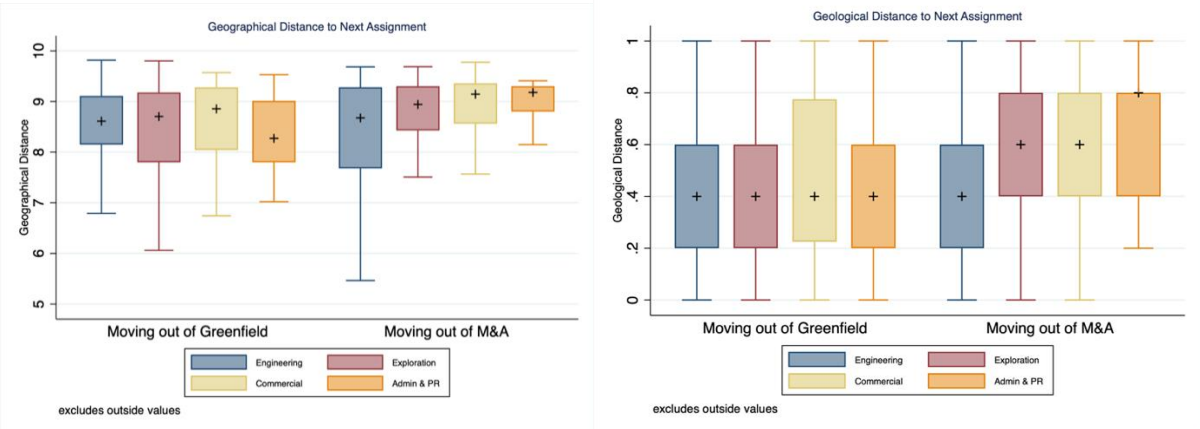


Table 3.1 Summary statistics for H1

	N	Mean	Std. Dev.	Min	Max	p25	P50	p75
Assigned from HQ	2155	0.206	0.405	0	1	0	0	0
M&A subsidiary (1 or 0)	1483	0.449	0.498	0	1	0	0	1
Entry year	2155	2006.438	3.406	2004	2014	2004	2005	2007
Log distance from HQ	2155	6.154	4.173	0	9.866	0	8.631	9.117
Time difference from HQ	1483	6.521	4.051	-3	15	4.5	6	7
Log Capex	1309	9.101	1.664	0.693	12.402	8.428	9.167	10.077
Log production	997	4.421	1.414	-0.444	6.891	3.475	4.591	5.466
% Capex	1323	0.059	0.056	0	0.372	0.019	0.046	0.078
% Production	1324	0.054	0.075	0	0.575	0	0.03	0.073
% Capex growth rate	1294	2.572	26.181	-1	601.745	-0.36	-0.07	0.521
Head count (t-1)/Capex t	1248	0.082	0.69	0	7	0.002	0.003	0.007

Table 3.2 Correlation tables for H1

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
(1) Assigned from HQ	1										
(2) M&A subsidiary	0.159	1									
(3) Entry year	0.065	0.314	1								
(4) Log distance from HQ	0.06	0.034	0.456	1							
(5) Time difference from HQ	0.086	0.176	0.353	0.723	1						
(6) Log Capex	0.04	0.066	0.255	-0.026	0.021	1					
(7) Log production	0.196	0.354	0.254	-0.025	0.15	0.375	1				
(8) % Capex	-0.002	0.128	0.223	-0.054	-0.148	0.593	0.311	1			
(9) % Production	0.034	0.149	0.206	-0.085	-0.022	0.291	0.58	0.517	1		
(10) % Capex growth rate	0.017	0.06	0.008	0.041	0.017	-0.084	-0.069	-0.076	-0.055	1	
(11) Head count (t-1)/Capex t	-0.077	0.068	-0.093	0.017	-0.051	-0.66	-0.074	-0.148	-0.105	-0.016	1

Table 5.1 Summary stats for H2

	N	Mean	Std. Dev.	Min	Max	p25	Median	p75
Geological distance	566	0.471	0.263	0	1	0.2	0.4	0.6
Geographical distance (log)	566	8.599	0.79	4.997	9.816	8.048	8.772	9.236
Same language (1 if languages are the same)	566	0.254	0.436	0	1	0	0	1
Male	566	0.898	0.304	0	1	1	1	1
Years worked at the firm	566	6.486	3.167	2	15	4	6	9
Age at redeployment	566	40.982	6.765	23	57	36	42	46
Job level	566	6.248	2.429	1	13	4	6	8

Table 5.2 Correlation table for H2

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) Geological distance	1						
(2) Geographical distance (log)	0.42	1					
(3) Same language	-0.123	-0.405	1				
(4) Male	-0.079	-0.009	-0.03	1			
(5) Years worked at the firm	-0.048	0	-0.007	0.274	1		
(6) Age at redeployment	0.061	0.05	-0.02	0.158	0.56	1	
(7) Job level	0.217	0.231	-0.115	0.043	0.439	0.297	1

Table 4 Employee Redeployment from HQ

Dependent variable: Assigned from HQ

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
M&A subsidiary	0.448*	0.327*	1.057***	0.757*	0.892*	0.803*		2.131***	4.964
	(0.185)	(0.161)	(0.303)	(0.341)	(0.363)	(0.383)		(0.631)	(9.153)
Entry year	-0.0906*	-0.0488	-0.103*	-0.106*	-0.126*	-0.123*	-0.128*	-0.044	-0.726
	(0.042)	(0.038)	(0.046)	(0.051)	(0.053)	(0.056)	(0.056)	(0.082)	(0.650)
Log capex	0.112								
	(0.058)								
Log production	0.0112								
	(0.077)								
Log distance	0.292	0.239	0.485	0.968	1.031*	1.122*		0.690	(4.088)
	(0.242)	(0.215)	(0.437)	(0.497)	(0.513)	(0.534)		(0.848)	(18.790)
Time difference from HQ	0.00914	-0.00201	-0.0168	-0.0434	-0.0569	-0.0587	-0.0582	-0.0872	1.3
	(0.025)	(0.025)	(0.040)	(0.042)	(0.044)	(0.044)	(0.044)	(0.072)	(1.056)
% Capex		-1.824	-2.804	-3.756*	-3.920*	-3.377	-3.41	-5.238	-30.76
		(1.409)	(1.788)	(1.915)	(1.987)	(2.034)	(2.035)	(3.418)	(20.060)
% Production		3.318**	3.579**	3.649**	3.638*	2.857	2.879	1.724	-12.86
		(1.096)	(1.367)	(1.399)	(1.448)	(1.623)	(1.623)	(2.272)	(11.320)
Official language									
Arabic			0	0	0	0	0	0	0
			(.)	(.)	(.)	(.)	(.)	(.)	(.)
Burmese			0.899	1.230	1.213	1.301	1.261	1.882	0.000
			(0.643)	(0.666)	(0.683)	(0.699)	(0.699)	(1.136)	(.)
English			-0.343	-0.487	-0.551	-0.611	-0.607	-0.286	-33.36
			(0.349)	(0.375)	(0.401)	(0.418)	(0.418)	(0.696)	(58.620)
French			0.161	0.184	(0.021)	0.048	0.063	0.611	(7.878)
			(0.359)	(0.403)	(0.424)	(0.433)	(0.433)	(0.719)	(55.480)
Persian			0.917*	0.981*	0.719	0.796	0.803	2.688**	6.999
			(0.420)	(0.496)	(0.517)	(0.527)	(0.525)	(0.973)	(15.190)
Portugese			-0.584	-0.586	-0.916	-0.996	-1.037	0.204	-5.785
			(0.511)	(0.525)	(0.547)	(0.562)	(0.565)	(0.944)	(55.950)
Russian			-0.739	-0.247	-0.497	-0.265	-0.283	-0.616	-6.724
			(0.428)	(0.516)	(0.546)	(0.584)	(0.584)	(0.871)	(51.820)
Spanish			-0.204	-0.446	-0.667	-0.714	-0.734	-0.184	-12.7
			(0.439)	(0.456)	(0.479)	(0.500)	(0.501)	(0.869)	(30.140)
Stage									
Development			0	0	0	0	0	0	0
			(.)	(.)	(.)	(.)	(.)	(.)	(.)
Development and Producing			0.677	0.723	0.618	0.632	0.628	2.575**	(9.262)
			(0.419)	(0.426)	(0.426)	(0.429)	(0.429)	(0.866)	(50.040)
Exploration			2.034***	1.926***	1.705**	1.759**	1.780**	3.151**	-3.648
			(0.499)	(0.537)	(0.541)	(0.551)	(0.552)	(0.970)	(50.950)
Exploration and Development			1.677*	1.214	0.980	0.964	0.994	3.332*	23.350
			(0.664)	(0.719)	(0.735)	(0.740)	(0.742)	(1.336)	(18.230)
Exploration, Development and Producing			1.377**	1.173*	1.081*	1.087*	1.113*	3.012**	-5.811
			(0.482)	(0.510)	(0.510)	(0.514)	(0.516)	(1.038)	(7.558)
Producing			1.789**	1.602*	1.472*	1.575*	1.592*	3.503**	0.000
			(0.585)	(0.627)	(0.631)	(0.648)	(0.650)	(1.209)	(.)
Institution Category									
Category=1				0	0	0	0	0	0
				(.)	(.)	(.)	(.)	(.)	(.)
Category=2				-0.516	-0.524	-0.637	-0.604	-0.625	-12.45
				(0.426)	(0.453)	(0.479)	(0.482)	(0.710)	(16.410)
Category=3				-0.772	-0.71	-0.861	-0.835	-0.367	-16.95
				(0.469)	(0.500)	(0.523)	(0.524)	(0.780)	(21.260)
Category=4				-0.482	-0.527	-0.537	-0.51	-0.139	-9.578
				(0.456)	(0.483)	(0.504)	(0.506)	(0.732)	(9.300)
Category=5				-1.251*	-1.054	-1.145	-1.11	-1.191	-15.97
				(0.543)	(0.571)	(0.588)	(0.591)	(0.921)	(22.360)
Headcount at (t-1)/Capex at t					-0.00458	-0.00455	-0.00456	0.314	-0.023
					(0.002)	(0.002)	(0.002)	(0.223)	(0.041)
% Capex growth rate						0.000461	0.0004		
						(0.002)	(0.002)		
Greenfield × Log distance							1.057		
							(0.540)		
M&A × Log distance							1.150*		
							(0.533)		
Constant	176.3*	94.1	198.7*	202.8*	242.1*	235.5*	245.1*	78.47	1502.8
	(82.480)	(75.820)	(91.300)	(100.800)	(105.500)	(110.100)	(110.700)	(162.200)	(1357.600)
Year FE	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	984	1302	1302	1302	1230	1207	1207	596	532
Prob > chi2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0015

Standard errors in parentheses

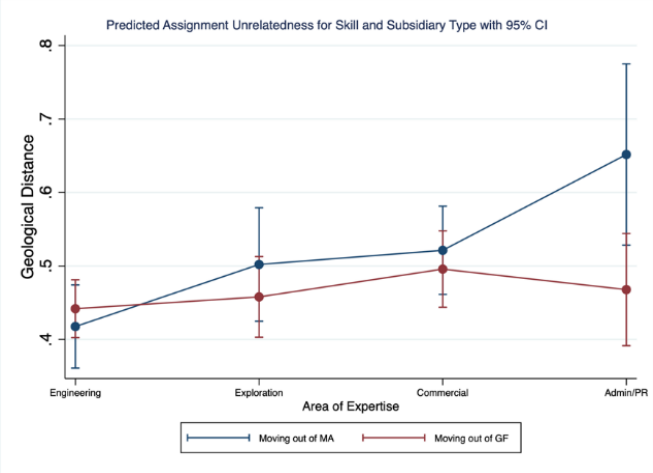
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 6 Knowledge flow from both types of subsidiaries

Dependent variable	**Geological distance [0,1]**			
	(1)	(2)	(3)	(4)
Area of expertise				
Engineering	0	0		
	(.)	(.)		
Exploration	0.158	0.162		
	(0.114)	(0.114)		
Commercial	0.293**	0.385***		
	(0.112)	(0.112)		
Admin & Foreign Affairs	0.351*	0.326*		
	(0.151)	(0.151)		
Individual level control				
Male	-0.0951		-0.0797	-0.0918
	(0.176)		(0.173)	(0.172)
Age	-0.0326***		-0.0325***	-0.0321***
	(0.009)		(0.009)	(0.009)
Job level	0.0501*		0.0475*	0.0466*
	(0.021)		(0.022)	(0.022)
Years worked	0.0751**		0.0751*	0.0740*
	(0.029)		(0.029)	(0.030)
Same language at old and new locations	-0.146			-0.132
	(0.102)			(0.103)
Moving out of greenfield		-0.301**		
		(0.095)		
From M&A × Engineering			0	0
			(.)	(.)
From M&A × Exploration			0.347	0.348
			(0.207)	(0.206)
From M&A × Commercial			0.428*	0.407*
			(0.193)	(0.192)
From M&A × Admin & Foreign Affairs			0.994***	0.963**
			(0.301)	(0.297)
From greenfield × Engineering			0.0982	0.0804
			(0.139)	(0.140)
From greenfield × Exploration			0.165	0.146
			(0.162)	(0.162)
From greenfield × Commercial			0.325*	0.306
			(0.163)	(0.165)
From greenfield × Admin & Foreign Affairs			0.206	0.2
			(0.198)	(0.199)
Constant	1.226	-0.0983	1.084	1.128
	(0.709)	(0.093)	(0.690)	(0.715)
R^2				
Observations	566	566	566	566

Robust standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Figure 5 Predicted margins of geological distance for different skills and subsidiary types

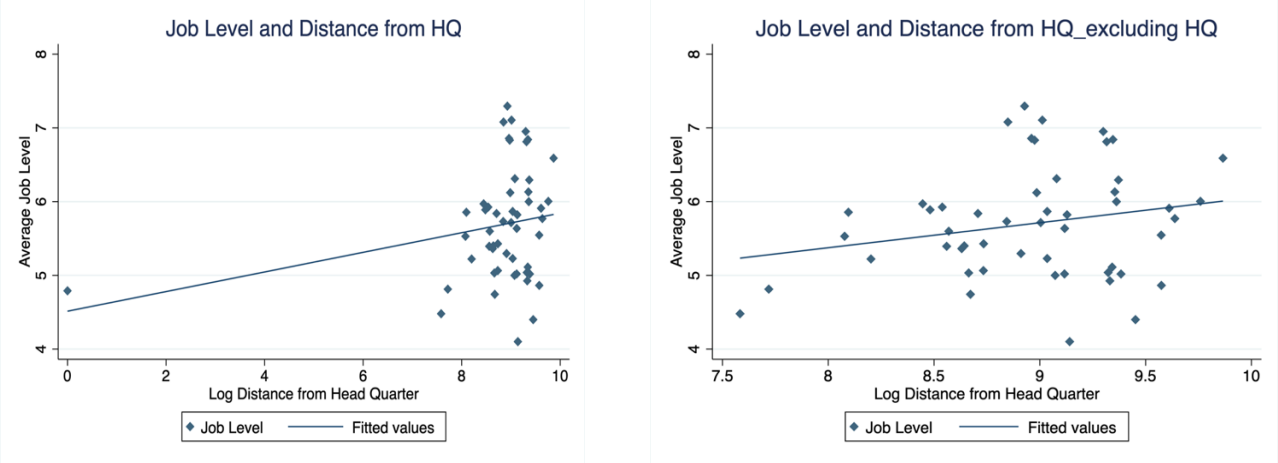


APPENDIX

A1 Employees need incentives to be redeployed to remote locations

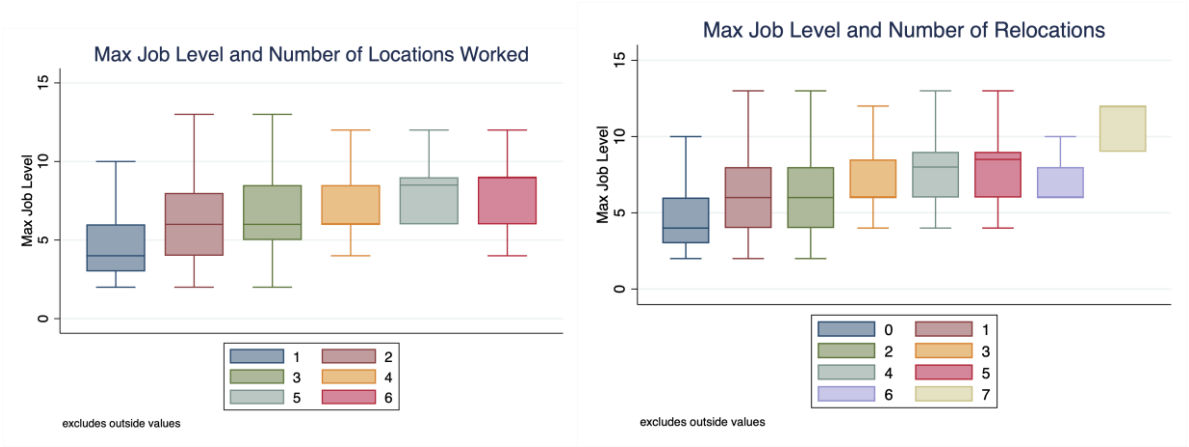
Relocating employees is costly as firms have to compensate employees for their adjustment and adaptation effort. Below we present evidence for this assumption.

Figure A1.1 Employees' job level as a function of geographical distance from HQ



Job level here is used as a proxy for compensation since compensation is a linear function of job level. The graph on the left includes HQ; the graph on the right doesn't.

Figure A1.2 Employees' highest job level attained and number of locations worked



The higher the mobility, the higher job level the employee would attain. The graph on the right differs from the left in that it captures the number of "relocations" instead of "location"—a person can move back and forth the same location.

A2 Measure of location relatedness: geological distance

A measure of geological distance is developed to reflect the (dis)similarity of two locations in terms of geological characteristics.

Method: Jaccard similarity/dissimilarity.

The Jaccard coefficient measures similarity between finite sample sets, and is defined as the size of the intersection divided by the size of the union of the sample sets:

$$J(A,B) = \frac{|A \cap B|}{|A \cup B|} = \frac{|A \cap B|}{|A| + |B| - |A \cap B|}$$

Measure range: [0,1]

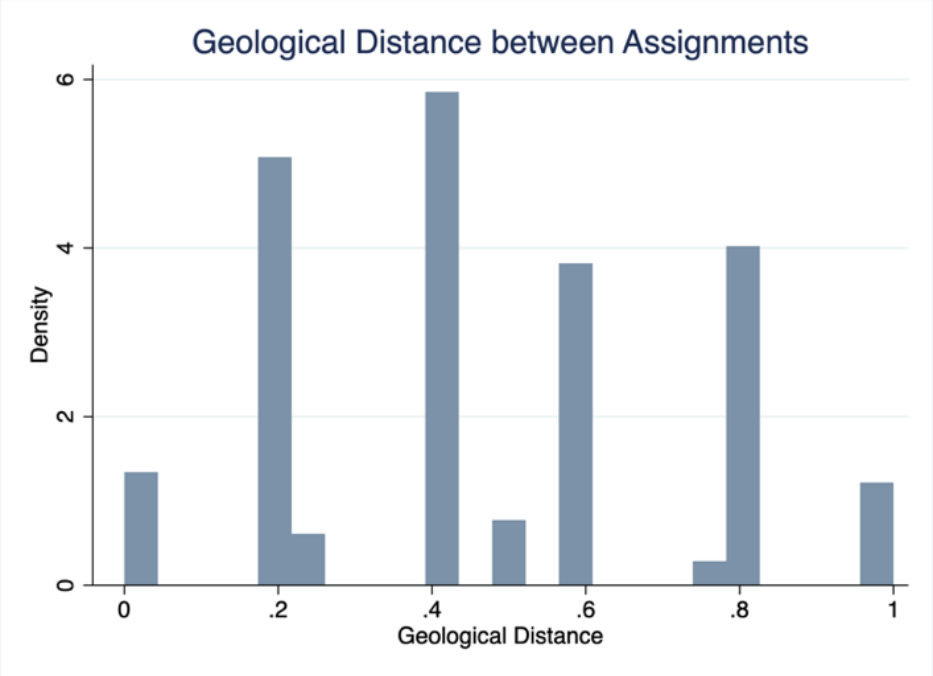
The measure is constructed based on five most important dimensions that determine the geological feature of a place:

1. Rock type: sandstone or carbonate
2. Trap type: structural or lithological
3. Specialty: fault block, anticline, complicate fault, base water, turbidite, unconventional
4. Where: Onshore, offshore
5. Resource type: light oil, heavy oil, gas

A distinction is being made between *geographical distance* and *geological distance*. The geological distance between Angola and Brazil is 0.2, while the geological distance between Cameroon and Gabon (though both in Africa) is 0.4, and the geological distance between Colombia and Brazil (though both in South America) is as high as 1.

Why? Because the two continents were together billions of years ago. Angola and Brazil belong to the same "passive transform margin" and are both rich in offshore oil and gas resources. Figure A2 shows the distribution of geological distance between assignments.

Figure A2 Distribution of geological distance



[i] While Harzing (2002) adds international strategy, i.e. the "global" and "multidomestic" typology, as an independent variable to explain entry modes and subsequent management of subsidiaries, our paper posits that entry mode *is* the strategy. This is in line with the "emergent strategy" concept of Mintzberg & Waters (1985) and fits the evolutionary theory of the firm (Nelson & Winter, 1982).

[ii] Countries entered via greenfield investment: Algeria, Australia (prior to 2008), Brazil (prior to 2011), Cuba, Gabon, Indonesia, Iran, Myanmar, Nigeria, Oman, Russia (A), Saudi Arabia, Venezuela, Yemen. From 2009 to 2013, the firm set up three big regional offices in Moscow, Dubai, and Panama City, with the main mandate of business development. They were also considered greenfield investment. Countries entered via M&A include: Angola, Argentina, Australia (from 2008), Brazil (since 2011), Canada, Cameroon, Colombia, Ecuador, Egypt, Kazakhstan, Russia (B), Sudan/South Sudan, Syria, Trinidad and Tobago, the US, and the UK. Russia appears twice because in Russia the firm invested in two projects which are geographically far away from each other and were managed separately.

Charismatic Leader and Ethical Corporate Governance: Exclusion, Disregard, and Inertia

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Charismatic Leader and Ethical Corporate Governance:

Exclusion, Disregard, and Inertia

Abstract

Corporate governance involves replacing a CEO who is under suspicion of misconduct. How should the members of the board treat the targeted CEO whose ethical performance should not be overlooked? Using news source, we trace an ousting case of a charismatic manager, Mr. Carlos Ghosn from Nissan from November 2018 due to an allegation of misconduct. Mr. Ghosn's incident suggested the issue; how can board members replace the top management when they believe the CEO misconducts. What actions can be taken when the CEO is not expected to voluntarily leave because he is supported by the shareholders? The case study approaches from Hirschman's trichotomy of "exit," "voice," and "loyalty" and concludes that Hirschman's model incorporates voluntary moves and it lacks the conceptualization of hierarchical power in an organization. We propose that three concepts of "exclusion," "disregard," and "inertia", which complement to depict the organizational dynamics under the power structure. While management layers exist in an organization

with hierarchical power, “exclusion,” “disregard,” and “inertia” act for board members’ possible modes of responses. The new trichotomy depicts the power structure of human resources management in a multinational corporation.

Keywords: corporate governance; power, exclusion; disregard; inertia.

INTRODUCTION

Assuming that the CEO's behavior is illegal and socially and ethically unacceptable, what can you do with this CEO as a board member? When you and some directors are skeptical of the CEO's behavior who is on the board of a large company, taking action within a company with regard to the concern is a difficult task. Revealing the facts has a significant impact on the performance and survival of the organization. What can be done to remove, if necessary, the target CEO from the company's highest position? If the CEO is also a member of the company's major shareholders, is there a way for a board member to make the CEO resign from the company? In that case, it is highly likely that the board decision will be rejected at the general shareholders' meeting even if the board of directors resolves to dismiss the CEO. What are ways to prevent this?

These inquiries are important because we occasionally observe the ousting of charismatic manager from a prominent company. A typical example is the case of Mr. Carlos Ghosn whose managerial power was stripped as the chairman in Nissan board in November 2018. By tracing the process after this date up to November 2019, one can see that Mr. Ghosn was then in the highest positon of corporate governance hierarchy but this simple fact indicates the some consequence. Demotion of CEO involves corporate restructuring when corporate

performance is not satisfactory from the view point of the board of directors or major stock holders. When the performance of a corporation gets worse, the board members cannot wait for the CEO to exit voluntarily from the organization. The CEO should be replaced by new one. It is because the ultimate responsibility is taken by him/her. In that stage of restructuring, the board member would want to oust the CEO. At the same time, the CEO may feel responsible for streamlining organizational members in the management layer under his or her control.

A research question in the present study relates these two consequences. When a firm needs to replace a CEO at the highest rank of the organization, how the other members of the organization would treat the targeted CEO who does not wish to leave. In order to consider the power structure in an organization, or to answer to this research question, we incorporate Hirschman's (1970) model into the setting of corporate governance, which involves in board members as organizations' administrators. We can then discuss the behavioral patterns being observed inside the corporate organization.

By reviewing the organizational principle presented in Hirschman's book (1970), the present paper proposes a set of new three principles for the corporation. Hirschman (1970) examined "exit" and "voice" options in decision-making under a situation of organizational decline. He

further discussed the effect of “loyalty,” which affects both “exit” and “voice.” Because Hirschman (1970) had envisioned a political organization in his work, an implicit assumption of his discussion was that “exit” and “voice” were taken up as voluntary actions by organization’s members. This assumption, however, limits applicability to management organizations. Even though a management organization is built on voluntary participation by individuals and subsequent withdrawal is based on individual will, management of a firm sometimes requires corporate restructuring with reshuffled board members and with streamlined employees (Cannings, 1992).

Hirschman (1981, pp. 223 - 224) noted in a retrospect of his 1970 work that one reader had commented on his work; various organizations’ top management perspectives were not addressed in Hirschman’s discussion of “exit” and “voice” options. The present study explicitly assumes that the organization includes a managerial layer. When a management layer exists in an organization, the administrator bears responsibility for its management layer. Management of CEOs differs from that of employees even though both of them work together in a company (Mowbray, Wilkinson, & Tse, 2015; Lam, et.al., 2016).

Barnard (1938) and Simon (1945) further detailed the prerequisites for this subjective condition. These authors note that the organization achieves equilibrium by a balance

between inducement and contribution. Individuals join the organization when the incentive to join exceeds the contribution required when joining. This is an example of a balance between incentive and contribution. Other examples involve the balance between the wages presented by companies and work hours, or the balance between power in the organization and obligations that follow such power structure.

If the time dimension is included in the above example, we can observe that an element of opportunism exists, as noted by Williamson (1975, 1985), in that a contractor contends before but the contractor can change after a contract is executed. In other words, as in the restaurant example, it is implicitly assumed that the customers' expectations are betrayed. For the restaurant, it is possible that the quality of dishes listed on a menu can be disgraceful and offered to customers at least once to the multiple visitors. Conversely, it is also possible for customers to speak out against the restaurant. Williamson (1985, pp. 257-261) states that this situation is similar to a one-shot market transaction and gives the possibility of speaking in trade union activities as an example. In such a case, the restaurant can ignore their customer's voice. The restaurant's owner holds the right to manage their cuisine, and if a customer's voice is excessive, it may be possible to eliminate the customer from the establishment. What attitude does a restaurant employee have if they frequently receive complaints from

customers? Even if the customer's claim is partially correct, the restaurant owner can ignore it and exclude the voice from these customers. Even if an employee continues to work, they work due to inertia and repeat routine work, which will not lead to activities to improve the restaurant's service. There is also a way for employees of the restaurant to exclude restaurants owners. To do that, it is to hold the evidence that the owner of the restaurant is evading income tax and accuse it against the National Taxation Bureau. If a restaurant owner is arrested, the restaurant will have the possibility to be managed by the employee.

When the growth of a corporate organization slows down, managers need to act to respond. In this situation, voluntary action based on the spontaneity of the members of the organization may be available. However, there may be some restrictions on the voluntary behavior of organizational members. For our research question, consider the case where this limited autonomy is institutionalized by the corporate hierarchy. In other words, the CEO is supported by major shareholders and is not required to voluntarily resign. Therefore, one cannot expect to correct unethical management behavior. How can the board act if a board member wants to demote the CEO of a corporate organization in a declining organization?

THREE BASIC CONCEPTS WITH HIERARCHICAL POWER

Assuming a hierarchical power exists inside the organization (Fanelli & Misangyi, 2006), we

propose that three concepts of "exclusion," (Sen, 2000) "disregard," (Zhu & Chen, 2015) and "inertia" (Hannan & Freeman, 1989) will be of importance. "Exclusion," "disregard," and "inertia" could be used to depict the examples of a board members' possible modes of action in response to organizational members' "exit," "voice," and "loyalty." We propose that the administration has options to deal with the CEO member, being different from Hirschman's three concepts of "exit," "voice," and "loyalty." The present inquiry examines organizational principles that are contrasted to Hirschman's three concepts of "exit," "voice," and "loyalty", which is responsible for the management of the organization's members when the organization falls into decline (Morrison, 2011). When management layers exist in an organization facing decline, Hirschman's concepts of "exit," "voice," and "loyalty" exist supplementing the conceptualization of organizational behavior.

Hirschman (1970) built a theory of political economy by questioning why the Nigerian railroad's performance remained sluggish despite facing competition from trucks. He developed a theoretical model on why this mechanism does not work. As a developmental economist, Hirschman doubted the competitive mechanism in theoretical economists and in their economic models (Hirschman, 1958, 1963, 1967). Three concepts—exit, voice, and loyalty—are the core constructs in his theory. They are established themselves as the basis

for political science and the institutional approach in economics. Hirschman (1993) also used the "exit" concept to explain the reunification of East and West Germany; according to him, it was achieved due to an inflow of refugees from East Germany. However, one must also scrutinize Hirschman's theory to ascertain whether the theoretical content takes into consideration the managerial perspective.

The first set of concept that Hirschman (1970) discussed were "exit" and "voice." His illustration is about a situation when entering a restaurant. If it exhibits poor taste, Hirschman reasons that one can either exit the establishment ("exit"), or speak up to improve it ("voice"). Hirschman (1970) was conscious about the actions taken by an organization member. When the organization fell into decline, the members consider the steps necessary to prevent and reverse such an event (John, 2017). Here, one needs to be conscious to the subtitle of Hirschman (1970), "*responses to decline in firms, organizations, and states.*" He also observed development projects in Latin American countries and noted that a number of workers left a country when its economic policies failed (Dowding, et. al., 2000). There was an increasing number of Hirschman's application (Keely & Graham, 1991; Judge, 1995; Jackson, 2008).

The third concept proposed by Hirschman is "loyalty." Given a situation in which their "voice"

continues to be ignored in the organization, those with loyalty to an organization voluntarily leave the organization. Barry (1974, p.91) notes that a "staying" option is "non-exit" option as opposed to an exit. He also claims that "silence" is an option as opposed to "speaking out" (or "voice"). The concept of staying within an organization is in marked contrast to an employee's exit, while the concept of the "voice" inside the organization is opposed by silence. Some scholars add "neglect" (Farrell, 1983; Rusbult, et.al. 1988; Withey & Cooper, 1989) to the three concepts of exit, voice, and loyalty in relation to employee management (Naus, van Iterson, & Roe, 2007).

We will explain three concepts of exclusion, disregard, and inertia deeper in the following section and we develop a case study on the Carlos Ghosn and Nissan incident from November 2017 to 2019.

EXCLUSION AS FORCED EXIT

Hirschman (1970) assumes that an increasing number of employees will voluntarily exit when the company's performance declines (see Figure 1). In an economic downturn, new hires are pared down and new graduates are eliminated. In the case of a sudden economic fluctuation, such as the shock caused by Lehman Brothers' bankruptcy in 2008, necessary personnel were adjusted in the company and the recruitment contracts with the new

employees were cancelled. The contracts of temporary employees were reviewed and those of fixed-term contract employees were terminated. This means that the company preferred to conclude a short-terms contract with an employee dispatched from a hiring agency.

When the business situation deteriorates, the board members may adopt various methods to encourage the employees to exit. This process can be called as “exclusion” (see Figure 2). The company does not wait for them to voluntarily retire. Various measures that encourage the CEO to retire voluntarily can also be taken (see Figure 3). For example, “shoulder patting” is a persuasion measure that prompts those soon to retire to believe that their performance is unnecessary to the company’s management. Thus, the CEOs who receive the “shoulder patting” would begin considering voluntary retirement from the company. Various personnel measures include “orders to be dispatched” from the current company to an affiliate, which is called as a “transfer to an inexperienced position,” or an “unexpected transfer.”

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Figure 1 and Figure 2 are about here

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There are methods such as "dispatching", "relocation", "higher numerical responsibility", "lower annual salary", and "demotion" as persuasive methods for expelling directors from

an organization. While these measures do not directly replace “recommended retirement” practices, such treated CEOs may begin to consider “exit” options at the will of the board. "Exclusion" is one such expelling method. In short, this is a way to encourage voluntary withdrawal. As shown in Figures 1 and 2, the difference between exit and exclusion lies in the difference towards the direction in which administrative authority is exercised. The individuals who make the exit decisions from the organization are based on voluntary decision making. On the other hand, individuals excluded from the organization are given undesired personnel policies by the power of the organization.

Hirschman’s argument (1970) aimed to bridge political science and economics. Thus, it had inherent limitations. For example, if such organizations as political parties experience decline, party members may voluntarily attempt to induce new party member at that time. Alternatively, a party’s decline, owing to a dip in electoral voting rates, is unlikely to lead to “exclude” the party members. Even when political parties experience declining support, it is not necessary to reduce the number of party members; rather, action is needed to increase their party numbers. As the number of party member increases, the party’s political income of membership fee is expected to increase.

Business management and party organizations differ in spontaneity; employees working at

such workplace as declining do not always mourn a lack of work when there is a slowdown in corporate productions and sales performance worsens. Employees would be positioned to enjoy low-intensity workloads due to the fewer tasks. In extreme cases, employees will continue to receive salaries without performing work, unless corporate managers enact some countermeasures. The "exclusion" option is not limited to the phenomenon of staff reduction (Sen, 2000); this concept is also observed in internal decision-making processes. Regarding corporate management, profit levels determine the organization's existence, unlike in civil services. Therefore, business managers will be forced to adjust the resources of the firm when companies decline; this is not the case in political parties. In contrast, a company's sales will not increase merely with an increase in the number of employees. We can derive the following proposition based on the above discussion:

Proposition 1. When an organization with a powerful CEO management faces decline, the organization's board member try "excluding" the CEO.

DISREGARD AS SUPPRESSING VOICE

Proposition 1 describes the intention of the organization's members in the case of declining phases. We then consider how their own attitudes vary from "voices" to an extreme case such as "disregard" when appropriate attitude is considered in decision-making. The management

team has a possible option of “disregard” when they attempt to exclude a “voice” that is contested from the organization member (see Figure 2). The discussion below focuses on the “disregard” option, which ignores “voice” by the management, as is contrasted to “silence” (Barry, 1974) of employees’ voluntarily choice.

Even if one employee recognizes the organization’s decline and he or she can sense the crisis about the organization’s future, their voice may be ignored. Suppose an employee uses the “voice” option to caution the cause of the organization’s decline, suggesting a problem with past or present management methods (Xu et.al., 2019). The “voice” tends to be neglected because corporate organizations are hierarchical in nature, and the upper hierarchy’s executive level can exercise their decision-making authority. If the growth of a firm stops and the corporate organization shrinks, the higher-ranking managers will bear some responsibility. Therefore, the problem of managerial responsibility emerges immediately after admitting the caution—by employees who adopted the “voice” option—about the cause of organizational decline. In this situation, however, pinpointing the location of managerial responsibility is not always easy. Assuming an organization’s members are also accountable for the decisions made by upper-level management, a majority of the organization’s members will also feel responsible for its decline.

Although the company's employees in an organization facing a declining may notice that the management team's past strategies and implementation methods were inadequate, their opinions will be ignored. If an employee who adopted the "voice" option took up the issue of management's responsibilities with the upper-level executives, the employee would first be excluded from the decision-making field. Furthermore, various elimination methods exist for the front line workers; "dispatching" or "rearrangement of position" effectively and physically separates the speaker from the head office and creates distance from the managerial layer. Other method of elimination, such as "demotion", involves a higher risk of litigation for management compared with the "dispatching" or "rearrangement of position". "Demotion" could be subject to the risk of a lawsuit against those in power for harassment. An increase in business tasks, such as "numerical norm as responsibility" and an "annual target system" act as an exclusionary method to deprive employees and managers of their qualifications to voice as the target becomes more difficult to attain. An employee who cannot achieve the occupational norm is considered irresponsible to the company and their complaints will be ignored because someone who cannot fulfill their obligations. Hirschman (1970) also noted that expelling can be interpreted as one of the many means used by the management team in such organizations to limit the exercise of members' voices.

The “voice” option from within the company can influence the management’s way of administration, when a company’s inappropriate practice is disclosed. Anonymous accusations by those outside the company or a reporting system within the company may be used. Even if the “voice” option is adopted, it can be ignored; this may only increase the possibility of excluding the CEO from the decision-making field, and thus, the CEO will be forced to choose the “silence” option. From the above discussion, we can derive the following proposition:

Proposition 2. When power remains in a declining organization’s CEO, and the cause of such decline lies in the CEO’s past decisions, the board members as a group will “disregard” the CEO’s “voice.”

INERTIA AS LOYALTY LOST

According to Hirschman (1970), loyalty to the organization complicates how organization members perceive “voice” and “exit” options. The more the loyalty shown, the less likely that the “exit” option will be chosen; further, it is assumed that a “voice” within the organization will reform the organization, leading to actions that arrest the decline. Hirschman’s discussion is characterized by the assumption that loyalty to the organization is exogenous. However, Barry (1974, p. 98) noted that employees who choose the “voice”

option may increase their loyalty when their recommendations are accepted. Voice is specifically incorporated into the concept of loyalty. Conversely, there will be no increase in the loyalty of the employee whose "voice" is ignored. The state in which individual knowledge is respected by emphasizing tacit knowledge is riskier especially when the members of the organization are disregarded (Horaguchi, 2014), and employees around the CEO formally functions by inertia. According to Laver (1976), loyalty is the result of an outreach to an organizational outcome; if it exists as a variable and affects "exit" and "voice," then the organization would not be in decline (p. 481).

If the management continues to operate as usual, its management recurring routines will be evoked (Nelson and Winter, 1982) from those with low loyalty. In other words, there will be more room for occupational inertia in organizational management (Hannan & Freeman, 1989), while being able to maintain individual employees' feelings of loyalty. As mentioned earlier, the administration tends to ignore the voice inside the organization. If this is the case, the attitude of someone who does not speak out, or who is ignored (Blau, 1964) will be characterized as "inertia." Even if the employee speaks for organizational reform, this may be ignored; the only options for the employee under such circumstances are to exit from the organization or stay on; in the latter case, they will behave like routine processor, or having

inertia in the organization. Even though substantial effort will be devoted to achieve the norm under the administrative mandates that increase responsibility. They include such as a numerical sales norm or the introduction of performance based salary system. There are other possibilities that the employee will be "dispatched" or "relocated to perform work outside of their area of experience." An employee's inertia relative to their work in an organization refers to a low motivation to work, or the state in which the employee makes no effort to improve his or her performance. In contrast, high organizational loyalty refers to a high motivation to work or the employee's effort to contribute to the organization by improving his or her performance.

Distinguishing between loyalty and inertia involves the psychological positioning of the individual who is recognized as possessing them, but obviously not everyone who joins the organization is loyal to it. Employees who join a company may have the sense that they will not stay there. This happens if their primary aspiration was to find better jobs in another company. Consequently, the purpose of exiting is not the failure to reform the organization through their "voices," but the satisfaction of the employee's own upward orientation by a change in job. Such employees may have inert attitudes toward their current organization, and if they can maintain high motivation without inertia, it is only to ensure that they are

highly appreciated at the next workplace. They may not have intentions to ascend in their careers, which may sometimes lead to inertia. The above discussion leads to Proposition 3:

Proposition 3. When the declining organization's management negates voices from its members and seeks to eliminate them, the organization's members will begin performing their routine tasks through "inertia".

DYNAMICS OF EXCLUSION IN NISSAN

The case of Mr. Carlos Ghosn exemplifies the above discussion. As shown in Table 1, the board members and directors of Nissan gave information to the special investigation headquarters of the Tokyo District Public Prosecutors Office so that Mr. Ghosn and his aides Greg Kelly to be arrested by them. This is not a case of exit but a case of exclusion. The reason for the arrest was that Mr. Ghosn's income had not been stated in the annual securities reports for 8 years. Nissan board members and directors ignored the voice from Mr. Ghosn and Mr. Kelly. Nissan disregarded the claim from them.

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Table 1 and Table 2 are about here

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Mr. Ghosn's case shows far more direct method of exclusion. Table 2 summarizes that

Ghosn retired from the top of Renault chairman and CEO, France. By then, he had already been dismissed as chairman from Nissan and Mitsubishi Motors in Japan. Nissan established a new board with a new director Jean Dominique Snart who became a chairman of Renault. Here, we see the combination of exclusion and voluntary exit by Ghosn. It is reported that Carlos Ghosn would receive 4 million euros as he had voluntarily resigned from Renault chairman and CEO. Figure 3 depicts how a CEO is excluded from the firm.

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Figure 3 and Table 3 are about here

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Table 1 and 2 show historical evidence that some CEOs like Mr. Saikawa in Nissan excluded Ghosn by virtue of the power exercised by the managerial layer. In September 2019, Nissan's president, Saikawa, retired as president and CEO because of suspicion of violation of internal regulations on executive compensation (Table 3). Considering the behavior of Mr. Saikawa who noticed the dubious behavior of Mr. Ghosn and Mr. Kelly, he continued working in Nissan. This process involves inertia for those take a stance to be antagonistic to Mr. Ghosn. In October, Nissan has announced a new management system with Makoto Uchida as the next president and CEO. The excluded-CEOs, Ghosn and Saikawa were both considered to

be the most loyal experts in the organization.

DISCUSSION AND CONCLUSIONS

Hirschman's problem setting itself—with the "exit," "voice," and "loyalty" concepts—is not sufficient to depict power politics in corporate organization. Three constructs of "exclusion," "disregard," and "inertia" should be added to explicate organizational dynamics. As Hirschman (1970) have extracted the constructs from observations in the United States and in Latin American countries, I want to propose another set of constructs based on international businesses in Japan and France.

A qualitative data analysis can only reveal the differences between "exclusion" and "exit." Two criteria separate "exclusion" from "exit." The first criterion is subjectivity of the management in an organization that intends to exclude some of its members. The second is the subjectivity of the organizational member in terms of wanting to remain or not considering an exit as an option. Regarding an "exit," an individual member, such as a CEO of the organization wishes to leave. In the case of exclusion, the organizational member or the CEO is ordered to leave based on the board members decision and subsequent approval by the stock holders' assembly meeting despite his or her desire to remain. The case of Ghosn and Nissan revealed that voluntary exit is chosen when ample payment for the retirement is

prepared for the targeted CEO.

Introduction of the three concepts of exclusion, disregard, and inertia makes it possible to understand real contractual relationship between hierarchical power and organization members. Distinguishing between exit and exclusion is useful as an indicator of ease of work and work-life balance at the company. Even though the number of people leaving the company is maintained as public statistics, motivation of the CEOs and their subsequent choices are based on tacit qualitative factors.

Distinguishing “voice” and “disregard” is of importance when it is expected for the organization to rectify such practices as fraudulent accounting, a lack of thorough compliance with quality control standards, or miss-conduct to mix private assets and firm’s credit. Inertia is adopted instead of loyalty when the board members see the inability of a CEO who stays at superior administrative layer in an organization’s hierarchy. Such an organization is in fact similar to those with a management style that emphasizes tacit knowledge.

The motivation of an organization’s members decreases if behavioral patterns of “inertia” become the norm. It is highly likely that choices were made in such cases to repeat routine work through inertia rather than by reforming the work environment. Hirschman (1970) explicitly discussed political processes, such as political parties and immigration. Given the

importance of work-life balance in companies, it is clear that the current securities report is overly biased towards financial data. By clarifying the number of people leaving the company, the number of people the company streamlined, and the number of employees retired at their own convenience, the company will be able to release information on work-life balance.

The limitation of the present study lies in the fact that empirical research is needed to supplement the discussion. Researchers have applied the Hirschman's conceptualization and analyzed numerous cases by applying the concepts of "exit," "voice," and "loyalty" concepts. We propose the possibility of incorporating management's intentions could also capture the influence of "exclusion," "disregard," and "inertia." In practice, various ways to retaliate the "voice" exists such as bullying and harassment. These concepts are not only used as logic to rationalize and reduce employees in corporate organizations but also help to examine the logic when CEOs at the top of corporate organizations are excluded from the organization. For example, a management strategy such as mergers and acquisitions involves capital investments and it could imply the existence of "exclusion," "disregard," and "inertia" in the relationships among stakeholders. Quantitative case study will enrich management theory but the task remains for future research.

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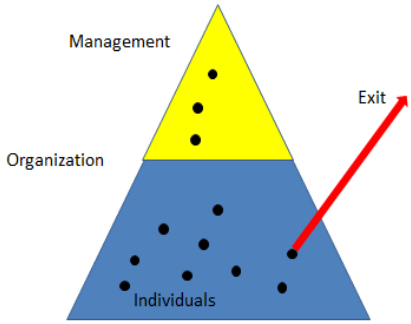
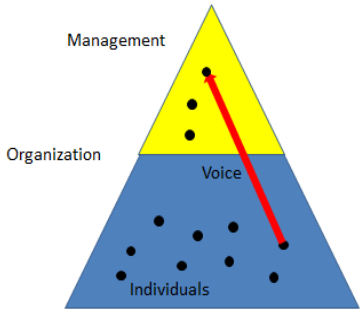
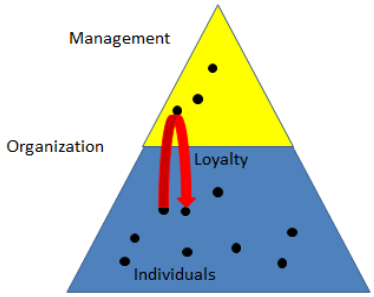


(a) Exit

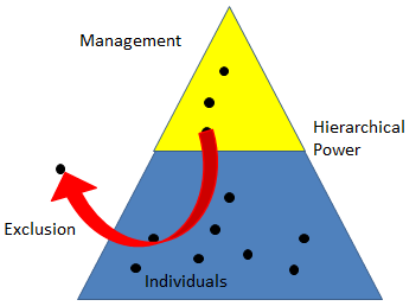


(b) Voice

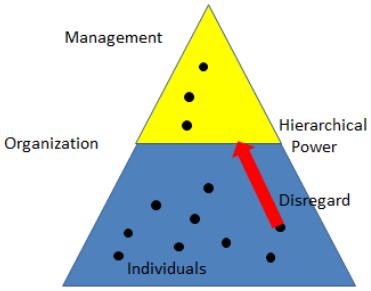


(c) Loyalty

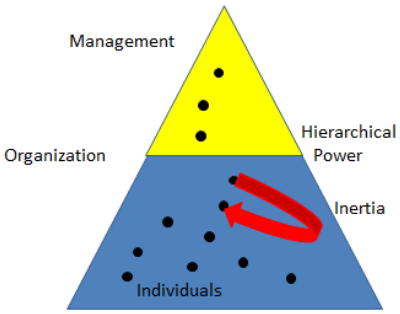
Figure 1.
Exit, voice, and loyalty in organization



(a) Exclusion

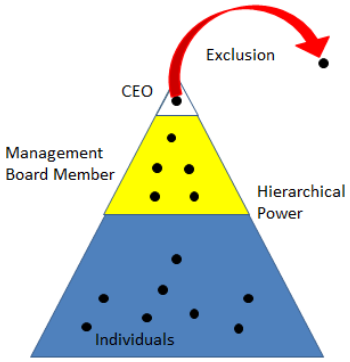


(b) Disregard

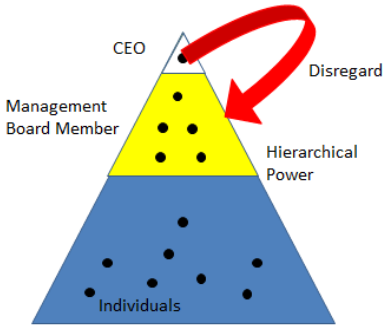


(c) Inertia

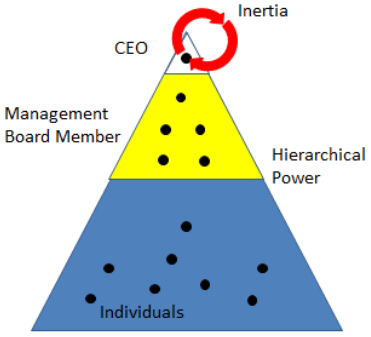
Figure 2.
Exclusion, disregard, and inertia with hierarchical power in organization



(a) Exclusion of CEO



(b) Management Board Members Disregard the CEO



(c) CEO exist as inertia

Figure 3.
Exclusion, disregard, and inertia of a CEO

Table 1. Decisions made by Nissan, Renault and Mitsubishi Motors after Mr. Ghosn's arrest: From November to December 2018

Nov. 19, 2018. The Tokyo District Prosecution Department arrested Ghosn, Chairman of Nissan, and others for alleged violations of the Financial Instruments and Exchange Act. The total executive compensation of Chairman Ghosn for the period from March 2011 to March 2018 of about 9.1 billion yen was not stated in Nissan's securities report. In Nissan, the president Hiroto Saikawa held a press conference and he explained Nissan's dismissal policy to Ghosn.

Nov. 20. Renault decided its Chief Operating Officer, Thierry Bollore as the provisional top of Nissan.

Nov. 22. Nissan held a temporary board meeting and dismissed Ghosn's chairmanship. Mitsubishi Motors also dismissed Chairman Ghosn on the 26th.

Nov. 29. The three leaders of Renault, Nissan and Mitsubishi held a meeting. It decided that the operation of the three-company alliance, Renault, Nissan, and Mitsubishi, will be conducted by a consensus system.

Dec. 10. Ghosn was arrested for violating the Financial Instruments and Exchange Act for the second time. He was prosecuted on January 11, 2019.

Dec. 21. For the third time, Ghosn was arrested on suspicion of violating the company law through a financial intermediary route via Saudi Arabia. He was prosecuted on January 11, 2019.

Source: Nikkei, November 11, 2019, morning edition, p.6, and January 26, 2021, morning edition.

Table 2. Decisions made by Nissan, Renault and Mitsubishi Motors after Mr. Ghosn's arrest: From January to July 2019

Jan. 24, 2019. Ghosn retired from the top of Renault chairman and CEO, France. He had already been dismissed as chairman from Nissan and Mitsubishi Motors. Nissan established a new board with a new director Jean Dominique Snart who was a chairman of Renault.

Jan. 25. According to a French newspaper, Liberation, on the 24th, it is reported that Carlos Ghosn would receive 4 million euros as he had resigned from Renault chairman and CEO.

Feb.13. Ghosn changed his legal counsel to Junichiro Hironaka.

Mar. 5. The Tokyo District Court has decided to authorize Ghosn's former bail. Ghosn paid a bail deposit of 1 billion yen and was released on bail on March 6th.

Mar.12. Leaders of the three companies, Renault, Nissan and Mitsubishi Motors, decided to establish a new conference body by the three companies.

Mar. 27. Nissan's special committee proposed a reform plan for corporate governance.

Apr. 4. The Tokyo District Prosecutors' Special Investigation Department arrested Ghosn for the fourth time on the suspicion of violating Companies Act by operating funds through Oman. The suspicion is due to the special breach of trust crime in the Companies Act.

Apr. 8. Nissan held an extraordinary general meeting of shareholders, and former Chairman

Ghosn was also removed from the board of directors.

Apr. 12. Renault proposed management integration to Nissan, but Nissan rejected the proposal.

Apr. 25. Tokyo District Court granted bail for Ghosn's re-arrest. Ghosn paid an additional 500 million yen of bail deposit and was released on April 26th the following day.

May, 14. Nissan revised the medium-term plan downward. Nissan announced that it would reduce Nissan's global production capacity by 10%.

May, 23. The pre-trial arrangement procedure began at the Tokyo District Court.

Jun. 12. Renault held a general meeting of shareholders. Former Chairman Ghosn was eliminated from the board.

Jun. 21. Mitsubishi Motors held a general meeting of shareholders. Former Chairman Ghosn was eliminated from the board of directors. Gone then left all three key positions.

Jun. 25. Nissan held a general meeting of shareholders. Nissan moved to a company with the nominating committee that separates supervision and business execution. It established the compensation committee and the audit committee.

Jul. 25. Nissan announced a structural reform plan to rebuild its management. It announced plans to reduce 12,500 people worldwide.

Source: Nikkei, November 11, 2019, morning edition, p.6, and January 26, 2021, morning edition.

Yomidasu Rekishikan (A database for Yomiuri newspaper), January 24, 25, 2019.

Table 3. Decisions made by Nissan, Renault and Mr. Ghosn after Mr. Saikawa's retirement: From September to December 2019

Sept. 16. Nissan's president, Saikawa, retired as president and CEO because of suspicion of violation of internal regulations on executive compensation.
Oct. 8. Nissan has announced a new management system with Makoto Uchida as the next president and CEO.
Oct. 11. Renault dismissed Boroleo CEO.
Oct. 24. Former President Ghosn made an alleged innocence during the pre-trial arrangement process.
Nov. 1. Nissan announced on December 1 that it will launch a new management structure with Makoto Uchida as the next president and CEO.
Nov. 12 Nissan revised its earnings forecast for the fiscal year ending March 31, 2020 downward.
Dec. 30 Ghosn, who was on bail, left Japan for Lebanon without legal procedure. A Lebanese presidential spokesman explained that they acknowledged that Ghosn arrived in Lebanon between midnight 29th local time and early morning 30th local time. The defendant entered the airport in Beirut, presenting his French passport and Lebanon ID.

Dec. 31 As Ghosn paid a total of 1.5 billion yen as bail deposits, 1 billion yen on bail in March 2019 and 500 million yen on bail in April the following year, the Tokyo District Court canceled the bail at the request of the Tokyo District Prosecutor on the 31st. The deposit was confiscated and Ghosn was again subject to be detained. Japan does not have a treaty with Lebanon to surrender suspects or defendants who have fled, and it is necessary for Japanese authorities to request the surrender to the local authorities in Lebanon through diplomatic routes.

Source: Nikkei, November 11, 2019, morning edition, p.6. Yomiuri, January 1, 2020, morning edition.

A conceptual framework of cultural competence: a case study of a Japanese multinational in a cross-national context

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A conceptual framework of cultural competence: A case study of a Japanese multinational in a cross-national context

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Abstract:

This article proposes a diagrammatic framework[1] to address the theoretical concept of cultural competence. Bridging prevalent concepts available in literature, it posits a simple yet versatile multi-level framework with two extremes to capture a spectrum of cultural specificities. Through a case study on a Japanese automobile conglomerate partly with European management, it concludes that cultural competence can be shown on a linear scale in the systematic framework. The findings advance the concept of cultural competence and the proposed model may be used as a foothold for future research possibly in any combination of cultures. This study is not to claim that different cultures are uncompromising but to consider how to reconcile them in a cross-cultural setting.

Keywords: ACR-OCR, cultural competence, cross-cultural management, Japanese style management, national culture, Nissan Motor

[1] The original framework was presented at the 31st Annual AJBS Minneapolis Conference in 2018. This article develops it to discuss the concept of cultural competence.

Introduction

In the past three decades, there is growing interest in investigating the role of culture in a business context. Geert Hofstede pioneered research into national cultures and coined the concept *cultural dimension* (1980). Before the publication of Hofstede's first book *Culture's Consequences*, cross-cultural management was not even a well-defined academic area (Holden, 2014: 187). Since then, Schwartz (1992), Trompenaars and Hampden-Turner (1997), and the Project GLOBE (House et al., 2004) have carried out similar research with the same aim to substantiate the cultural constructs as two extremes of a linear scale for capturing the regionally shared ways of thinking observable between them. Their works (the "major projects") have become the foundation of today's cultural studies. The major projects commonly report some form of individualism and its opposite, often referred to as collectivism ("I/C"), as the grounded extremes of cultural patterns (Thomas and Peterson, 2017). Other distinct pairs of extremes include different perspectives of time orientation, which is reported similarly as short-termism (Jacobs, 1991) or the time span for reciprocity (Sako, 1992) even from outside cultural studies. The advances made in the 20th century may be summarized as an exploration of how cultures differ across societies. Drawing on those valuable models, this article attempts to build a versatile framework aligned with current trends.

Frequently discussed alongside national culture is the ability to function well in different cultures. PricewaterhouseCoopers, known as PwC, one of the largest auditors in the world, reports on a global survey of 132 senior executives that culture incompatibility is the most common cause of cross-national merger and acquisition failure (PricewaterhouseCoopers, 2017: 11). Their report corresponds to a myriad of scholarly discussions: In the field of international human resource development ("IHRD") for example, "Issues related to diversity have emerged as a key contextual influence and, as a consequence, both countries and organizations are concerned to effectively use

IHRD practices to meet the needs of increasingly diverse labor pools and workforces" (Garavan, McCarthy and Carbery, 2017: 8). The cultural ability may become a prerequisite in the future, if not at present, for successful cross-national management at multinationals with diverse teams of employees. The frequently used terminologies to refer to the cultural ability include *multiculturalism* (Vora et al., 2018), *cultural competence* (Trompenaars and Hampden-Turner, 2012), *cultural intelligence* (Thomas and Inkson, 2004), and *biculturalism* (LaFromboise, Coleman and Gerton, 1993). Described differently, the basic idea of the cultural ability appears widely discussed. This article uses the terminology *cultural competence* for discussion purposes, though it does not reject other commonly used definitions.

Despite the growing importance of cultural competence, there appears to be no concrete framework of the concept available for use in today's rapidly globalizing world. The reason for the unavailability seems twofold: the conceptual (or definition) and methodological issues with national cultures innate in cultural research (Jones, 2007). However, the literature offers clues to tackle the issues inevitable at the individual level. Sako (1992) provides a useful framework entitled Arm's-Length Contractual Relation ("ACR") and Obligational Business Relation ("OCR"), based on empirical evidence discovered in the electronics industry in the UK, where the local and the Japanese businesses were compared for Sako's study. The aim of this article is to propose and test a simple yet versatile diagrammatic framework to illustrate the concept of cultural competence by developing the ACR-OCR model. Despite being published roughly 30 years ago, ACR-OCR is chosen as a theoretical foundation among others because it has the best potential to mitigate the methodological issue mentioned earlier. ACR-OCR has two extreme ends of a continuum to capture any variants of trading patterns, which respectively represent the regional corporate activities based on the corporate decisions at the organization level. ACR-OCR essentially has the same structure as that of the cultural models of the major projects. This shared feature suggests that ACR-OCR

and the cultural models can be combined for holistic research on the whole consisting of multiple levels, as long as a consistent unit of analysis (Neuman, 2006) connects the levels.

This article uses I/C to link the I/C-driven business patterns, or alternatively said, the proposed framework captures the corporate activities that are "embedded" (Williams and Zumbansen, 2011) in I/C. National culture inevitably comes with the methodological issue because it is a construct at the individual level. However, it becomes tangible with evidence of a culturally driven practice obtained at a higher level. This evidence alleviates the issue, as long as the evidence is I/C driven. This article refers to the connection between the levels as *culturally driven*. Based on this presumption, this article conducts a qualitative meta-synthesis (Finlayson and Dixon, 2008; Walsh and Downe, 2005) of multiple levels. Methodologically, it employs a grounded theory approach (Strauss and Corbin, 1998), triangulating the original findings solicited at the organization level and the individual-level models available in cultural studies for maximizing research confidence.

This article first revisits the concepts of cultural competence for the individual level. Second, it reviews literature on two different reasons (E-type vs. C-type) for being in business (de Geus, 2002) for the social system level, and two different forms (strategic alliance vs. keiretsu) of corporate groups (Miyashita and Russell, 1994) for the organization level. Treating these literature concepts as dichotomies with two extremes of a linear continuum, it will propose a three-level framework named Arm's-Length Business Relation ("ABR") and Obligational Business Relation ("OBR") and test its theoretical validity. It is partially named after ACR-OCR because it is partly built on ACR-OCR. It differs from ACR-OCR in that it assumes general applicability to any industry between Japan and other countries, while ACR-OCR has its theoretical coverage of the electronics industry in Japan and the UK. The ABR-OBR framework is a theoretical field to

represent a cross-cultural setting, where cultural competence functions across the levels[2]. The model is tested against the qualitative findings obtained through a case study on Nissan Motor Co., Ltd., a Japanese automobile conglomerate[3]. This article concludes that cultural competence plays an important role, which can be explainable with the framework.

Cultural competence

Hicks (2003) offers a review on the historical antecedents of the cultural ability in the context of global education in the UK and North America. According to Hicks (2003: 266), in the 1960s, James Henderson et al. at the University of London Institute of Education coined the terminology *world studies* as "shorthand for recognition of the need for a global dimension in the curriculum". In the 1970s, Robin Richardson directed the World Studies Project, which organized educational conferences in the UK mainly for secondary teachers and NGO educators promoting world studies (Ibid.: 266). Richardson's *Framework for exploring global issues* (1976) consisted of four elements, namely *values, background, action, and problems*, all of which interrelated with each other (Ibid.). As the World Studies Project was becoming a mainstream form of research in the UK, educators in the USA started developing frameworks and systems for global education. Hicks (2003: 267) names Anderson (1968), Becker (1975), and Hanvey (1976) as influential authors. Hanvey's work *An Attainable Global Perspective* consists of five elements: perspective consciousness, "state of the plant" awareness, cross-cultural awareness, knowledge of global dynamics, and awareness of human choices (1976). Since then, scholars and researchers in social science, including cultural studies, have developed relevant concepts on cross-cultural subjects over the last half-century.

[2] Prior to this study, the framework is used in the contexts of the automobile industry (Kitamura, 2019) and the financial sector (Kitamura, 2020).

[3] This article examines the Nissan group, including its former CEO, Carlos Ghosn. This study focuses on Ghosn's positive contributions made to the Nisan group between 1997 and 2017 based on the idea that his contributions be respected apart from his alleged misconduct.

While expressed differently, one important commonality emerges among various concepts and frameworks: the ability to handle foreign specificities in a cross-cultural setting.

As mentioned at the outset, the basic idea of cultural ability is widely discussed. Thomas and Inkson (2004: 62) refer to it as cultural intelligence: "In its broadest sense, cultural intelligence is the capability to interact effectively with people from different cultural backgrounds". A possible measure of cultural intelligence is cultural quotient ("CQ"), coined following the common psychologists' concept *intelligence quotient* ("IQ") and another *emotional intelligence quotient* ("EQ") (Ibid.: 16). Agreeing on the relevance between cultural intelligence and emotional intelligence, Earley and Mosakowski (2016: 2) argue "A person with high cultural intelligence can somehow tease out of a person's or group's behavior those features that would be true of all people and all groups, those peculiar to this person or this group, and those that are neither universal nor idiosyncratic".

Cultural intelligence may be interpreted as the ability to be bicultural, similar to the notion of a bilingual. LaFromboise, Coleman and Gerton (1993) review past literature and summarize the theoretical ideas on cultural acquisition in five types: the assimilation, acculturation, alternation, multi-cultural, and fusion models. All the models describe "the psychological processes, social experiences, and individual challenges and obstacles of being bicultural" (Ibid.: 395). LaFromboise, Coleman and Gerton (Ibid.) emphasize the alternation model, "which posits that an individual is able to gain competence within two cultures without losing her or her cultural identity or having to choose one culture over the other". Their discussion supports the idea of cultural ability, though they seem to focus on the process of being bicultural.

Vora et al. (2018) write in their recent paper about multiculturalism with the focus on the individual level, summarizing relevant literature works available in the fields of psychology, management, marketing, anthropology, and sociology. Based on their interdisciplinary analysis,

Vora et al. define multiculturalism as "the degree to which someone has knowledge of, identification with, and internalization of more than one societal culture" (2018: 506). Their tridimensional definition is similar to the preceding models in LaFromboise, Coleman, and Gerton's work but is more tailored to international business.

In cultural studies, Trompenaars and Hampden-Turner (2012) provide comprehensive discussions over national culture and useful definitions of the terminology *cultural competence* and related concepts in their book about cross-cultural business management. They (2012: 352) begin with a precaution, introducing varying definitions in circulation: "It could be a motive, a trait, a skill, an aspect of a person's self-image or social role, or a body of knowledge that a person uses". They (Ibid.) also point out the language difference between American and British English: While the terminology *cultural competency* is commonly used to refer to a set of skills or more of "What you know" in American English, *cultural competence*, which denotes behaviors or more of "What you do" is typically used in British English. This article borrows the terminology *cultural competence*, which includes *cultural competency*, as *cultural competence* can be the act of applying *cultural competency* in a real-world setting. This article does not reject other pertinent discussions and definitions of the cultural ability, as they help to understand the concept.

It is important to note that national culture does not always determine how individuals behave, but it is "a very rough indication of tendencies in the rich variety of cultural values" (Williamson, 2002: 1381). In any society, business decisions are made on a case-by-case basis. Some business practices can be culturally driven, but others can be cultureless. Corporate culture can be most influential for decision-making, depending on the setting. Despite the complexity, it is safe to point out the regionally and distinctively shared way of thinking: Some societies are generally more individualistic than others (Triandis, 2001). While each individual has a unique set of personality traits, there are several, not many, nationally shared cultures. The cultural models available at

present can be considered the beginning of a future study, as culture is a construct, for which there is no direct measure (Williamson, 2002: 1380). The grounded elements of the major projects, such as I/C in this article, are considered the best available guidance. The dynamics at the individual level suggest the need for practice-level evidence of an I/C-driven East-West difference[4]. This article focuses on cultural values associated with business practices and uses a case study to depict evidence for research effectiveness. This article refers to regionally shared ways of thinking as *cultural values* that can be classified under the cultural dimensions (or constructs), including I/C, available in the literature (Thomas and Inkson, 2004). It uses *cultureless* to refer to specificities irrelevant to the constructs of national cultures.

This section has examined the concepts available in the literature regarding cultural ability at the individual level. As mentioned earlier, research concerning culture inevitably comes with two problems: the definition and methodological issues. For the definition issue, this article has outlined the boundary of research to mitigate it. To tackle the other issue, the following section will establish a multi-level framework, where cultural competence can be possibly illustrated. For this aim, it will examine empirical studies to understand culturally driven business practices at higher levels than individuals' ways of thinking. A multi-level approach is necessary because the individual level alone is not enough to discuss international business, which includes the firm level, where multinational entities actually carry out business in international settings. The framework will integrate all the concepts with the shared structure of a linear continuum with two extreme ends.

Crafting a model

[4] The terminologies *Eastern* or *East* and *Western* or *West* are used for discussion purposes only, as they can be further subcategorized in many ways. Refer to the J-system (the Japanese corporate system) vs. the W-system (the corporate system found in the West) in Aoki and Dore (1994) for similar use.

Arie de Geus (2002) writes about the useful concept of an entity's persona, originally coined by a famous German psychologist, William Stern, who developed the intelligence quotient (IQ) formula. "To Stern, each living being has an undifferentiated wholeness, with its own character, which he called the *persona*" (Ibid.: 84). To explain the concept, de Geus introduces a vertical ladder that William Stern drew in 1919. The ladder has five levels, namely *Deity/Divinity/Godhead* being on the top row, followed in descending order by *Nation*, *Tribe*, *Family* and *Individual* placed on the lowest row, each of which is "a persona in its own right" (Ibid.: 87). Borrowing Stern's ladder, de Geus illustrates a company (for example Royal Dutch/Shell discussed in his book) using a ladder with seven levels, namely *Society* being on the top, followed in descending order by *Corporation*, *Company*, *Division*, *Work Group*, *Team*, and *Individual*. The idea of a persona corresponds with current concepts in the literature. For example, Williams and Zumbansen (2011) write about "embeddedness" that signifies the connection between the levels of personas in the whole. According to Williams and Zumbansen (2011), institutions and markets are embedded in a society and manifest social values, and that is why those cannot be discussed in isolation from social values, which are expressed as cultural values in this article.

In the case of Japan, the regionally unique practices can be considered its personas. For example, lifetime employment (Ono, 2010), the existence of keiretsu (Ghosn and Riès, 2005), and the main bank ("MB") system (Hirota, 2009) are those at the corporate or society level, perhaps depending on how it is contextualized. Helpful in making an East-West comparison are the cultural constructs of individualism and collectivism, both of which can be placed at the individual level in the ladder of personas. As a breakdown at the country level, "individualism is very high in the United States and generally the English-speaking countries", and "collectivism can be found in parts of Europe (e.g. southern Italy, rural Greece) and much of Africa, Asia, and Latin America" (Triandis, 1994: 41), including Japan as a collectivistic society. Those personas are interconnected to each other in

the respective societies. Miyashita and Russell (1994: 43) offer a good explanation of the connection between the keiretsu system and the main bank system ("MBS"):

> Not surprisingly, a main bank is a financial institution that keeps money flowing to a group of industrial concerns. But if this were all a main bank did, the United States would be chock-full of bank-led keiretsu. A main bank in Japan does much more than simply make loans. It is also the central clearinghouse for information about group companies and the coordinator for group activities. It monitors the performance of its group, holds equity in most of the monitor companies, and provides management assistance when it deems necessary. In the worst case, if one of the group firms is in serious trouble, the main bank is expected to step in with both financial assistance and a whole new management team selected from among the bank's executives.

The central point of their argument can be that, while a MB has various functions, it exists for "a group of industry concerns", in which "a group" in many cases consists of keiretsu affiliates. The argument here is not to claim that a MB exists exclusively for it but that the MB functions takes it into account. The word *keiretsu* often means a series of subcontractors organized under a principal manufacturer (vertical keiretsu), and at other times, refers to a group of large firms in diverse industries (horizontal keiretsu)" (Hoshi, 1994: 287) in Japan ("J-form"). While these are valid descriptions, they do not fully explain the essence of keiretsu. Keiretsu may be a type of strategic alliance, but a strategic alliance in the English sense ("W-form") is "far from being Japanese-style horizontal keiretsu" (Miyashita and Russell, 1994: 208). In a cross-national setting, *keiretsu* can be a hard concept to understand for those who are not familiar with Japanese business. Miyashita and Russell (1994: 7) write "The word *keiretsu* does not translate neatly into English, and that is the beginning of the problem". It is untranslatable because their purposes of existence are not the same. de Geus (2002: 100) argues "There are in fact two different types of commercial companies in existence today, distinguished by their primary reason for being in business". Below is a summary of the two types cited from de Geus (2002: 100-103):

> The first type is run for a purely "economic" purpose: to produce maximum results with minimum resources. This sort of "economic company" is managed primarily for profit…. The economic company is not a work community. It is a corporate machine. Its sole purpose is the production of wealth for a small inner group of managers and investors. It feels no responsibility to the membership as a whole…. The second type of company, by contrast, is organized around the purpose of perpetuating itself as an ongoing community…. Return on investment remains important. But managers regard the optimization of capital as a complement to the optimization of people. The company itself is primarily a community.

This discussion explicates the different purpose of existence for the two forms of alliances. The first type (of economic company, "E-type") and second type ("C-type") represent the W-form and the J-form, respectively (Ibid.). The quote suggests that any C-type company can be a community "with the purpose of perpetuating itself as an ongoing community" ("C-type purpose"). This C-type purpose, however, applies to various industrial groups besides a company (Abegglen, 2006). A keiretsu group, or any continuing or merged corporate group in Japan for that matter, can also be a diffused level of "community", which includes its main bank. This article treats the E-type and the C-type purposes as the two extremes to capture a multi-dimensional spectrum of possible types of personas. de Geus (2002) suggests that E-type represents the firms in highly individualistic societies. However, in this article, it is not intended to assert that all of them, without exception, are equally E-type driven. By the same token, the extreme sense of C-type never represents all the Japanese firms. The actual Japanese patterns are more C-type than the modal E-type. The extremes are to measure corporate variations in the real business world. Similar to the cultural dimensions examined earlier, the persona of business purposes can be seen as a linear continuum with two extremes. The main idea is not to propose one purpose is better than the other but to capture a full spectrum of regional patterns observable in the respective societies. Neither types are inferior to the other.

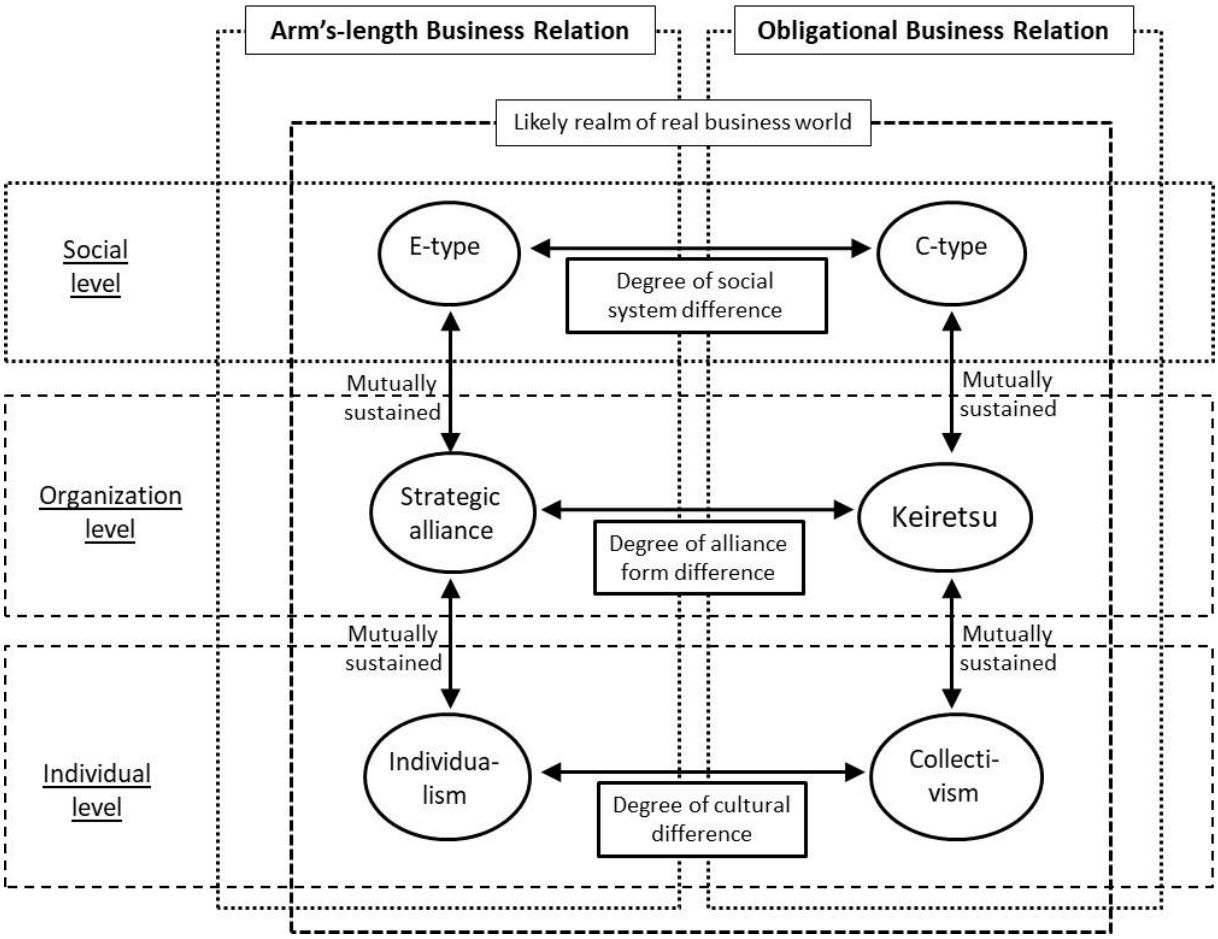
In general, a highly foreign concept can be incomprehensible to anyone with no prior knowledge of it (Beck and Beck, 1994: 25). The C-type community is formed as the result of the business decisions made by all the individuals involved, who have the regionally shared cultural values of collectivism beyond the corporate boundaries. Relatively speaking, C-type community hardly exists in the English speaking countries, where individualistic ways of thinking are generally predominant. This article refers to the unfamiliarity as the lack of mutual knowledge. It is considered immanent in researchers, rather than research subjects. The literature offers helpful explanations to mitigate this problem. Sako (1992: 10) perceives the Japanese cultural value as "goodwill trust" and provides the following:

> What underpins heavy mutual dependence as an acceptable, even preferred, state of affairs is the existence of 'goodwill trust'. 'Goodwill trust' is a sure feeling that trading partners possess a moral commitment to maintaining a trading relationship. It may manifest itself in not taking unfair advantage of one's circumstances (for which shared principles of fairness exist) and in offering preferential treatment or help whenever the need arises.

Goodwill trust is a "sure feeling" because it is a shared way of thinking beyond the corporate boundaries among the Japanese that Sako interviewed for her comparative study between British and Japanese business practices. Goodwill trust exhibits the primacy of collectivistic interest of preserving the C-type community that is, in cultural studies, the cultural value classified under the cultural dimension of collectivism. The discussions suggest the necessity of integrating the individual and the organization levels for meaningful research. Firms have preferred styles of personas at the organization level, but professionals (or individuals) make the decisions that become corporate decisions. Perhaps more precisely, firms are the reflections of individuals' business decisions (Ketkar et al., 2012), some of which are driven by their individual beliefs that

possibly pertain to the cultural values. Combining the concepts reviewed herein, Figure 1[5] illustrates the proposed ABR-OBR model to be tested:

Figure 1. ABR-OBR framework.



This diagram is entitled the ABR-OBR model to distinguish its differences from Sako's ACR-OCR. ABR-OBR assumes the widest theoretical applicability to any trading relations in any industry between Japan and other countries, though this article focuses on the differences between the English-speaking countries and Japan. Based on the literature, this article presupposes that the

[5] All figures are created by the author unless otherwise specified. The extreme levels are omitted for the sake of brevity. Kitamura (2019) offers the comprehensive diagram.

keiretsu groups are organized around the C-type purpose, while Western strategic alliances are not. The pursuit of profit is the shared goal for both types, but their approaches to it are not the same. The model is structured based on the assumption that the three levels are vital for discussion and not too much for a single research project. Any persona may be applied to the model, though this article uses E-type, C-type, strategic alliance, keiretsu, individualism, and collectivism for discussion purposes.

The domain of the Japanese keiretsu business style indicates their relationship-based pattern with the C-type purpose. The distance between the ABR individual and the Japanese business style represents the degree of cultural difference, though it is not drawn in Figure 1. The distance would be relatively wide since the two entities have little or no commonality regarding culturally driven practice. This is why the OBR persona of keiretsu is likely untranslatable into English. This article presupposes that cultural competency reduces the degree of cultural difference ("CD") in the framework as follows:

Degree of cultural competence = degree of CD - reduced degree of CD

The degree of CD represents the generally perceived cultural difference by the majority with no or little cultural competence. The reduced degree of CD denotes the shorter cultural difference by the degree of cultural competence. Similar to bilinguals, culturally competent individuals "fluently" function in foreign business worlds and are capable of handling foreign specificities well, even though the foreign specificities may conflict cultural values of their own. Individuals with a modest level of cultural competence may be at least aware of the foreign business practice tightly linked with foreign cultural values. The varying levels of cultural competence can be illustrated using the ABR-OBR framework of cultural difference. Having established the multi-layered model, the following section will discuss how to test the proposed framework.

Methodology

National culture inevitably comes with the methodological issue because it is a construct at the individual level. It is impossible to measure cultural preferences precisely (House et al., 2004) due to their intangible nature. However, this problem can be mitigated with tangible evidence. This article presupposes that national culture existent at the individual level becomes observable when it is contextualized (Cooke, 2018) with evidence of a culturally driven practice obtained at a higher level. The proposed ABR-OBR model integrates this theoretical connection between the levels. This research adopted the case study method suitable for discovering culturally driven practices and presenting them in the framework. The ontological orientation of the research aim is constructivism, which required a qualitative approach (Bryman, 2004: 20).

Regarding the research subjects, three types of qualitative data are chosen: 1) a monograph written by Nissan CEO Ghosn (Ghosn and Riès, 2005), 2) an empirical book written by a third party (Magee, 2003), and 3) archival data about a face-to-face interview with Mr. Yoshikazu Hanawa, who was Nissan CEO before Ghosn took over the role (Maeya, 2005). Literature generally suggests the four criteria for choosing documentary sources: authenticity, credibility, representativeness, and meaning, all of which are vital for the sources to be genuine, accurate, free from error or distortion, typical of its type, comprehensive, and unambiguous (Bryman, 2004: 381). This research triangulates qualitative data from different sources to meet the methodological prerequisites. Methodologically, this study employs a grounded theory approach (Strauss and Corbin, 1998), triangulating document analysis on empirical materials. This methodology can alternatively be viewed as a qualitative meta-synthesis (Finlayson and Dixon, 2008; Walsh and Downe, 2005), using the original findings supplemented by the literature concepts.

Stewart (1984: 14) warns of the disadvantages of secondary data: “Category definitions, particular measures, or treatment effects may not be the most appropriate for the purpose at hand.” As a result, “not all information obtained from secondary sources is equally reliable or valid” (1984: 23). This research gathered qualitative data from three different sources based on the case theme and triangulated them for mitigating the disadvantages. The following section will present a case study with the case theme of cultural competence.

Case analysis

This section will test the ABR-OBR model by examining how culturally congruent decisions are made at Nissan Motor Co., Ltd. (“Nissan” hereafter to denote their global operations), in particular, Nissan’s Japanese operation (“Nissan JP”) in the OBR society. This short case study is not to discover new findings on Nissan’s revival but to conduct analysis of major business decisions. In other words, it attempts to offer new interpretations of available data. It will only discuss the pertinent topics to the case theme, as Nissan JP’s revival is the result of numerous decisions and actions taken to tackle the complex and eventful challenges, driven by not only cultural values but also business intelligence.

Established in 1933, Nissan JP enjoyed dramatic growth especially in the 1970s but then developed serious problems in the 1990s (Magee, 2003: 5-6). Nissan was “on the brink of bankruptcy” (Ibid.: 7), posting a JPY 680 billion net loss in the fiscal year ending March, 2000 on a consolidated basis. Carlos Ghosn became President and Chief Operating Officer in 2000 and subsequently President and Chief Executive Officer in 2001. After implementing its famous mid-term plan named the Nissan Revival Plan (“NRP”) announced in October, 1999, Nissan recorded a JPY 330 billion net income in the fiscal year ending March, 2001. This brief story sounds miraculous and highlights CEO Ghosn as an eminent leader. It is, however, lesser known that the

Nissan employees created the NRP, not Ghosn, though the NRP would have been impossible without Ghosn. He played a crucial role in the creation of cross-functional teams (CFTs), which were vital for the NRP and in the implementation of the NRP (Maeya, 2005; Magee, 2003). There can be many academic and empirical lessons that one can learn from the cross-cultural case of Nissan's revival.

The literature suggests that the root cause for Nissan's problems was, in simple terms, their "big company disease" including the ineffectual management (Magee, 2003: 6) and the lack of transparency (Ibid.: ix). Their problems appear to consist of culturally driven and cultureless components. The big company disease symptoms can be observed in many countries, but the causes may differ by company or society. Ghosn recalls the diagnostic phase of the NRP (Ghosn and Riès, 2005: 97):

> I (Ghosn) never went to a single place where anyone could speak about the company articulately. No one was able to offer me a summary of problems listed in order of their importance. Management was in complete and obvious chaos. This, I believed, was the primary cause of Nissan's difficulties.

In their book, Ghosn frequently points out his communication problem with the Japanese employees at Nissan JP. They communicated in English, which was not their first language. The language barrier might have made difficulties worse than they were. Nonetheless, there is no doubt that the management had serious difficulties as detailed in his candid comments on them. He classifies the major causes for Nissan's difficulties into five as follows (Ibid.: 98-101):

> First, Nissan wasn't really engaged in the pursuit of profit. Managers were unaware of their own results, knew few figures, and had no precisely quantified goals. They were selling cars without knowing if they were taking losses or making profits….

> Second, there was a lot of talk about the customer at Nissan, but the customers had little presence in the company…. There was no product planning process that included consideration of the customer and the market….
>
> The third factor was a lack of urgency…. No one seemed to feel we had an emergency…. The notion of time did not exist. To my shock, whenever I brought up the question of a deadline, people told me a year for what should have taken a week….
>
> Fourth was the incredible compartmentalization of the company. I wasn't particularly shocked by this - I'd experienced the same phenomenon at Renault. But it was particularly perplexing in Nissan's case, because one of the striking things about Japanese industry is the quality of the teamwork….
>
> Finally - and this was one of the most important factors - the company had no strategy. If you asked people what Nissan would be in five years or ten years, or what the significance of the name Nissan was as far as they were concerned, you discovered a total absence of vision….

All of them can be attributable to the management and possibly supplemented by their corporate culture at that time. As for the fourth factor, Ghosn and Riès (2005: 98-100) add "This compartmentalization inside Nissan was well known to people outside the company". Perhaps Nissan's corporate culture and the OBR cultural values, in particular their interdependency, may have driven the pervasive way of thinking at Nissan JP: I just want to belong to a large company like Nissan. Ghosn and Riès (2005: 115) narrate on the management's problems:

> Lots of people told me (Ghosn), "We (the rank-and-file employees) pointed out this problem five years ago, but we didn't get any response from management, and our ideas never become part of any plan." When a company is without a powerful, shared strategy, then it becomes uncoordinated, it loses its soul, and its people are left on their own.

Ghosn's evaluation indicates that the management was not even interested in the first step for any problem solving: knowing about the problems. The management might have believed that Nissan would overcome the difficulties because it had its large keiretsu network that should generate

necessary earnings at least to stay afloat. Keiretsu is typically culturally driven, as it stems from a relatively high level of interdependency on the collective. As obvious from Nissan's difficulties at that time, it is a misconception that the keiretsu system can resolve any problems. Keiretsu is the OBR preferred style of business. It alone does not generate good results, if the company is not engaged in the pursuit of profit.

An important component of the NRP was cost reduction including the "dismantling" of Nissan's keiretsu network and the sale of unessential assets (Ghosn and Riès, 2005: 108-109). Ghosn appears to exhibit a high level of cultural competence that is probably one central reason for the successful implementation of the NRP. Note that, with regard to the Nissan's keiretsu, while Ghosn and Riès use the word *dismantling*, Nissan did not completely dismantle it but actually reduced it by selling part of their cross-stockholdings. The word hereafter in this case analysis means to reduce, not to eradicate, the network of keiretsu capital relationships. Ghosn and Riès (2005: 109) explain:

> We made it clear from the beginning that we were going to dismantle Nissan's keiretsu. There wasn't any panic. People were reassured when we maintained our client relationships. When we sold off, we did so properly, not haphazardly. We made sure the new shareholders were people who understood the companies we put up for sale, people who would act correctly and fulfil their obligations. We didn't conduct some kind of fire sale.

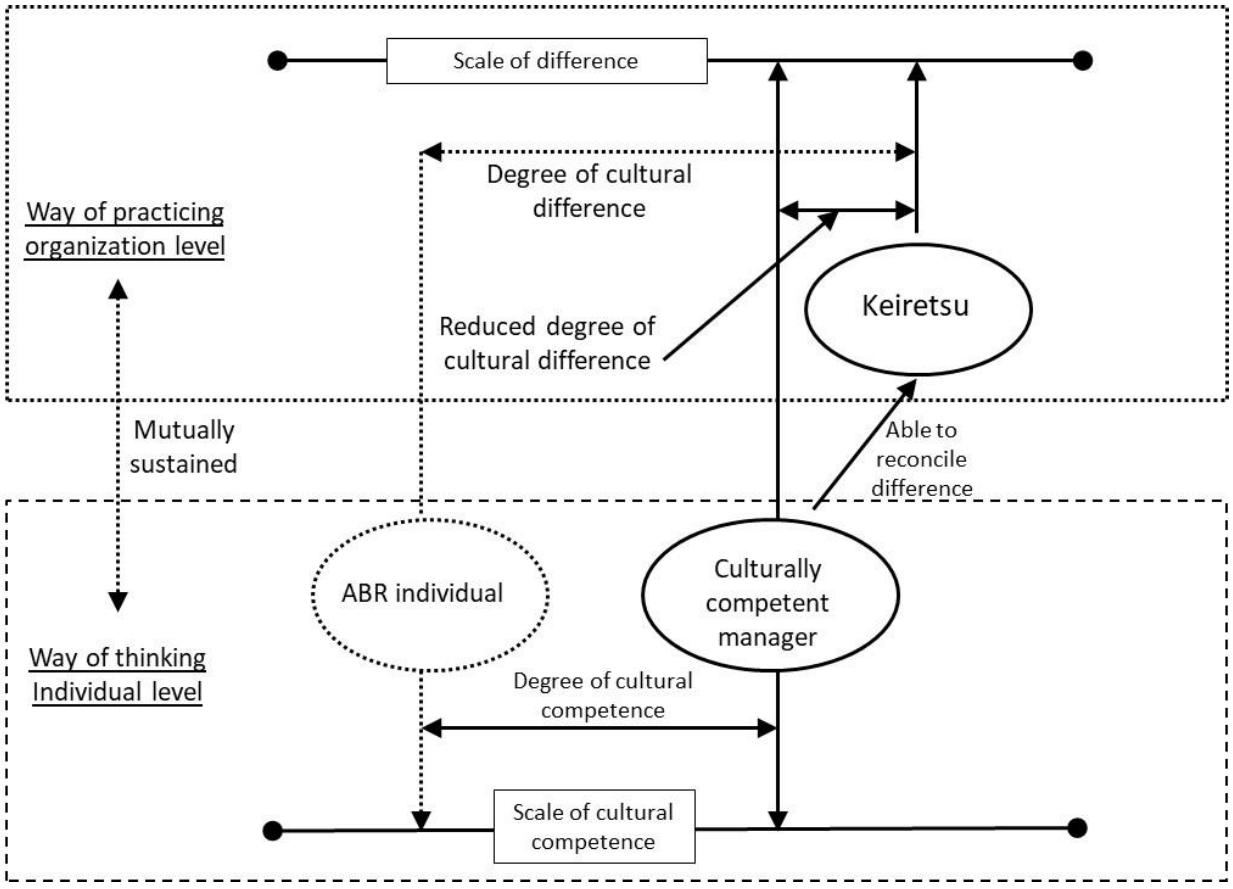
This approach exhibits a high level of cross-cultural competence defined as "the capability to function according to the cultural rules of more than one cultural system" and "the ability to respond in culturally sensitive and appropriate ways according to the cultural demands of a given situation" (Trompenaars and Hampden-Turner, 2012: 355). If the team sent from Renault had forcibly and suddenly eradicated all the keiretsu capital connections, if ever possible, the NRP would have failed, as the positive interdependence between the keiretsu companies complements each other in the whole community. The Japanese keiretsu groups have changed yet exist today, even though the

former zaibatsu groups were dissolved immediately after the end of World War II. The historical events suggest that the Japanese culturally prefer to belong to some form of a collective, or be part of the community (de Geus, 2002), in the sense of being interdependent on it, described as the primacy of collective interest.

In the 2000s, the Japanese banks sold off their cross-holding stocks (Hirota, 2009). While so, the main banks have retained their stocks of the clients, to which the bank is the closest MB, and sold other stocks of less close clients, to which the banks were low-tier MBs, in order to streamline their balance sheets for survival during the economic downturns. Nissan's "dismantle of the keiretsu network" is essentially the same: Nissan has retained the reciprocal capital relationships with the important suppliers, though Nissan indeed sold many of the unessential shares and generated 500 billion yen (Ghosn and Riès, 2005: 110) for their restructuring. The reduction of cross-shareholding has perhaps made Nissan JP less OBR. This change of its management practice can be expressed a shift toward the ABR side on the linear scale between ABR and OBR in the proposed framework.

One important supplier that Nissan did not sell is JATCO, which manufactured transmission systems. JATCO is "regarded as part of the company's strategic assets, not mere suppliers, but storehouses of the expertise and technological knowledge essential to Nissan's future" (Ghosn and Riès, 2005: 112). OBR interdependence is alternatively viewed as a collective manufacturing power, which has been the center of the OBR strength in Japan, Inc. (Abegglen, 2006; Totten, 1998). What strikes here is that Ghosn understood the significance of OBR interdependence and embraced it, retaining the JATCO shares. This is considered cultural competence, which can be illustrated (as culturally competent manager in this specific case) in Figure 2.

Figure 2. Cultural competence illustrated in the framework.



In Figure 2, "culturally competent manager" and "keiretsu" refers to Ghosn and the keiretsu affiliate of JATCO, respectively. Shown for comparison purposes, "ABR individual" stands for an ABR manager with no cultural competence. This premise does not necessarily postulate that this ABR manager is incompetent as a manager. This article presumes that management capability is comprised of various qualities, one of which is cultural competence. In this specific case, the culturally competent manager is able to understand and embrace the significance of keiretsu relation, which is not native to the manager's cultural backgrounds. The highlight of this case is the ability to agree with keeping JATCO, which was proposed internally in Nissan JP at that time. The context suggests that the Nissan employees, including middle managers, asked Ghosn to keep JATCO for his approval. This request was locally apt but generally contradictory to E-type style

management typically taught at business schools in the English-speaking societies. Yet it was agreed.

In terms of the implementation of the NRP, Ghosn explains the success factors (Ghosn and Riès, 2005: 110-111):

> The future success of the plan was in large part due to the fact that it was neither imposed from the "top down" by bosses leading as though by divine right, nor did it bubble up from below in a "bottom up" process, which often results in a lowest common denominator. It resulted, in fact, from a combination of these two approaches…. I never said "This is the way it's going to be!"

This quote explains Ghosn's successful approach: He did not enforce a particular strategy but figured out the culturally apt one acceptable to him and feasible within the OBR cultural limits by knowing about Nissan, minimizing the lack of mutual knowledge between Nissan and him, while stretching Nissan for the better at the same time. Similarly, Magee (2003: 66) observes:

> He (Ghosn) wanted to preserve the best the (Nissan) culture had to offer within the company, unleashing the talent and ideas he knew were there through motivation, cultivation, and confidence. "I was non-Nissan, non-Japanese," Ghosn says. "I knew that if I tried to dictate changes from above, the effort would backfire, undermining morale and productivity. But if I was too passive, the company would simply continue its downward spiral."

This culturally sensible approach exemplifies cultural competence. One possible reason for his cultural competence may stem from his multicultural background: "Born in Brazil into a family of Lebanese origin, educated in some of the best schools in France, Carlos Ghosn is the epitome of cultural diversity" (Ghosn and Riès, 2005: xxi).

Maeya (2005) conducted a face-to-face interview with Mr. Yoshikazu Hanawa, who was Nissan CEO before Ghosn took over the role. Maeya's interview results uncover the central reason why the NRP succeeded and the prior restructuring plans similar to it failed: Unlike all Japanese

executive officers at Nissan, Ghosn was able to break the Japanese code of conduct *shigarami*, which culturally deterred Nissan executive officers from selling keiretsu stocks or ending keiretsu relationships with the suppliers. Most dictionaries offer *restraint, chain, bond* or *fetter* as an English translation of the Japanese word. Any of them can fit depending on the context, but the shared notion in the Nissan context is goodwill trust. Japanese executive officers or managers at Nissan could not break the code of conduct, because they were core employees under lifetime employment and developed their career paths in close contact with the suppliers, sharing good and tough times together for years throughout their professional lives. In the OBR pattern of community, an auto manufacturer and its suppliers are lifetime partners in its extreme. It can be difficult for anyone to end a long-standing relationship with a significant other who laughed and cried together. Nissan, in fact, had restructuring plans similar to the NRP prior to it but none of them was feasible because the implementation was impossible (Maeya, 2005). Ghosn was able to carry out the NRP culturally because he had no *shigarami* with Nissan and its suppliers.

Discussions

The previous section has tested the multi-level framework being capable of illustrating the concept of cultural competence. This section will discuss this article's contribution: conceptual development with the proposed framework built by bridging literature concepts.

As examined earlier, Vora et al. (2018) propose that "individual-level multiculturalism is the degree to which someone has knowledge of, identification with, and internalization of more than one societal culture" and recommend "methods to measure each dimension". Combining this useful idea and this research's findings, cultural competence in this case study may be described as the degree to which the manager, Ghosn, has reasonable knowledge of the keiretsu significance, identification with his cultural backgrounds, and internalization of keiretsu practice. While this

research does not focus on his cultural backgrounds in detail, the ABR-OBR model embraces the three dimensions and advances the concept of cultural competence. This study's findings suggest that the degree of cultural competence may be expressed as how much cultural difference is reduced by cultural competence.

As mentioned earlier, the manager was born in Brazil into a family of Lebanese origin, educated, and employed in France. Literature provides help analyze the degree of cultural competence through the context. French style management is culturally less individualistic than the English-speaking societies (Lubatkin et al., 2005). Lubatkin et al. have compared the American, Swedish, and French principal-agent ("P-A") relations and summarize their findings as follows:

> Whereas the dominant US model of corporate governance assumes norms of self-interest, opportunism, and enforced compliance, and Swedish governance is based on collective responsibility, reciprocity, and voluntary compliance, French corporate governance uniquely combines aspects of both to create a third type P-A relationship. As in Sweden, the primary concern is with the collective good. However, the collective is not the business group, but the grand corps to which one belongs and indirectly, the state itself. (Lubatkin et al., 2005: 883)

Their research suggests that French style governance is similar to Japanese style governance in that the primary concern is with the collective. Although the Japanese keiretsu system consists of collectives of business groups, not the grand corps, the two styles share the same characteristic of being collectivistic. This similarity suggests that, culturally speaking, the manager's background is likely closer to the OBR extreme than "ABR Individual" on the scale of cultural competence in Figure 2. This study's findings and Lubatkin et al. (2005) generally corroborate each other.

This study's findings support the idea that a multi-level framework is effective for analyzing cultural competence. In the Nissan case, another success factor can be found at the organization level: Ghosn and Riès (2005: xxi) talk about "the principles outlined in the Alliance Charter" signed in 1999 between Renault and Nissan: "Recognition of and respect for differences, mutual trust,

open-mindedness, receptiveness." This agreement on the "soft" areas shows a high level of awareness of cultural specificities. They (2005: xxi) write:

> These principles… appear extraordinarily simple and natural, but if you look at a traditional management handbook, you'll see that some of them are missing. It's imperative for each side to preserve its own culture while at the same time making an effort to understand the other's culture and to adopt to it. We've chosen a way based on mutual respect and the acknowledgement of two enterprises and two identities.

This comment exhibits a high level of cultural competence. It highlights the importance of reconciliation of two different cultures and willingness to mitigate the lack of mutual knowledge. It summarizes how to handle two different cultures, keeping the complementarity of the French organization and that of Nissan. Their principles appear to attempt to have an optimal balance between cultural relativism and ethical imperialism to a possible extent in the sense that they respect the idea of cultural relativism - no culture is better than any other - and at the same time, they tap into ethical imperialism for mutually beneficial practices. They avoid coercive measures to violate the partner's cultural specificities yet seek and implement corporate frameworks that culturally work on both parties. Their basic principles appear to spell out important success factors for their alliance.

Cultural competence is ultimately associated with various levels, including individuals, organizations, and social systems, yet few works incorporate the theoretical connections between the levels. For example, in the field of political economy, Hall and Soskice (2001) discuss the typology of capitalism, proposing two types of political economies: liberal market economies ("LMEs") and coordinated market economies ("CMEs"). This useful work discusses how the market economies differ by examining the links between the political economies at the high level and the regional firms at the organization level. Their work elaborates on the social system level in

this study as LME and CME correspond with E-type and C-type, respectively. Hall and Soskice do not discuss why the market economies differ because they do not examine the individual level, to which the why part pertains. At the individual level, professionals make business decisions for their firms that form the aggregate regional economies. Many important decisions are driven by local norms, such as regional and corporate cultures, that make the LME-CME difference as discussed much in cultural studies (Thomas and Peterson, 2017).

To synthesize the Nissan case, it may be instructive to refer to the concept of *gaishi* (non-Japanese companies residing in Japan). Even though located in Japan, gaishi companies are perceived as foreign companies or "outsiders" from the perspective of Japanese society (Yoshimura and Anderson, 1997: 211). Those outsiders distinctively differ from the purely Japanese keiretsu firms. Culturally speaking, such gaishi companies are not entirely OBR but rather ABR entities or can be hybrid. For instance, gaishi companies exhibit much less *shigarami* examined in the previous section (Yoshimura and Anderson, 1997). Perhaps it is improper to perceive the Nissan Group as OBR as it used to be. Nissan's executive board has nine members, four of which, including Ghosn, are non-Japanese[6]. In terms of corporate officers (such as CFO), 22 out of 51 officers are non-Japanese by name. The Nissan group seems to have shifted towards the ABR end in the proposed framework shown in Figure 1 since their management is no longer purely Japanese. Perhaps Nissan can be seen as a fusion of Japanese and non-Japanese, together generating unique synergies, sitting their optimal point on the scale of cultural difference in the framework.

Concluding remarks

[6]Source: Nissan's webpage at http://www.nissan-global.com/EN/COMPANY/PROFILE/EXECUTIVE/index.html (accessed 2 April 2017).

This article has conceptualized the ability of cultural competence illustrated in the simple yet usable model. Cultural competence is not easily measured as it is intangible. It belongs to the individual level (Vora et al., 2018) yet involves higher levels in reality. The proposed framework is structured to capture the dynamics of various cultural differences across the levels. This study has focused on what is left behind in literature by bridging the prevalent concepts. This study's findings suggest that early works and concepts do not necessary mean outdated. Constructive use of valuable concepts may be more meaningful than a critique of how old they are.

The ability of cultural competence can be helpful in balancing cultural differences that can be a major challenge in the globalizing world today. To cope with the challenge, management needs to recognize, respect and reconcile cultural differences (Trompenaars and Hampden-Turner, 2002: 15). The ABR-OBR framework can be used as a supporting tool to recognize differences. Respecting differences, if effective to deal with the challenge, probably starts with anyone in the setting. The effectiveness may depend on the individuals' cultural competence. To reconcile cultural differences, perhaps one needs to know where to locate the cultural specificity: In other words, leaders need to find the optimal point for the cross-cultural setting between the extremes in the framework.

The concept is useful but requires careful handling. Management capability is comprised of various qualities, one of which can be cultural competence. Mr. Hiroto Saikawa, who become Nissan CEO after Ghosn had left, said at a news conference "Ghosn had too much power" (Greimel, 2018). Appropriate use of power or charisma may be considered a type of managerial quality. The reason for Ghosn's departure and his ability of cultural competence need to be researched separately. Each managerial quality requires further research.

Future research areas on the subject include this article's limitations: It has only examined I/C through one case study. Extensive research on distinguishable evidence will strengthen the concept.

The proposed framework is simple yet versatile, designed to have the widest applicability. It can be used not to present the rigid dichotomy but to capture the social realities, in which varying degrees of cultural competence operate in a cross-cultural setting.

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Global Leader Early Life Experiences:
Common Factors among Foreign-Affiliated Company Leaders in Japan

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Common Factors among Foreign-Affiliated Company Leaders in Japan

ABSTRACT

Most of the extant research on leader development has focused on development that takes place in adulthood, primarily through experience gained in the workplace, largely ignoring the development that occurs earlier in life. More recent studies have established leader development as an ongoing process that takes place across the entire lifespan, exploring early life factors such as genetics as well as environmental and contextual influences. The importance of experience in leader development is increasingly recognized. The purpose of this paper is to summarize initial findings from an ongoing study into key common early life and career experiences among Japanese general managers working at foreign-affiliated companies in Japan – defined as Japanese "global leaders" in our research. We conducted semi-structured interviews with nine global leaders, based on a modified framework for lifespan leader development developed by Liu et al. (2020), to explore important formative experiences which took place during Preschool, Childhood, Adolescence, Emerging Adulthood, and Early Adulthood. We derived four hypotheses based on an analysis of our interview data, which have important implications for Japanese youth aspiring to become global leaders in the future, as well as for companies in Japan

seeking to develop and hire global leaders for their businesses.

INTRODUCTION

Given the increasingly competitive and complex world in which they now operate, corporations are investing into assessing, developing, and enhancing the capabilities and capacities of their leaders more than ever (Moldoveanu & Narayandas, 2019), often with the help of external employee training and development firms representing a global industry estimated to be worth more than 370 billion U.S. dollars (Statista, 2019). At a senior executive level, leaders are charged with navigating their organizations through the increasingly VUCA[1] landscape that lies before them – not only in their home countries, but frequently further afield across regional and global markets. To successfully achieve this requires an ever-expansive domain of industry, specialist, and functional knowledge, as well as multi-cultural awareness, leadership effectiveness, and personal efficacy. Various leadership development interventions have been developed and implemented in the workplace aimed at supporting such leaders in acquiring and nurturing these necessary skills and attributes (Oddou & Mendenhall, 2008). However, research supporting the efficacy as well as outcomes of such leadership development interventions is limited (Lacerenza et al., 2017), with the variety of global leadership development programs implemented thus far showing poor results (Mendenhall, et al., 2008). Recent surveys indicate global company CEOs have doubts in general when it comes to the

positive impact such efforts ultimately have on their organizations (Feser et al., 2017).

One factor limiting our understanding of the developmental pathways for successful business leaders is that the vast majority of the extant research focuses on leadership development that occurs later in life, typically in corporate or workplace settings (Liu et at., 2020). These studies neglect to take into account the individual leader development that occurs earlier on – particularly during childhood and adolescence (Murphy, 2011). Indeed, some leadership experts argue that "much of leadership talent is hardwired in people before they reach their early or mid-twenties" (Sorcher & Brant, 2002) – in other words, before they even enter the workplace. In order to design effective and customized programs for developing executives, it can be argued that an understanding of the precursors to the individual's journey to becoming a leader, and the foundational experiences and processes they went through in order to get there, are essential in order to be able to effectively assign and tailor the right programs for the right people. Despite this, there exists a dearth of empirical research into the early life development of business leaders, and the key experiences and mechanisms through which individuals start to accumulate the foundational skills and capabilities necessary for leadership roles later on in life (Murphy & Johnson, 2011).

Research tells us that, while up to one third of the variance in leadership role occupancy can be accounted for by genetics, the far more significant remaining portion can be associated with the development of leader attributes and capabilities influenced by environment, context, critical

experiences, and other life factors (Arvey, Rotundo, Johnson, Zhang, & McGue, 2006; Arvey, Zhang, Avolio, & Krueger, 2007) – a great deal of which takes place during the early stages of life, prior to emergence as a leader in adulthood (Day 2000; Day 2011; Castillo & Trinh, 2018; Day & Dragoni, 2015). This may be because aspects such as behavior, personality, and skills are more malleable – and thereby more readily developed – in childhood and adolescence than later on in life (Arnett, 2000; Murphy & Johnson, 2011). Some of these foundational leadership skills may even be important to develop early on (Avolio & Vogelgesang, 2011; Gardner, 2011), even if the effects may only become observable during adulthood (Bornstein, 1989). Furthermore, it has been suggested that the steps which lead to one's development as a leader are self-reinforcing – in that, as one accumulates leadership experience, one becomes more confident in being a leader and more likely to engage in leadership activities (Hannah, Avolio, Luthans, & Harms, 2008), as well as to be expected to do so by others (Eden, 1993). In other words, the cumulative effect is greater, the earlier leader development begins – as was concluded in a comparative study of leaders and non-leaders by Amit et al. (2009), which found that individuals who emerged as leaders had more leadership experiences in their youth. Collectively, it would be reasonable to suggest that the development of an integrated framework to identify and assess for key experiences, environmental influences, and other contextual early life factors which converge to produce successful leadership outcomes in adulthood, would contribute significantly to the ability of corporations to better understand and support both future as well

as existing leaders in their organizations.

When it comes to Japan, while considerable research has been conducted on Japanese business and management practices, studies on leadership and leader development have remained sparse (Fukushige & Spicer, 2007; Morinaga & Tateno, 2015), with almost no existing research focusing on "global leadership development" within a business context in Japan. This is despite Japan facing a unique and unprecedented need to develop more leaders capable of driving global business expansion in the face of various converging factors, including a rapidly aging society, a shrinking local workforce, a saturated domestic consumer market, and ever-increasing competition from companies overseas (Yonezawa, 2014). Furthermore, the research on leadership in the existing literature has focused exclusively on employees at Japanese companies in Japan or Japanese multinational companies overseas (Bozkurt, 2012), completely neglecting another "pool" of Japanese global business leaders: Japanese executives employed by foreign-affiliated companies in Japan.

Foreign-affiliated Companies in Japan

As of 2018 there were 3,287 foreign-affiliated firms in Japan employing 552,388 regular workers (METI[2], 2019), representing 0.74% of Japan's working age population of 75.072 million (Statistics Bureau of Japan, 2019). Given the necessity for employees of foreign-affiliated companies in Japan to operate as part of a globally-integrated employee network, often

working within Westernized corporate environments and business cultures, these firms typically require a high level of English language ability, as well as a degree of experience of, and familiarity with, global cultures and styles of communication, when recruiting new staff. This is particularly true when it comes to hiring the most senior level leaders at these companies – "Japan General Managers," or "Japan Country Managers." Such leaders are expected to play a pivotal role facilitating communication between the Japan subsidiary and global management, ensuring key stakeholders are aligned on both sides, while also making sure the company's global corporate culture and values are understood, replicated, and instilled within all layers of the local Japan entity. In order to be able to achieve this, these leaders need to be extremely highly skilled in terms of understanding how global organizations function, how to communicate across complex international corporate structures, how global business decisions are made and how to influence such decisions, and how to actively maintain Japan's "seat at the table" as part of a multi-cultural global leadership team.

Arguably, Japan stands to learn a great deal about how globally-capable Japanese leaders are "made" by gaining a deeper understanding of the developmental pathways of top Japanese executives at foreign-affiliated companies in Japan. Furthermore, given the importance of the development that takes place early on in life (as mentioned above), through detailed examination of the early life experiences of these executives, we may be able to shed light on possible approaches that can be taken to encourage the holistic development of more global leaders in

Japan, from an earlier stage in life prior to starting their professional careers. Lastly, there may be important implications for Japanese and foreign-affiliated companies when making key decisions on hiring global Japanese leaders into their organizations.

LITERATURE REVIEW

A review of the existing research into early life stage leader development reveals many studies which contribute to our understanding of the facets of leader development taking place during this time, offering "snapshots" of how such development may start to take shape. Van Linden and Fertman (1998) examined the relationship between leader development during childhood and the family environment, proposing a positive correlation between roles performed in a family context (such as doing chores, looking after younger siblings, or caring for pets) and emergence later on as a leader. Other studies examine relationships between specific childhood attributes and emergence in leadership roles at the same point in time (e.g., Rechia, 2011) or leadership outcomes later on as an adult (Amit, Popper, Gal, Levy, & Lisak, 2009; Keller, 2003; Popper, 2011). Schneider et al. (1999, 2002) examined leadership behavior among adolescents and its relationship with predictive variables including personality, interests, motivation, and academic performance. Another study found correlations between transformational leadership behavior among parents and adolescents in high school sports teams (Zacharatos et al., 2000). Other research correlates certain personality traits such as dominance,

extraversion, and social competence with leadership ratings by teachers or peers (Lease, Musgrove, & Axelrod, 2002; Recchia, 2011; Shin et al., 2004). Further studies focus on early life leader development among high school students (e.g., Schneider et al., 1999; Schneider, Erhart, & Erhart, 2002), university students (e.g., Komives, 2011; Sternberg, 2011), or military cadets (e.g., Bartone, Snook, Forsythe, Lewis, & Bullis, 2007), although not among business professionals.

Another body of research starts to provide us with a broader and longer-term view of how leaders are developed over time from early on in life through to emergence in leadership roles later on in adulthood. The Fullerton Longitudinal Study, an ongoing research program started in 1979, has found that a variety of factors in early life, such as extraversion, academic intrinsic motivation, self-esteem, and positive family environment, are significant predictors of emergence as a leader in adulthood (Gottfried et al., 2011; Guerin et al., 2011; Oliver et al., 2011; Reichard et al., 2011). A further group of researchers has started to explore leadership development "across the lifespan" (Day, 2000; Day et al., 2009; Avolio & Vogelgesang, 2011; Murphy & Johnson, 2011; Liu et al., 2020), significantly contributing to the overall literature by proposing theoretical frameworks for leader development starting from pre-school through to late adulthood (Arnett, 2000; Erikson & Erikson, 1998; Murphy & Johnson, 2011). Given that leader development is a dynamic process that varies across time and context (Castillo & Trinh, 2018; Day & Dragoni, 2015; Oc, 2018), this allows us to start connecting the dots between

some of the interrelated contextual factors, environmental influences, and formative experiences which may be at play during the early life stages of executives prior to embarking on their professional careers, and which may be pivotal to their emergence in leadership roles later on in adulthood.

Murphy & Johnson (2011) constructed a dynamic model of leader development across the lifespan, proposing a theoretical framework that describes the ongoing interaction between early life developmental factors (early influences, parenting styles, and early learning experiences) and the development of leader identity and capacity for self-regulation, while taking into account moderating environmental and contextual considerations (societal expectations, time in history, and age), and the resulting influence on emergence in leadership roles and leadership effectiveness.

Liu et al. (2020) presented a framework (see figure 1) that explores leader development among business leaders during experiential windows at specific stages across the lifespan – from pre-school, childhood, and adolescence through to emerging adulthood, middle adulthood, and late adulthood – positing that development can be influenced by the ongoing dynamic interaction between two systems - the leader's experience processing system, and the leader's self-view system. Leader development overall is moderated by foundational differences between each leader – i.e., genetic predisposition and certain foundational traits. For the purposes of this study, we have adapted Liu et al.'s framework to focus on key experiential windows during the early

life stages of leader development, from Preschool to Early Adulthood (see figure 2).

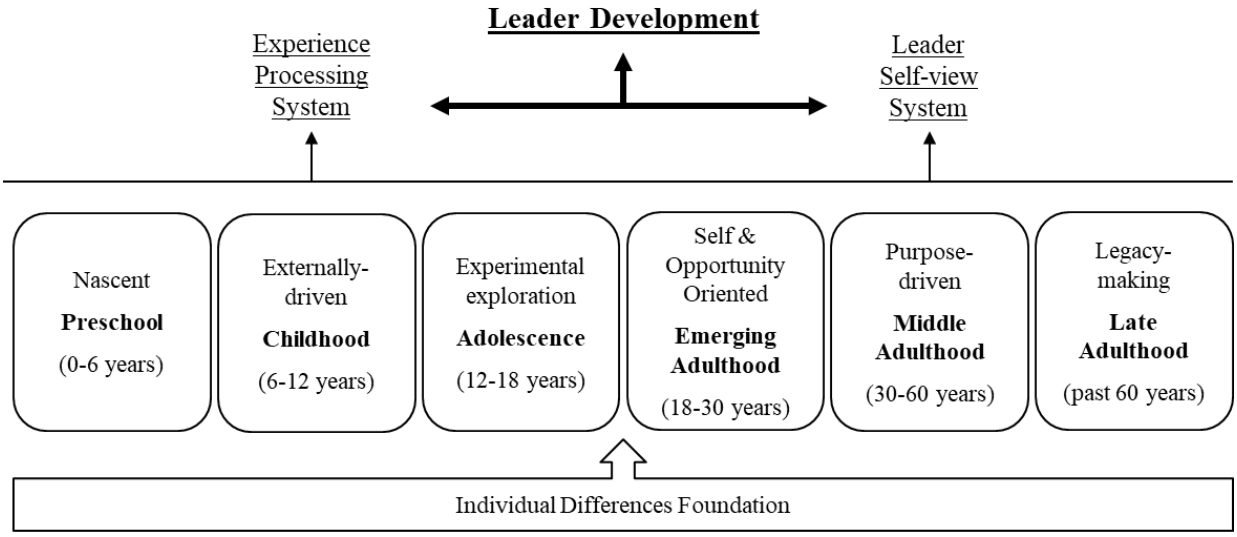

Figure 1. Leader Development through Experimental Windows

Leader Development in Japan

While the success of Japanese companies and management practices became the subject of much research and discussion during the few decades following Japan's emergence as a significant economic power post-World War II, studies on leadership and leadership development in Japan have remained sparse (Fukushige & Spicer, 2007; Morinaga & Tateno, 2015). This is despite Japanese companies focusing increasingly on leadership development for their employees (Herbes & Goydke, 2016; Furuno, 2000).

The majority of extant studies on leadership development in Japan focus on exploring

leadership behaviors and capabilities at Japanese companies. Misumi & Peterson (1985) developed the Performance-Maintenance (P-M) theory of leadership, which proposed two types of leadership behaviors critical to organizational success: performance behaviors (e.g., Planning, identifying reasons for poor performance, and giving direction) and maintenance behaviors (e.g., Trusting subordinates, being mindful of the personal situations of others, and acknowledging good performance). Several leadership invention programs were developed and evaluated based on Misumi's P-M theory, evaluated by Seki et al., 1992. Other studies focus on identifying and categorizing leadership capabilities. Shimizu (1995) proposed entrepreneurship, management, and leadership as key capabilities of top executives at Japanese companies. Niihara (2002) identified seven core capabilities as being critical to success, and Morinaga & Tateno (2015) explored leadership behaviors expected of employees by Japanese companies. Lastly, other studies have focused on the relationship between job experience and leadership skill development among employees at Japanese companies (e.g., Taniguchi, 2006).

Other research examines and discusses Japanese leadership within the context of the global leadership behavioral discourse. Hofstede's much quoted (1980, 2001) research into global leadership indicates that Japan is moderate on power distance and individualism, and high on masculinity and uncertainty avoidance when compared to leadership preferences in other cultures. Yokochi-Bryce (1989), on the other hand, found that Japanese leaders utilize a transformational style of leadership more frequently than transactional or laissez-faire styles.

By contrast, Hayashi (1988) posited that the traditional Japanese leader practices "inconspicuous" leadership as opposed to the classic Western leader who leads "from the front of the orchestra." Ishikawa (2012) found that gatekeeping leadership was effective in enhancing innovative ideas among Japanese R&D teams, whereas transformational leadership had the opposite effect. Fukushige & Spicer (2007) explored the applicability of Bass and Avolio's (1997) full-range global leadership model in Japan, concluding that a new Japanese leadership model based on contemporary Japanese leaders' preferences should be developed. As such, there remains much to be discussed, and little of a conclusive nature in the existing literature, when it comes to the differences, as well as the similarities, between what successful leadership looks like in Japan compared to around the world.

When it comes to global leader (or leadership) development in Japan, the research becomes scarcer still. While several commentators have examined initiatives aimed at internationalizing the Japanese education system in order to produce more future global leaders (e.g., Hashimoto, 2005; Goodman, 2007; Yonezawa 2011; Yonezawa 2014; Kudo & Hashimoto, 2011), very few studies explore how successful global leaders are in fact developed. Graen & Hui (1999) conducted a longitudinal study which concluded that the eventual career progress of Japanese global leaders can be predicted by three behaviors observable during the first three years of their career: 1) Building effective working relationships characterized by trust, respect, and obligation with immediate supervisors; 2) Networking with contacts at prestigious universities; and 3)

Performing beyond expectations in the face of difficult and ambiguous situations. Another study by Hirai & Suzuki (2016) examined core competencies and facilitating developmental factors among eight Japanese individuals with international backgrounds working in various capacities with non-profit, academic, and commercial entities in Japan and the US. The research, based on 90-minute interviews, found that self-management, relationship building, and intercultural competencies, as well as flexibility and resilience, are key to global leader development. While these studies are useful in terms of proposing some potential characteristics of global Japanese leaders, what constitutes a "global leader" is loosely defined, and the pathway to becoming a global leader is left largely up to the imagination.

This present study aims to expand the body of literature for global leader development in Japan, as well as leader development across the lifespan, by examining common early life and early career experiences of nine Japanese General Managers employed by foreign-affiliated companies in Japan.

RESEARCH METHOD

This qualitative study attempts to derive hypotheses with regards to common early life and early career experiences among Japanese global leaders. For the purposes of this research, we define "global leader" as the most senior representative of a foreign-affiliated company or brand in Japan, i.e., Representative Director, Chief Executive Officer, Country Manager, or General

Manager for Japan.

Research interviews were conducted with nine Japanese global leaders. The interviews focused on gaining insights into the early life stages of interviewees, from their preschool years to their mid-thirties, by which point they had completed the foundational period of their professional careers.

In order to design the interview structure for this research, one of the co-authors of this paper, a specialist in leadership assessment, first interviewed the other co-author, who can be categorized as a global leader as defined in this paper, on February 2, 2020. The data from this interview has been included in this research. In terms of gathering additional interview participants for our study, we approached a wide variety of executives from differing professional backgrounds and diverse industries including sports & fitness, consumer packaged goods, retail, luxury, and technology & online, in order to present as wide a representation of our sample target population as possible.

The interview data for this study is currently being expanded to include additional Japanese global leaders. This paper attempts to summarize our initial study findings during this early stage of research.

Analytical Framework: Leader Development through Experiential Windows

We developed an analytical framework for leader development based on experiential

"windows" (stages) during the lifespan ranging from an individual's nascent years through to early adulthood, adapted from research done by Liu, et al. (2020), which is shown in Figure 2. Each stage, characterized by specific critical formative experiences, serves as a window of opportunity for an individual's development as a leader.

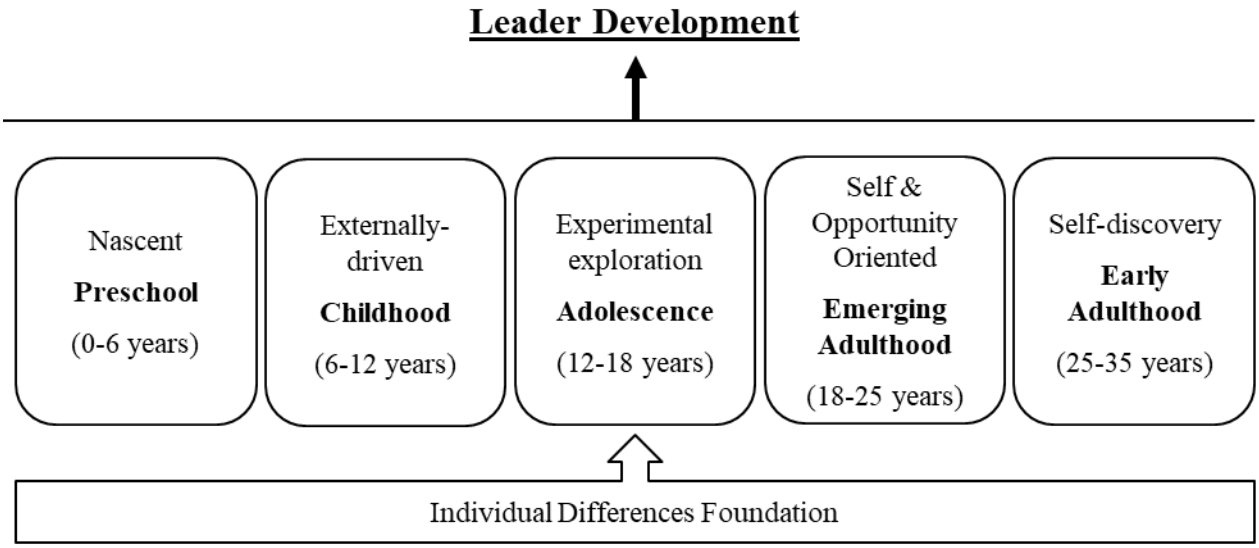

Figure 2. Leader Development through Experiential Windows

The initial stage is defined as "Preschool," which is both the nascent period of life (ages 0-6 years old) and the foundational period for subsequent stages. During this stage, attachment relationships with caregivers (typically parents) are formed (Erikson & Erikson, 1998), and play experiences developed (Brownell & Brown, 1992), both of which have critical influences on future lifelong development as a leader (Mack et al., 2011; Day & Dragoni, 2015). The second

stage is “Childhood” (ages 6-12 years old), during which children enter elementary school and become involved in various social, academic, and sports activities, thereby starting to develop communication, cognitive, and interpersonal abilities (Johnson & Johnson, 1998; Sun et al., 2017) – while still dependent on external influencers such as parents, teachers, and other caregivers to provide them with opportunities to develop their leadership skills. The third stage is “Adolescence” (ages 12-18 years old), an important period of transition through middle school and high school during which individuals develop a sense of who they are and how they view the world (Erikson, 1968; Erikson & Erikson, 1998), exploring and experimenting with their leadership skills both independently as well as with peers and adults. The fourth stage is “Emerging Adulthood” (ages 18-25 years old), during which individuals may experience university and, after graduation, typically begin their professional careers or pursue further education at a postgraduate level. During this period, individuals gain exposure to diverse opportunities for developing their leadership skills (Murphy, 2011), and to engage in various new challenges and experiences which help nurture their sense of self for further growth and achievement (Perreault, Cohen, & Blanchard, 2016). The last stage in the model is “Early Adulthood” (ages 25-35 years old), during which individuals develop their foundational careers. Some may experience major life events such as marriage and parenthood during this period, while being exposed to various new styles of communication, engagement, and leadership in the workplace (Gray & Bishop, 2009).

Big Five Personality Test

As an additional point of reference, we requested each interview participant to take the Big Five Personality Test (John et al. 1991), which breaks down and describes specific personality traits in terms of numerical scores. The individual scores can easily be compared with global sample averages. The five broad personality traits described by the test are: extraversion, agreeableness, openness, conscientiousness, and neuroticism. The test was administered online, and data was collected anonymously.

ANALYSIS AND DISCUSSION

We interviewed the nine global leaders during the period of March 3rd to April 7th, 2020. The average duration of each interview was approximately two hours. The profiles of the nine interviewees are summarized in Table 1.

TABLE 1. Interviewee Profiles

	AGE	CAREER SUMMARY
A	40's	Spent initial 10 years of career in sales roles with a local Japanese company. Then joined a global company, becoming Sales Director for Japan. Moved to another global company as Japan General Manager during early forties.
B	50's	Spent first 20 years of career with a global Japanese company, working in Japan and internationally. Then held senior leadesrhip roles with four global companies with operations in Japan. Became President & Representative Director of a global company in Japan during fifties.
C	40's	Spent first 15 years of career with a global Japanese company, working in international roles. Then moved to a global company in Japan, and was promoted to General Manager during late thirties.
D	50's	Spent first 30 years of career with a global Japanese company, working in Japan and internationally. Was promoted to President of a subsidiary company in Japan when 32 years old, and subsequently held several roles in general manageent in Japan and internationally. Became President & CEO for the Japan subsidiary of a US-based company during fifties.
E	50's	Began career with a local Japanese company. Then held roles of increasing seniority with global companies in Japan for the next 15 years. Became Japan Country Manager for a global company during early forties. After that, became CEO of a local Japanese company.
F	40's	Began career in local politics prior to starting business career in sales for a global company in Japan for 5 years. Held roles of increasing seniority with several other global companies in Japan, before becoming Japan General Manager with a global company during early forties. Subsequently, became Japan Managing Director for another global company with operations in Japan during late forties.
G	40's	Spent first 10 years of career with a local Japanese company. Moved to the Japan subsidiary of a global company and held roles of increasing seniority, before transitioning to the Japan operations of another global company as Country Director during early forties. Subsequently, moved to the Japan subsidiary of another global company as Country Director.
H	50's	Began career working with global companies in Japan, before moving to a local Japanese company. Then joined a global subsidiary of a Japanese company, prior to holding Japan and international Country Manager roles for a global company during thirties. Subsequently, held Japan Country Manager roles for three other global companies.
I	50's	Spent first 5 years of career with a local Japanese company. Then worked internationally and in Japan for four global companies in roles of increasing seniority for the next 20 years, becoming North Asia General Manager for a global company during early forties.

We conducted semi-structured interviews based on each window in the analytical framework as described in Figure 2. Interviewees talked about major life events and related experiences during each stage: Preschool, Childhood, Adolescence, Emerging Adulthood, and Early Adulthood.

While we collated varying and distinctive life stories and sets of experiences from the nine

interviewees, the interview data were generalized, summarized, and categorized as shown in Table 2, in order to identify the experiences common to all participants – experiences which may, potentially, be critical in terms of contributing to their journey of becoming global leaders later on in life.

TABLE 2. Summary of Interviews

	TOPIC	A	B	C	D	E	F	G	H	I	O's
Preschool (0-6 years)	Raised in Japan only during preschool (a)	O	O	X	O	O	O	O	O	O	8
	Spent pre-school overseas	X	X	O	X	X	X	X	X	X	1
	Attended international preschool	X	X	X	X	X	X	X	X	X	0
	Spoke English from childhood out of necessity	X	X	O	X	X	X	X	X	X	1
	Raised in urban areas during childhood	X	X	O	O	X	X	X	X	X	2
	Raised in rural areas during childhood	O	O	X	X	O	O	O	O	O	7
	Exposure to global influences from during pre-school via family/household	O	X	O	X	X	X	O	O	X	4
	Recalls self-driven curiousity about world outside Japan from preschool age	X	O	X	X	X	X	X	O	X	2
	Regular exposure to adults / society from preschool age	O	X	X	X	O	O	X	O	X	4
Childhood (6-12 years)	Attended public elementary school in Japan (b)	O	O	X	O	O	O	O	O	O	8
	Attended private elementary school in Japan	X	X	X	X	X	X	X	X	X	0
	Attended international elementary school in Japan	X	X	X	X	X	X	X	X	X	0
	Attended elementary school overseas	X	X	O	X	X	X	X	X	X	1
	Exposure to/stimulus from global influences during elementary school years	X	O	O	X	O	X	O	O	X	5
	Recalls self-driven curiousity about world outside of Japan from elementary school	X	O	O	X	O	X	O	O	X	5
	Participated in competitive sports during elementary school (c)	O	O	X	O	O	O	O	O	O	8
	Excelled in sports during elementary school	X	X	X	O	X	O	O	O	O	5
	Learned martial arts during elementary school	X	O	X	O	O	X	X	X	O	4
	Experience gaining confidence through sports during elementary school	X	O	X	O	O	O	O	O	O	7
	Leadership or "people coordination" experience at elementary school	O	O	X	O	X	O	O	O	O	7
	Rated as "yutosei" (elite student) with top grades at elementary school	X	X	X	X	X	X	O	O	X	2
	Nominated as "seito kaicho" (year captain) during elementary school	X	X	X	X	X	X	O	X	X	1
	Participated in elementary school clubs / circles	O	X	X	O	X	X	O	X	O	4
	Significant time spent in activities outside/ after school	X	O	O	O	O	O	O	O	X	7
	Regular exposure to adults / society from elementary school age	O	O	X	X	O	O	X	O	X	5
	Wide range of curiosity/interests from elementary school age	X	O	O	O	O	O	O	O	X	7
	Experienced / overcame adversity during elementary school years	O	X	O	X	O	O	X	O	X	5
	Recalls studying very hard at elementary school	X	X	X	X	X	X	O	X	X	1
	Recalls getting mediochre grades at elementary school	O	O	O	O	O	O	X	X	O	7
	Strong pressure from mother/father to perform academically during childhood	O	X	X	X	X	X	X	O	X	2
	Liberal parenting style during elementary school (d)	X	O	O	O	O	O	O	O	O	8
	Developed ambition to become a future leader during elementary school	X	X	X	X	X	X	X	X	X	0
Adolescence (12-18 years)	Spent adolescence in Japan only	X	O	X	O	O	O	X	O	O	6
	Spent adolescence in Japan and overseas	O	X	O	X	X	X	O	X	X	3
	Recalls needing to overcome tough/adverse experiences as a teenager	O	X	O	X	O	O	O	O	O	7
	Describes self as sociable / outgoing during adolescence	X	O	X	O	X	O	O	O	O	6
	Describes self as more focused on own life/activities during adolescence	X	X	O	X	O	X	X	O	X	3
	"Yutosei" (elite student) during middle school	X	X	X	X	X	X	X	X	X	0
	"Yutosei" (elite student) during high school	X	X	X	X	X	X	X	X	X	0
	Played roled as "seito kaicho" (class captain) during middle school	X	X	X	X	X	X	X	X	X	0
	Played roled as "seito kaicho" (class captain) during high school	O	X	X	X	X	X	X	X	X	1
	Actively participated in sports during middle school years (e)	O	O	X	O	O	O	O	O	O	8
	Actively participated in sports during high school years (f)	O	O	X	O	O	O	O	O	O	8
	Actively participated in music activities during middle school years	X	X	O	X	X	X	X	X	X	1
	Actively participated in music activities during high school years	X	X	O	X	X	X	X	X	X	1
	Father was a business leader / executive / company president	O	O	O	X	O	O	O	O	X	7
	Regular exposure to adults / society during adolescense	O	O	O	X	O	O	O	O	X	7
	Recalls vivid experiences of gaining independence during adolescence	X	X	O	O	O	O	O	O	O	7
	Rebellious / non-confirmist at school	X	X	O	O	O	X	X	O	O	5
	Developed ambition to become a future leader during adolescence	X	X	X	X	X	X	X	X	X	0
Emerging Adulthood (18-25 years)	Attended university in Japan (undergrad)	O	O	O	O	O	X	O	X	O	7
	Attended top flight (equiv. Ivy League) university in Japan	O	O	O	O	O	O	O	X	X	7
	Attended university overseas (undergrad)	X	X	X	X	X	X	X	O	X	1
	Learning English out of necessity due to move overseas	O	X	O	X	X	X	O	X	X	3
	Started to learn English seriously from university period onwards only	X	X	X	O	X	O	X	X	O	3
	Actively participated in sports during university years	O	X	X	X	X	X	X	X	X	1
	Actively participated in music activities during university years	X	X	O	X	X	X	X	X	X	1
	Existence of mentor / aspirational type figures while at university	X	X	X	X	O	O	X	O	O	4
	Gained a clear idea of desired career aspirations at university	X	O	X	X	X	O	X	X	X	2
	Developed ambition to become a leader during university	X	O	X	X	X	O	X	X	X	2
	Focused on academic work/activities at university	X	X	X	X	X	X	X	X	X	0
	Gained leadership / "coordination" experience at university	O	O	O	O	X	X	O	X	O	6
	Gained a wide range of experiences in extra-curricular activities (vs. academic) at university (g)	O	O	O	O	O	O	O	O	X	8
	Had gained direct experiences of the world outside Japan by the time of university graduation (h)	O	O	O	X	O	O	O	O	O	8
	Regular exposure to adults / society during university	X	X	O	X	O	O	O	O	X	5
	Spent time traveling outside Japan during university	X	X	X	X	O	O	X	O	O	4
	Life changing experience of self-discovery / development at university (i)	O	O	O	O	O	O	O	O	O	9
Early Adulthood (25-35 years)	Started career at Japanese company in Japan	O	O	O	O	O	X	O	X	O	7
	Started career at foreign capital company in Japan	X	X	X	X	X	O	X	O	X	2
	Gained a wide range of professional experiences during first 10 years of career (j)	X	O	O	O	O	O	O	O	O	8
	Started career doing something very different to what they are doing now (k)	O	O	O	O	O	O	O	O	O	9
	Experienced work overseas during first ten years of career	X	O	O	O	O	X	X	X	O	5
	Collaborated with global colleagues/companies/customers during first 10 years of career (l)	X	O	O	O	O	O	O	O	O	8
	Experienced more than 1 company during first 10 years of career	O	X	X	X	O	O	X	O	O	5
	Attended MBA program as result of own initiative	X	X	O	X	O	X	X	O	O	4
	MBA sponsored by company	X	O	X	O	X	X	O	X	X	3
	Highly active in life outside career / the workplace (hobbies, sports, NGOs etc.)	X	X	O	X	X	X	X	X	X	1
	Experienced overcoming significant failures/challenges/adversity during this period (m)	O	O	O	O	O	O	O	O	O	9
	Talks about importance of setting and achieving goals early on	O	O	O	X	X	O	O	O	O	7
	Developed ambition to become a CEO / GM during first ten years of career	X	O	X	X	X	X	X	X	X	1
	Ambition to become a leader came only following initial 10 years of career (n)	O	X	O	O	O	O	O	O	O	8

In order to achieve a systematic evaluation of the data, as well as to minimize subjective bias in our evaluation, the number of "O"s was merely counted, and items with eight or nine "O"s were selected and highlighted as common experiences (as shown in Table 2).

For the "Preschool" stage, we identified one item, "Raised in Japan only during preschool" (a). For the "Childhood" stage, three items were found in common: "Attended public elementary school in Japan" (b), "Participated in competitive sports during elementary school" (c), and "Liberal parenting style during elementary school" (d). Two items were found in common for the "Adolescent" stage: "Actively participated in sports during middle school years" (e), and "Actively participated in sports during high school years" (f). Common items for the "Emerging Adulthood" stage were identified as: "Gained a wide range of experiences in extra-curricular (vs. academic) activities at university" (g), "Had gained direct experiences of the world outside Japan by the time of university graduation" (h), and "Life changing experience of self-discovery / development at university" (i). There were six items in common for the "Early Adulthood" stage: "Gained a wide range of professional experiences during first 10 years of career" (j), "Started career doing something very different to what they are doing now" (k), "Collaborated with global colleagues/companies/customers during first 10 years of career" (l), "Experienced overcoming significant failures/challenges/adversity during this period" (m), and "Ambition to become a leader came only following initial 10 years of career" (n).

The common experiences as identified above were further generalized and summarized into

four categories: 1) Participated in competitive sports during Childhood and Adolescence; 2) Gained an interest in, or exposure to, the world outside Japan by Emerging Adulthood; 3) Engaged in a wide range of extracurricular activities during Emerging Adulthood; and 4. Gained a wide range of experiences during early career.

Participated in Competitive Sports during Childhood and Adolescence

Eight out of nine samples participated in competitive sports during elementary school (c), middle school (e), and high school (f). The type of sports included both team sports such as softball and volleyball, and individual sports such as swimming and *kendo*. Almost all interviewees explicitly stated that they had gained a sense of self-confidence through their participation in sports. [F] said, "I started swimming at a swimming club early on in elementary school to improve my health, and went on to become one of the top swimmers for the club nationwide. I realized it was possible to achieve something if you try your hardest with a clear goal in front of you, and gained confidence through achieving that goal." [G] played softball during elementary school, and said, "When I moved to the United States, softball helped me to be accepted by new friends locally; it worked as a universal language." [E] started learning martial arts when 12 years old and said, "I could protect myself, and started to grow in confidence as a result. Also, as I was the youngest member of the *dojo*, the older boys took me under their wing, which opened my eyes to new aspects of society from a young age."

[C] was only the exception. [C] did not participate in sports, but played the violin from childhood onwards and stated, “Violin worked as a communication tool that helped me be accepted by new friends,” which is similar to [G]’s experience with softball.

It is noteworthy that the majority of interviewees did not continue to participate in sports beyond their high school years, investing their time into other activities instead from university onwards. Only [A] actively participated in sports (American football) at university.

Gained an Interest in, or Exposure to, the World outside Japan by Emerging Adulthood

Eight out of nine samples had gained direct experience of the world outside Japan by the time of university graduation (h). [C] gained global exposure during Preschool through attending kindergarten overseas. [B], [E], [G] and [H] experienced direct exposure to, or received strong stimulus from, global influences during their elementary school years. [B] recalls becoming curious about the world outside Japan during Childhood, when one of his close friends moved to Los Angeles in the United States. [B]’s family were supportive of his interest and allowed him various experiences such as going on ski trips with US military personnel. [E] stated, “I didn’t like group activities much, so frequently went to the school library to be by myself. I became fascinated with a photography book depicting scenery from around the world, and asked my parents to buy the same book so I could read it at home. At middle school, I studied English very hard, as I saw it as my pathway to being able to experience the world beyond Japan.” [H]

said, "Although I grew up in a typical rural area of Japan, my parents were constantly hosting exchange students in our house, mostly from Australia, so I could practice my English. There were also books on all different subjects from around the world lying about the house. I read them avidly, and became fascinated with other countries from a very young age. As a teenager, as I still couldn't visit those countries physically, I joined an international pen pal association and started writing to people from all around the world instead. Eventually, I had 100 regular pen pals, and became the association's representative for Japan. When I was 15, I made my parents agree to allow me to travel around Europe by myself for 3 months during the summer holidays, which I did again when I was 16. The experience made me more excited about exploring the world, and I eventually decided to apply to university overseas."

Engaged in a Wide Range of Extracurricular Activities during Emerging Adulthood

Eight out of nine samples gained a wide range of experiences through their pursuit of various extracurricular activities during university (g). Our defining criteria for “extracurricular” is activities that are voluntary (i.e., not required for school) and involve some sort of structure (i.e., participation within a system involving constraints, rules, and goals). Both [B] and [D] were top-ranking members of inter-college social networking groups. Both said they greatly enjoyed the experience of building relationships with a diversity of students from different universities. [C] became the top representative of a volunteer group supporting the needs of high school

students in Japan and said, “It was just like running a small company. I enjoyed learning how to empower staff members, doing public relations, and solving financial issues.” Other interviewees spent a significant portion of their university years planning for and going on international backpacking trips [E] and doing a variety of part-time jobs [G].

Many interviewees talked about extra-curricular pursuits during their university years as being life-changing experiences of self-discovery or self-development (i). For example, [E] recounted an experience of becoming ill while backpacking around India and being taken care of by strangers, which “changed my paradigm and made me feel connected to others around the world.” [H] said that, "More than campus life, the most life-changing experiences for me at university were exchange programs I did in France and Spain. I lost sight of the direction I wanted to take halfway through my studies and dropped out for a year to teach English to adults, before deciding to return to take my final year and graduate."

Gained a Wide Range of Experiences during Early Career

Eight out of nine samples gained a wide range of experiences during the first 10 years of their career (j), and interestingly, all nine interviewees began their careers doing something very different to what they are doing now (k). [F]’s career started as a secretary for a politician, dreaming of becoming the mayor of his hometown: “I learned a great deal about human beings in general, and about myself, during that early experience. I eventually needed to give up on my

dream of getting into politics for family reasons, and went into the business world instead. I committed to myself then that I would make every effort possible to become "number one" in anything I tried my hand at." [G] had a clear strategy for gaining a broad range of professional experience from early on, and after graduating from university, decided to join a major Japanese manufacturer well-known for providing a variety of different roles for new graduates. [G] went on to experience sales, licensing, acquisitions, supply, distribution, and a venture start-up project, before being sponsored for an MBA program within the first ten years of joining the company. "Many Japanese companies develop fresh employees by giving them a variety of business experiences early on. My company put me into many different roles, which enabled me to develop my foundational business competencies." Both [E] and [H] worked with three different Japanese and foreign-affiliated companies, in addition to studying for an MBA internationally, during the first decade of their careers. [H] described the accumulation of these various early professional experiences as the "magma" for going on to become a global leader later on.

Other common experiences among interviewees during Early Adulthood are all closely related to this point to a certain degree – i.e., Collaborated with global colleagues/companies/customers during first 10 years (l), and Experienced overcoming significant failures/challenges/adversity during this period (m).

Other Common Experiences

Other items found to be in common among our interview sample include being raised in Japan only during Preschool (a); attending public elementary school in Japan (b); and being raised under a liberal parenting style (d) during Childhood. Additionally, all interviewees said they realized their ambitions to become a leader only after the initial 10 years of their career (n).

Big Five Personality Test

We anonymously collected Big Five Personality Test (BFPT) data from eight out of nine interviewees. Given that personality considerations are outside the direct scope of this particular research, the data was collected as an additional reference point to scan for any identifiable tendencies among the group. A summary of the personality test data is shown in Table 3, which demonstrates some clear tendencies when compared to the average global population scores made public on the online survey website (https://www.truity.com/test/big-five-personality-test).

Table 3. Result of Big Five Personality Test

	Openness	Conscientiousness	Extraversion	Agreeableness	Neuroticism
	69	52	87.5	67	2
	96	71	81	62.5	10
	83	62.5	42	83	37.5
	75	75	48	77	40
	79	94	77	56	19
	67	71	75	71	46
	100	83	37.5	83	0
	65	90	50	62.5	6
Average Group Scores	**79**	**75**	**62**	**70**	**20**
Average Population Scores	**58**	**55**	**51**	**63**	**54**
Difference	**21**	**20**	**11**	**7**	**-34**

Shade: above average population scores

All of our samples showed higher scores in "openness," which describes an individual's tendency to think in complex and abstract ways. Our samples are also more conscientious than average, meaning they tend to be persistent and determined in achieving their goals. It was clear that our samples are less neurotic than average. According to the definition in the BFPT, this indicates high levels of resilience and a tendency to feel difficult feelings such as anger, sadness, anxiety, and self-consciousness less frequently than others. Our samples have mixed scores for Extraversion (i.e., Outgoing, energetic, and friendly by nature) and Agreeableness (highly agreeable people are concerned with getting along with others, while those low in agreeableness are concerned with serving their own interests). Some studies suggest that a high level of Extraversion is an important factor for successful leadership (e.g., Bono & Judge, 2004; Bartone et al., 2009; Caligiuri & Tarique, 2009). However, the data from this initial study is not as conclusive in this respect.

Study Hypotheses

Based on an analysis of our interview data, we derived four hypotheses to our research question: What are the common early life and early career experiences among Japanese global leaders at foreign-affiliated companies?

Hypothesis 1: Participation in competitive sports during Childhood and Adolescence contributes to emergence as a global leader later in life.

Participation in youth sports during Childhood and Adolescence is a meaningful experience that can be associated with emergence in global leadership roles later in life. Most individuals in our sample group who went on to become leaders of global companies in Japan experienced competitive sports during their childhood or adolescent years, and reported they grew in self-confidence and self-belief early on in life as a result of participation in these activities.

This is consistent with findings from previous studies correlating participation in youth sports early on in life with effectiveness in leadership roles as an adult (Atwater et al., 1999). Kniffin, Wansink, and Shimizu (2015) found that individuals who participated in competitive or structured sports during adolescence displayed significantly more leadership skills than did non-athletes. Larson et al. (2006) found that children who participated in youth sports programs showed significantly higher rates of initiative – the ability to be motivated from within to direct attention and effort towards a challenging goal, which is also a core requirement for other

aspects of positive leadership development (Larson, 2000) – in addition to capacity for emotional regulation and positive teamwork experiences. Another study posited that skills developed through youth sports are transferrable to leadership situations later in life including visioning, self-efficacy, focus on winning, competitiveness, task and ego-orientation, and enjoyment of flow experience (Chelladurai & Packianathan, 2012).

Hypothesis 2: Global exposure during early life stages (Preschool through Emerging Adulthood) contributes to emergence as a global leader later in life.

Exposure to the world outside Japan during Childhood or Adolescence can be correlated with decisions to pursue professional opportunities related to global leadership, in addition to the early development of the cross-cultural skills necessary for effectiveness in leadership roles with global companies.

This is consistent with several previous studies. Caligiuri & Tarique (2009) suggest that foundational global leader development may occur through intercultural experiences during childhood or young adulthood, as learning the nuances of behavior expected in other cultures compared to our own help us to understand our own cultural values and assumptions, thereby building the intercultural competencies which are key for success in global leadership activities. Additionally, recent research into Adult Third Culture Kids or "ATCKs" (e.g., Burrus, 2006; Cho, 2009; Lam & Selmer, 2004; Solomon, 1994) – individuals who spend portions of their

formative or developmental years in cultures other than their parents' or the culture of the country of their nationality – suggests that their early life experiences help to foster a global mindset, which is a key precursor to effectiveness as a global leader, from early on (Lam & Selmer, 2004; Cho, 2009), and that ATCKs are motivated to work and lead cross-culturally and in foreign countries (Stokke, 2013). Furthermore, a study by Konyu-Fogel (2011) found a positive correlation between global mindset and leadership in general, concluding that "global mindset improves leadership behavior critical to organizational performance."

Hypothesis 3: Experiencing a wide breadth of extracurricular activities during Emerging Adulthood contributes to emergence as a global leader later in life.

Participation in a wide range of extracurricular activities such as student networking groups, part-time employment, or organized travel experiences etc. during adolescence and university exposed individuals in our sample group to important experiences not available through regular academic curriculums, which they were able to apply to their professional careers later on.

This is consistent with previous research. Murphy (2011) found that such activities enable social learning about leadership among adolescents, and provide scenarios in which they can utilize leadership-related skills in real-world situations and thereby develop their leadership potential. In other studies, participation in extracurricular activities and community youth organizations has been correlated with higher self-esteem, feelings of control over one's life,

lower rates of delinquency, and higher educational aspirations and achievement (Holland & Andre, 1987; Larson, 1994). Additionally, longitudinal data from a sample of 10,000 youths found significant relationships between participation in extracurricular and community activities and positive changes in self-concept, schoolwork, and educational and occupational aspirations (Marsh, 1992).

Hypothesis 4: Exposure to a wide range of experiences during early career (Emerging and Early Adulthood stages) contributes to emergence as a global leader later in life.

Individuals in our interviewee group of global business leaders in Japan developed a significant breadth – or range – of professional experience during the first 10 years of their careers. This is particularly true when compared with the typical full-time salaried employee in Japan – where the country's celebrated lifetime employment system – under which employees join a company and remain with the same company until they retire – "appears to be still well and alive" (Kambayashi & Kato, 2017). In fact, it is worthwhile noting that all of our participants began their career doing something very different to what they are doing now (k).

This is consistent with a body of research suggesting that experiencing a wide range of challenges at work is pivotal to developing leadership skills (e.g. McCall, Lombardo, & Morrison, 1988; McCauley, 2001; Robinson & Wick, 1992), and that the need to deal with the complex, unfamiliar, and unpredictable nature of such challenges (Ohlott, Chrobot-Mason, &

Dalton, 2004) facilitates the development of strategic, cognitive, and behavioral leadership skills (Day et al., 2009; DeRue & Wellman, 2009).

Also noteworthy is recent work by Epstein (2019), who suggests that the most successful professionals who rise to the top of their respective disciplines are not specialists, but generalists who accumulate a wide range of experiences early on, are exposed to multiple domains, have diverse interests, and often find their path later in life. Epstein also suggests that such individuals are more creative, more agile, and able to make connections which their more specialized peers are not able to see.

CONCLUSION

This paper has four major contributions to the existing literature. First, it expands on existing research into Japanese global leaders. There is currently a paucity of studies focusing on leader development among Japanese executives, especially executives at global companies in Japan. This study explores the development of Japanese leaders who are, or have been, employed as the most senior representative of global companies with operations in Japan. Perhaps in light of the challenges of gathering such global leaders for this kind of research, to best of our knowledge, this is the first study of its kind.

Second, we gathered insights and information from our study participants in-person via conducting face-to-face interviews, as opposed to doing so remotely via research surveys.

During the interview sessions, participants recalled and discussed their personal life experiences with emotion and in detail. On account of the interactive interview environment, we were able to probe more deeply into some of the experiences they described, and to encourage them to expand on specific points when talking about other relevant topics. This allowed us to gain a depth of insight which would be challenging to achieve through survey-based research.

Third, the findings from our study may be important points of interest for Japanese youth who aspire to become global leaders in the future. Our interview participants were not "born leaders," nor were they raised in exceptional environments in order to become global leaders. They all made clear choices and decisions during the course of their early life stages, and sought out specific experiences and learning opportunities which may have contributed to their development as global leaders later on. Such choices, decisions, experiences, and opportunities are open to anyone, which implies that all young people in Japan should have the potential to become future global leaders, if they so decide.

Fourth, findings from our study may be helpful for companies in Japan who are looking to hire global leaders for their businesses. "Scanning" for evidence of participation in competitive youth sports (or similar activities), global exposure early in life, participation in extracurricular activities during early adulthood, and gaining a wide range of experience in one's early career during company interview processes, may contribute to more effective hiring decisions when looking for Japanese executives, or potential future managers, who are truly capable of leading

in global environments.

Finally, it is necessary to acknowledge some of the limitations of this study, and to discuss our direction for future research. First, our study has a limited sample size, with only nine interview participants. This reflects the early stage of our research, and as such, this study is a preliminary summary of the initial phase of an ongoing research initiative. We are currently conducting further interviews in order to derive more comprehensive hypotheses. Additionally, the interviews we conducted were retrospective by nature. Discussions were reliant upon participants' subjective recollection of past events, and thereby subject to recall bias. While efforts were made to reduce such bias by adopting a semi-structured interview approach, as well as ensuring our participants were not aware of any study hypotheses being developed, it is not possible to completely eliminate this effect.

For our future research, we will increase our study's sample size in order to derive more robust hypotheses, as well as attempt to probe more deeply into the causal relationships and interplay taking place between common early life and early career experiences, relevant environmental and contextual factors, and emergence as Japanese global leaders.

NOTES

[1] Volatility, Uncertainty, Complexity, and Ambiguity

[2] Ministry of Economy, Trade and Industry

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Dominance and Societal Effects in HR Practice Transfer: The Role of Meso-level Actors in Diffusing and Localizing the Japanese Model in Indonesia

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Dominance and Societal Effects in HR Practice Transfer: The Role of Meso-level Actors in Diffusing and Localizing the Japanese Model in Indonesia

Abstract

This article investigates how meso-level actors (MeLAs) contribute to HR practice transfer, drawing on the System-Society-Dominance-Corporate Effects (SSDC) framework to interpret the role of MeLAs in the transfer of the Japanese management model into the Indonesian automotive industry. We focus on two issues: i) how Japanese MeLAs' training activities in Japan contribute to the understanding and diffusion of the model, and ii) the involvement of both Japanese and Indonesian MeLAs in localizing the model through lobbying and human resource development (HRD) activity in Indonesia. Our research adds to our limited understanding of the significance of MeLAs in processes of diffusion and localization in emerging market economies. Drawing on interviews with 75 key informants in Japan and Indonesia, our research explores the roles of MeLAs from corporate and labour spheres in influencing HR practice transfer processes alongside those of 'independent' MeLAs such as non-governmental and quasi-governmental organizations. The study contributes to international management research and extends the SSDC framework in highlighting MeLAs' influence in both diffusing conceptions of dominant management 'best practice' (dominance effects) and shaping societal effects which inform how the model is localized within the host country.

Keywords: HR practice transfer; emerging market economy; dominance and societal effects; diffusion and localization processes; meso-level actors

Introduction

In this paper, we argue that intermediary organizations such as employer associations, trade union bodies and non-governmental organizations, which we collectively term meso-level actors (MeLAs), affect the transfer of multinational management practices amongst local firms in emerging market economies in a variety of ways that are not yet fully recognized in the literature. We show that MeLAs are influential in the processes of both diffusion and localization, differentiating between types of MeLA and the roles that they play. While there is a considerable body of research addressing the processes of diffusion and negotiation through which both national institutions and local actors engage in the adoption, adaptation or even rejection of foreign management practices within subsidiary operations (e.g. Pudelko and Harzing, 2007; Edwards et al., 2015), the particular significance of meso-institutional factors and actors that have an impact on various aspects of corporate decision making has only recently been the subject of concerted attention (Monaghan et al. 2020; Morris et al., 2018).

Pudelko and Harzing (2007) were amongst the first to identify the need to assess subnational level activity in the cross-border transfer of management practices in order to explore the variation in how meso-level actors influence the impact of transfer processes. Recent research has shown the differentiation in diffusion mechanisms and nature of influence of dominant models on local management practices in specific sectoral or regional contexts that are relevant to understanding a particular field (Morris et al., 2018). However, this level of analysis, and especially the roles of MeLAs in the diffusion of management practices, have not been adequately documented. Therefore, this paper responds to calls from a variety of authors for a closer examination of the full range of sociopolitical economic actors involved in these processes at the subnational level (e.g. Edwards et al., 2015; Doellgast and Marsden, 2019; Tregaskis and Almond,

2019). The following research question is addressed: How do MeLAs contribute to processes of diffusion and localization in the transfer of management practices by dominant MNCs operating in Emerging Market Economies (EME)?

To advance our understanding of MeLAs in HR diffusion and localization processes, this paper presents a study of the transfer of the Japanese management model (so-called 'Japanization') to an EME country, Indonesia. We highlight the various roles and activities of MeLAs engaged in bilateral economic cooperation and directly involved in the MNCs' attempts to introduce human resource management and employment relations (HRM-ER) 'best practice' as they seek to standardize subsidiary practices and to shape local policy changes. Conceptually, our approach draws on the System, Society, Dominance and Corporate Effects (SSDC) model (Delbridge et al., 2011; Smith and Meiksins, 1995), and it builds from work that has applied that model in understanding HR practices at the workplace level (e.g. Almond, 2011; Dobbins and Dundon, 2017; Pudelko and Harzing, 2007). We distinguish between diffusion activity which influences the understanding that local actors have of the dominant management model and how that model is transferred to the host country, and localization activities that are important in how the model is adopted, adapted or rejected in that host country. This theoretical framing provides the basis for a multi-layered analysis of the roles of MeLAs in these processes. Empirically, the transfer of the Japanese model to Indonesia is a case with considerable institutional complexity and dominant-dependent country features: investors' economic power; investors' home state power; a dominant MNC 'model'; host-country FDI dependence, but also political-economy protection of national independence (Caraway and Ford, 2020). Thus, it is a highly suitable setting for observing how dominant practices diffuse in emerging economy workplaces.

Our findings indicate the significant role of MeLAs in (i) *diffusion processes*, particularly through training activities that take place in Japan, in which they shape and inform the understanding Indonesian managers and workers have of the Japanese model and thus influence its dominance effects, and (ii) *localization processes* in which various activities, particularly advocacy through subnational networks and capacity building, deepen Japanese influence within Indonesia and thereby shapes societal effects on practice transfer. This study also demonstrates empirically the significance of the interactions between MNC actors (i.e. corporate stakeholders, management and workers/trade unions) and two different types of MeLA in understanding processes of diffusion and localization. The first type represents those 'corporate' actors *collectively*, and includes business groups, corporate stakeholders, employee and employer associations. The second type is comprised of '*non-corporate'* actors operating at the meso level, typically in our study quasi-governmental and not-for-profit organizations.

This paper makes three contributions. First, as a rare study focused on MeLAs in an EME, it provides new insights into the range of different MeLAs and the various roles that they play in the transfer of management practices. It identifies two types: independent MeLAs and collective corporate MeLAs representing employers or employees and distinguishes between the roles played by home and host country MeLAs. Second, the paper extends the SSDC framework through the detailed examination of the interwoven processes of diffusion and localization, their relationships to societal and dominance effects, and the central roles played by MeLAs in these processes. Third, through reference to the SSDC framework, the paper distinguishes and elaborates the major roles played by different types of MeLAs in processes of diffusion and localization under conditions of institutional complexity of which they are themselves a key part. There are some discernible differences (as well as complementarities) in how the different MeLAs affect both diffusion and

localization. For example, home country MeLAs exercise influence through both dominance and societal effects, whereas host country and independent MeLAs are primarily involved in producing societal effects. Collective corporate MeLAs' advocacy and lobbying activities are influential in shaping the Indonesian context (both national and subnational) thus facilitating transfer in broad terms, while the independent MeLAs' focus on training and development activity which is particularly important in overcoming the lack of human capital investment which otherwise limits practice diffusion in EMEs. In concert, these insights represent a significant advance in the conceptualization of diffusion-localization processes in EMEs, and the attendant roles of MeLAs. Thus, the study expands understanding of how HRM-ER 'best practices' are situated in their political and economic contexts, and the interaction of actors engaged in these HR transfer processes (see Vincent et al., 2020).

The article first reviews the SSDC framework and its value in understanding practice diffusion and localization in EMEs. The empirical setting, methods and data analyses are then explicated. The article presents evidence on the diffusion and localization processes of Japanese management practices transfer in Indonesia, identifying and assessing the significance of MeLAs in these processes. The discussion and conclusions expound the activities of the different types of MeLAs, their influence on identified SSDC effects, and further implications for understanding cross-border practice transfer.

SSDC in the analysis of management practice transfer processes in EMEs

Institutional isomorphic effects in explaining cross-national organization and the transfer of management practices were first theorized by Smith and Meiksins (1995). Their System-Society-Dominance framework identified how particular nations were home to internationally 'dominant'

approaches that diffused through institutional processes of adoption at particular points in history such as the US and Fordism during the early stages of global industrialization. Smith and Meiksins (1995, p. 245) cite Japanese work organization as constituting 'universal rational prescriptions for regulating work' and diffusing through Japanese manufacturers' dominant status during the 1990s. Their System-Society-Dominance approach has informed studies of the transfer of Japanese models to other advanced economies (e.g. Pudelko and Harzing, 2007) and the diffusion of HR practices more widely (e.g. Brewster et al., 2008). In order to understand strategic choice and how corporate influences were experienced at the workplace level, Delbridge et al. (2011) extended the framework to System, Society, Dominance, Corporate effects (SSDC). Subsequent research has considered these effects on corporate Japan and capitalist employment relations under Japanese HRM (Aoki et al., 2014) and their implications for labour-management partnerships under neo-liberal work regimes (Dobbins and Dundon, 2017). More recently, work inspired by SSDC has underscored the importance of the meso-level institutional features operating within societal effects (Morris et al., 2018).

Applying the SSDC Model to the Transfer of the Japanese Model to Indonesia

The SSDC model provides a framing of the mechanisms involved in transferring dominant management practice, nesting societal and organizational level processes within a system-wide conception of capitalism. The current study broadens previous research by considering SSDC effects across macro- (national and international), meso- (subnational) and micro-levels (organizational and workplace) in evaluating processes of practice diffusion and localization. This speaks directly to recent calls for multilevel analyses which situate management practices in their socioeconomic contexts (Vincent el., 2020). Moreover, this is the first study to our knowledge that has centred *specifically* on MeLAs and their contribution to processes of diffusion and localization

in the transfer of a universal model of management practices into an EME. As we will see, a focus on MeLAs offers new insights into these processes, particularly at the subnational level.

Applying the SSDC framework calls for a careful evaluation of institutional contexts. The model first draws attention to the qualities of capitalism as the political-economic *system* within which contemporary business organizations are embedded. There are important features that are inherent to capitalism, but also widely recognized variations at national levels. For example, while Japan is generally considered to be a coordinated market economy, coordination by Indonesia's government and institutions is much lower. Ford (2020) depicts Indonesia as a Hierarchical Market Economy (HME) similar to Latin America's developing economies (Schneider and Soskice, 2009) with a large informal economy and a formal economy dominated by domestic conglomerates. These domestic business conglomerates are active in promoting and protecting national business systems (e.g. Dieleman and Sachs 2008; Ford and Sirait, 2016; Homma, 2020).

The *society* effect operates through the institutions, norms and customs that shape specific national business systems, and East Asian developmental states have been keen on fostering such national specificities (Witt and Redding, 2013). Albeit eroded at the global level through a combination of Japan's economic stagnation and China's rise in influence and economic scale, the *dominance* effect of Japanese practices that was highlighted by Smith and Meiksins (1995) remains particularly relevant in East Asian countries with strong sociopolitical economic relations with Japan. The *corporate* effects resulting from foreign MNC ownership structures and management control are seen in their influence on the local workplaces of subsidiaries (Fainshmidt et al., 2018). The diffusion processes of dominant management practice are informed by power relations between the HQ and subsidiary and, for example, the subsidiary's position within the global supply chain (Bansal et al., 2020). Micropolitical strategies at the organizational level are crucial to

understanding responses to the institutional pressures that both the HQ and the subsidiary experience (Delbridge et al., 2011).

The SSDC framework has been applied to interpret patterns of management practices and evaluate evidence of standardization toward 'global best practices' (e.g. Pudelko and Harzing, 2007) but there have been concerns expressed that the complexities of the processes – and the varying impacts of the different effects – experienced by local actors have been downplayed or ignored (Edwards, et al., 2013). Furthermore, to date, the application of SSDC has also been almost exclusively focused on MNCs and their local networks. Our research addresses both of these issues with its focus on the roles of MeLAs in diffusion and localization processes and an analysis of both the dominance and societal effects produced through these processes.

Setting the scene: Japanese MNCs and MeLAs in Indonesia

Our primary focus in this paper is on Japanese MeLAs that are also influential in Indonesia. Their activities are well-coordinated and resourced, and have been concentrated on promoting economic cooperation through bilateral relations with diverse industrial actors at government and organizational levels. Such an emphasis reflects Japan's integrated approach of advocacy, policy development, industrial and operational strategies: sharing Japanese practices, providing technical and management training, constructing networks and supporting institutional settings that address the lack of human resource development and investment (Teegen et al., 2004; Tregaskis and Almond, 2019). Nevertheless, the challenge of diffusing Japanese HRM 'best practice' and 'harmonious' employment relations has intensified as Indonesia's economy has developed. Japanese MeLAs have increasingly sought procedural influence—rather than direct control—to respond to frequent regulatory changes and to secure the consent and collaboration of local

industrial actors. As examined below, this influence includes coalition building with the key Indonesian MeLAs whose purpose is to promote and protect local labour market institutions and business systems. These institutions include the national chamber of commerce, KADIN, and the employer association APINDO: the only officially recognized employers' organization involved in HRM-ER development and tripartite industrial relations in Indonesia. Table 1 provides an overview of the main MeLAs and their relevant activities.

>>>> Table 1 here <<<<

The main areas of conflict between Japanese MNCs and Indonesian subsidiaries is in approaches to employment relations and skills development. The Japanese management model emphasizes the importance of employee participation, internal skills formation and training systems, and relatively pluralist or 'high-trust' management–labour relations (Endo et al., 2015; Witt, 2018). By contrast, Indonesian managers have traditionally followed a centralized and unitarist approach, including the belief that local employees and unions lack the necessary organizational understanding, commitment and skills to be treated as partners (Caraway and Ford, 2017). 'Japanese' and 'Indonesian' HRM-ER characteristics are summarized at a simplified and generalized level in Table 2.

>>>> Table 2 here <<<<

Research design and context

A case-based approach was adopted to examine the roles of MeLAs in the transfer of the Japanese model. A larger study gathered qualitative data from management, employees and unions within Japanese-Indonesia automotive joint ventures and autoparts manufacturer global supply chains

(Tiers 1, 2 and 3). When the significant roles of Indonesian and Japanese MeLAs became clear, a further phase of work addressed these directly.

Data collection and representation

In total, three phases of data collection were undertaken, starting in November 2014 (based in Karawang International Industrial City, West-Java, and trade union offices in Indonesia) and then in September 2016 (based in Toyota City/Toyota-shi and AOTS Tokyo headquarters in Japan), and ending between March and November 2019 (MeLA organization sites in Tokyo, Japan and Jakarta, Indonesia). An array of data collection methods was employed, but for this paper, 75 interviews with MeLAs comprise the primary data source. Table 3 explains the full dataset and programme. Research was conducted in seven key meso-level MeLAs: AOTS, JICA, JILAF, JJC, Keidanren, APINDO and KADIN (see Table 1). The interviewees from Japanese MeLAs had been directly involved in transferring the Japanese management model (working with Japanese subsidiaries, local firms and local government offices). They were experienced in facilitating training for Japanese expatriates destined for Southeast Asia, as well as Indonesian trainees in Japan. Research participants from the Indonesian MeLAs had experience of training in Japan, local HRM systems, ER policy development and union organizations in the automotive sector. The interviews were conducted in a combination of English and the native language of individual interviewees, specifically, Japanese and Bahasa Indonesian. (NB: The lead author speaks Japanese, Bahasa and English). Interview data were complemented by, and cross-referenced with, secondary data including reports and archive material.

>>>> Table 3 about here <<<<

Data analysis

A three-stage thematic coding analysis was conducted, building from first-order concepts derived directly from the interview transcripts. Through subsequent stages, the analysis was systematically refined to develop a conceptual picture and articulate insights at higher levels of aggregation (see Figure 1). These inductive processes identify three primary areas for consideration: (i) the diffusion of Japanese influence and practices; (ii) the localization of these management practices in Indonesia, and (iii) the context for meso-level actors' activities. Therefore, our presentation of the data proceeds through a detailed consideration of the activities of MeLAs related to diffusion and localization processes in both Japan and Indonesia. The findings are presented in ways that seek to integrate the empirical evidence with the theoretical base (Corley & Gioia, 2011; Welch et al., 2011) though we present a small sample of direct quotations through the paper to exemplify the nature of our data and give voice to key respondents. Further examples of direct quotations that exemplify aspects of diffusion, localization and context are included as Appendix A.

>>>> Figure 1 here <<<<

Research Findings

In this section, we scrutinize MeLA roles in the two key processes identified in the data analysis: *diffusion* and *localization*. Diffusion refers to activities influencing the nature and understanding of the practices constituting the dominant model and how that model is transferred to the host country. Localization involves activities affecting how the Japanese model is adopted, adapted or rejected in the host country. While inter-relationships exist across the effects of the SSDC framework, diffusion activity is primarily associated with shaping dominance effects, and localization activity is mainly influential on societal effects.

>>>> Table 4 here <<<<

The nature and implications of MeLA diffusion activities

Our research identifies a range of activities through which Japanese MeLAs engage with other actors involved in diffusion. These activities centre on the training and acculturation in Japan of host nation managers, employees and trade unionists. AOTS is a prime example of an independent Japanese MeLA whose roles include disseminating and shaping understanding of Japanese best practice. This is undertaken predominantly through training in both management practices and technical issues for overseas management and workers.

Initially established in 1959 by the Ministry of Economy, Trade and Industry (METI) to support the training activities of Japanese firms investing overseas, AOTS Japan has served as the leading meso-level player in the diffusion of Japanese management practices for many years. Of direct relevance to our study is its involvement in management and technical training for Japanese subsidiaries operating in EMEs, including Indonesia. This began in the 1960s when internationalizing Japanese firms did not know 'how to systematically train people who had no knowledge of the Japanese language, culture, customs and so forth' (AOTS Director, 2019). AOTS increases MNCs' capacity to meet the challenges in managing affiliates through its training, particularly the induction of host country employees into the Japanese model and mindset. For example, the Toyota Motor Manufacturing Indonesia (TMMIN) Chief Financial Officer commented on the importance of its engagement in the AOTS' training programme:

> [W]e cooperate with AOTS. We invest in our training fund because we think people development is very important. We secure some funding for specialists, a section head, development training, etc. and dispatch 30-40 young workers annually to Japan. Before departure, trainees receive training in the Japanese language [i.e. terminology related to their jobs] and culture [organization and society]. (TMMIN, 2019).

AOTS' major activities take place in three training centres in Japan. Respondents from the organization emphasized the value of delivering management, organization and leadership training in Japan (AOTS Director and Management, 2019):

> 'because practical experience with the five physical senses in applying theory to practice can be definitely gained through training in "*Genba*" or the actual [work]place, which is highly significant in the way that we develop our personal [Japanization] knowledge and competencies'

As the philosophy of *Genba* underscores capacity building from within, AOTS' approach includes intensive immersion in Japanese organizational culture and societal context. AOTS collects and analyzes the experiences of its trainees in order to improve the training schemes. The findings are then fed back to Japanese enterprises and training partners to keep training relevant. The training sites serve as knowledge hubs in Japan and contribute to the shaping, understanding and diffusion of the Japanese model within the country as well as overseas. AOTS' involvement in diffusion activity requires considerable engagement with other MeLAs within host countries. The training conducted in Japan entails coordination with *independent* MeLAs (e.g. JICA) and *corporate* MeLAs (e.g. Keidanren, JILAF and APINDO) as well as individual Japanese firms. The core of the training focuses on 'the integration of Japanese human resources practice and advanced technologies as a driving force for maintaining higher productivity' (AOTS Director and Management, 2019). This management and technical training encompasses basic aspects of Japanese industrial strategy—that is, aspects related to capacity building and HRD. Conducted at Japanese manufacturing sites in processes similar to on-the-job training, the training is delivered by Japanese *kaizen* experts familiar with what AOTS interviewees referred to as the "art of diffusion". AOTS also collaborates with independent MeLAs, including not-for-profit organizations, such as the Japan Foundation, to provide Japanese language and culture training.

AOTS' dissemination approach promotes the narrative of the Japanese model as universal management practice, that is, a model that advances Japanese industry and has been adopted and adapted globally.

A second key MeLA player in the diffusion process is JILAF which is supported by the Japanese union RENGO and cooperates with government agencies and other labour advocacy organizations, including Friedrich Ebert Stiftung (FES) and International Trade Union Confederation (ITUC), to encourage the proliferation of Japanese 'harmonious' industrial and employment relations practices. Diffusion is achieved mainly through the following training schemes, all of which are held in Japan and involve 120 leaders annually: (i) the Invitation Program for union leaders/stewards to learn about and from the Japanese trade union movement, particularly focused on the benefits of 'stable' industrial relations; (ii) the Field Project on knowledge exchange and dialogue administered by RENGO and individual trade unions, and (iii) HRD training for junior trade union leaders to gain Japanese-style organization and leadership skills (JILAF Report, 2018). It should be noted that Keidanren (the employers' association) is an active participant in these employee relations training initiatives. Provided free, the training is open to any employee associations and overseas unions, including non-federated ones. Moreover, holding the training in Japan enables trainees to have open discussions directly with RENGO, Keidanren and Japanese management representatives.

According to one JILAF representative (2019), cooperation is possible because 'Indonesia law is relatively open to unions to form a confederation, and the laws also allow us to support Indonesian confederated union since 2003.' Under Indonesian regulation, JILAF does not and cannot engage directly in either negotiations or labour disputes. Nonetheless, through its former trainees and affiliate unions, it does have direct communication with Indonesian union

leaders/stewards seeking advice/guidance and influence. The aim of the JILAF-union organization training scheme is to promote the approach of Japanese trade unions in terms of solidarity, advocacy and advancement in a form consistent with, and shaped by, the specific Japanese model of labour-management relations that developed in the post-WWII institutional settlement (Aoki et al., 2014). Thus, while AOTS supports a universal model of management practice, JILAF advocates a Japanese 'one-best-way' for employment relations.

JILAF has authority in designing, delivering and coordinating its training schemes. The Invitation Program and Field Projects exemplify the coordinated and 'harmonious' relationship between industrial relations actors—a relationship explicit in the Japanese model. This was further substantiated by TMMIN, JJC and APINDO representatives. Furthermore, the two schemes underscore how the training content can be adapted to address the specificities of Indonesian settings. For example, the approach extends beyond the 'company unionism' of the Japanese model (Aoki et al., 2014) in including auto part workplaces such as the Denso Japan-Indonesia joint venture (the largest auto part manufacturer in Indonesia with over 5500 employees in three plants in West-Java) that have more than one trade union/employee association with different approaches in representing workers' voice, advocacy strategy and relations with the management. The JILAF training keeps the messages consistent. At the heart of the training on management-labour communication is the emphasis on trainees' participation in conciliation with management and the avoidance of conflict.

JILAF's activities extend beyond influencing diffusion through its training schemes; its advocacy activities play a significant role in shaping the democratic context of employment-industrial relations and influencing actors involved in its enactment. As we report in the following

section, this means JILAF has an impact on the processes of localization and the context of diffusion within Indonesia.

Keidanren is another key Japanese collective corporate MeLA with influence on both diffusion processes and the institutional context of Indonesia within which practice transfer takes place. As Japan's most powerful business group, it negotiates with overseas governments, chambers of commerce and other business associations on a global scale. However, Keidanren's influence is twofold, and it is also significant in shaping policy and conceptions of the Japanese model in Japan. Most notably, Keidanren negotiates/communicates directly with the Japanese government to promote its policy proposals on a range of relevant issues. It has drafted blueprint policy and action plans to support comprehensive and long-term development strategies for Japan at home and abroad. At the corporate level, Keidanren depends on direct links to Japanese headquarters (HQs), management and directors. Its influence on the diffusion of management practices is more extensive and direct in Japan than in individual host countries. As the Keidanren Labour Policy Committee representative notes (2019):

> Keidanren does not have direct support to Asian countries as does NICC (Nikkeiren International Cooperation Center); however, Keidanren has a regional committee with Asian countries to exchange information, support activities, of the counterparts, such as China, Indonesia, Thailand, Vietnam and Myanmar.

As we will discuss below, despite this paucity of direct support, Keidanren does play a major role in influencing localization processes in Indonesia through a variety of means, such as dispatched business ambassadors.

In summation, the activities of Japanese MeLAs have a substantial impact on the dominance effects of the Japanese model through two mechanisms: their influence on key Japanese actors in the shaping of that model and their role in training activities which exert influence on, and build capability in, Indonesian managers, employees and trade unionists involved in adopting or adapting the model in the host country. However, how the Japanese model is actually enacted is subject to societal effects that are also influenced by both Japanese and Indonesian MeLAs. These activities are at the core of 'localization'.

The influence of MeLAs on localization processes and host country context

Localization refers to the processes through which the dominant model of management practices is adopted and adapted in the host country. Our interest here is specifically in the ways in which MeLAs are involved in and influence those processes, influencing the societal effects experienced by local actors, and thus informing the adoption and adaptation of the Japanese model in the Indonesian context.

Japanese MeLAs build coalitions with local government institutions and agencies in seeking to influence national Indonesian business policy and infrastructure. Along with lobbying through these advocacy networks, various HRD activities result in large numbers of alumni trained in the Japanese model who are active throughout the institutions of Indonesia. The influence of Japanese MeLAs in Indonesia is thus both direct and indirect, contributing to the societal effects derived from the local sociopolitical economy and institutional settings that influence adoption, adaptation or rejection of the Japanese model.

MeLAs' localization role is exemplified by JICA. As indicated in Table 1, JICA is an important MeLA in the promotion of economic cooperation (largely financed by Japanese ODA),

especially in both the design and delivery of training (including training local trainers) and in advocating policy development in the ODA recipient country. As the largest Japanese socioeconomic actor engaged in economic cooperation and HRD in Indonesia since WWII, JICA has spearheaded Japan's overseas project there since 1954. Its major engagement is government-to-government (G2G) in HRD projects through partnerships with federal, state and municipal city governments. In disseminating the Japanese model through such training schemes, JICA works with various actors at *macro* (international ODA agencies and national government), *meso* (subnational/regional organizations) and *micro levels* (individual local leaders and bureaucrats). This activity is significant as the collaborations with multiple actors across multiple levels enable JICA to identify challenges, design training appropriate to the local issues, directly communicate and negotiate with governments, and strategically operationalize processes suitable for the local context. One such example of this collaboration is the way JICA's G2G HRD activities in Indonesia are complementary to those of AOTS whose management training is applied at the organizational level. Indeed, our findings indicate that AOTS training in Japan is coordinated with JICA's activities in the host country context. JICA and AOTS deploy different experts (direct control) and JICA targets local government agencies and bureaucrats focused on infrastructure and policy, going beyond the manufacturing-orientated training offered by AOTS. However, AOTS' impact in Indonesia is far greater than that achieved directly through its technical training programmes. Former participants on these programmes constitute a large and influential network advocating the Japanese model.

AOTS invests in alumni associations, constructs alumni networks, and utilizes these networks to refine and disseminate the applicability of Japanese 'best practice'. AOTS' overseas offices focus on trainee recruitment and support for AOTS alumni in diffusing Japanese practice

locally. AOTS is seen by its director as an exemplar of 'how government, business practitioner and private enterprise can partner to effectively diffuse Japanese knowledge, skills and expertise to facilitate the industrialization of developing countries' (AOTS, 2016). AOTS' reach is global and at scale, currently operating in 43 countries with 72 alumni societies engaged in the diffusion network and economic and industrial development of their home countries. According to the 2018 AOTS Report, there have been 136,000 AOTS trainees worldwide.

In Indonesia, many AOTS alumni are now working at senior levels both within their own organizations and also in important governmental, including ministerial positions, and MeLA organizations including involvement as executive board members and committee members of APINDO, BKPN, KADIN and other business associations. Their presence in key positions deepens AOTS' influence on the Indonesian context and informs processes of localization schemes well beyond that exercised through the current trainees themselves. The influence is broader than that felt within individual organizations and workplaces, not the least because the training and dissemination regime embraces governmental activity and Japanese cultural and management practices. While it is difficult to be specific on the precise impact of this wider and diffuse network of influence, AOTS respondents were explicit in recognizing that the strategy of the organization is to 'standardize' and 'rehabilitate' local practices through the localization of the Japanese model.

This network of influence is the outcome of sophisticated long-term planning. AOTS' initial training supports their alumni's ability to succeed in their own organization, whether these are Japanese owned, local independents or governmental. AOTS' records indicate that their alumni go on to secure more senior, better-paid jobs. There is a mutuality between trainees and AOTS and the importance of alumni commitment to the network was emphasized by the AOTS director and management (group interview, 2016):

> …selfless devotion to the creation of an AOTS Alumni Society can be regarded as an extension of the returned-trainees' higher social awareness and responsibility that were nurtured during their training in Japan.

The alumni are expected to take wider societal responsibility and exercise societal influence: 'AOTS Alumni Society rehabilitates their society' (AOTS Management, 2016).

JICA also uses its influence on local governments to promote Japanese interests in the local economy and society more broadly. Most notably, JICA experts are dispatched to BPKM, the Investment Coordinating Board of the Republic of Indonesia, which was established to promote foreign direct investment in Indonesia. For instance, there has been a Japan Desk investment policy advisor at BPKM since 1987. Such influence is deepened and facilitated since Japanese MeLAs such as JICA routinely negotiate on local policies that affect the localization of the Japanese model with local MeLAs and government agencies whose members and directors have gained policy development, management and technical training in Japan. Consequently, they have been influenced by Japanese conceptions of best practices and G2G HRD approaches.

The activity of independent Japanese MeLAs such as JICA and AOTS in shaping the processes of localization and their context is joined by collective corporate MeLAs representing unions and employers, including JILAF and Keidanren respectively. Since 1989, JILAF has been dedicated to promoting a free and democratic labour movement through the establishment of independent trade unions in developing countries. JILAF's strategic mediation approach entails coordinated advocacy targeting national and international labour organizations, training activities for, and with, local unions and the provision of expert advice and guidance to both internationalizing Japanese firms and Indonesian unions. In addition, JILAF shares intelligence with RENGO and Keidanren on overseas trade unions and labour market institutions.

At the national level, JILAF reaches out to international union advocacy organizations, the trade unions of the host country and RENGO in ways that help to shape the host context of operations for Japanese MNCs, particularly in promoting the 'harmonious' employment relations associated with the Japanese model. JILAF also engages with a variety of actors, namely international NGOs, advocacy groups and think tanks (including FES, ITUC and ILO), in promoting a democratic labour movement in Indonesia that is sympathetic to this ER approach. JILAF's HRD activities are generally created and delivered in order to meet demand either from government, such as the Ministry of Labour through grant assistance for Japanese NGOs, or from labour-related organizations, including ILO, ITUC and RENGO. Such activities range from the tailoring of training templates through to the co-creation of a bespoke training programme with the client organization. In broad terms, research participants suggest that

> JILAF training schemes, seminars and advocacy endeavours represent the pillar of Japanese diplomacy, i.e. grooming Japanophile leaders (group interview, JILAF, 2019).

Through these various advocacy and HRD activities, JILAF has an impact on the Indonesian context, in particular by seeking to produce a setting more conducive to the adoption and development of 'harmonious' employment relations.

On the corporate side, Keidanren plays a somewhat similar role in exercising influence on local directors and managers. This includes coaching director and management trainees in implementing Japanese management practice at their organizations. As described by one of the representatives (Keidanren, 2019), this is not merely training in the sense of technical upskilling but an investment in producing a conducive context for the adoption and adaptation of the Japanese model:

> Training local management and director with Japanese personnel management is the best way to support local companies and Japanese affiliates; Keidanren investment interests are in increasing the number of Japanese management supporters.

As with JILAF, Keidanren also exercises significant indirect modes of influence. Much of this activity takes place through the Jakarta Japan Club (JJC) which was formed in 1970 and is the largest foreign business association in Indonesia. Current research identifies that Keidanren mandates JJC to promote Japanese interests, to give a platform to business groups' voices and to communicate directly with the Indonesian government and government agencies. Most notably, Keidanren works closely with JJC in lobbying the Indonesian government and business elites' associations, overseeing and interpreting both the existing and amended laws and regulations affecting FDI, business affairs and labour law. A JETRO Jakarta representative commented explicitly on the role of JJC (2019):

> JJC promotes policy advocacy based on social dialogue and direct communication with the Indonesian government representing Japanese investors and the chamber of commerce. JJC submits policy proposals directly to the central government, e.g. identified issues, engaged and proposed mitigation. JJC established a long-standing relationship with the Indonesian government; JJC has power and resources.

JJC is a Japanese MeLA based in Jakarta. We have also identified two Indonesian collective MeLAs with important roles in localization processes: KADIN and APINDO. KADIN oversees FDI and foreign business practices, promotes business competitiveness and shapes national policy dialogue and development. Its interests lie in advancing the business environment by seeking foreign investors, expertise and technology. At the macro level, Japanese MeLAs establish relations with KADIN with the aim of institutionalizing the adoption of the Japanese model and

human capital investment. KADIN negotiates with its Japanese counterpart and represents the voice of local industrial economy actors.

APINDO, on the other hand, oversees national and organizational HRM-ER policies/practices and communicates directly with the government on policy reform. APINDO's institutional role is to safeguard the impact of foreign influence on ER/IR issues, such as the appropriateness of Japanese ER-IR practices for the Indonesian context. APINDO has strong relations with the government and other stakeholders. Specifically, it has a network in order to navigate local interests and mobilize local industrial actors. At both the national and organizational level, APINDO has direct influence on ER-IR. In fact, it is the only official organization representing the employer and management in tripartite IR disputes in Indonesia.

Overall, there are clear contrasts between the activities and objectives of Japanese and Indonesian MeLAs. Local regulations and constraints on direct influence at organizational and workplace levels mean Japanese MeLAs rely on their networks (advocacy, policy lobbying, training alumni) and coordinated strategies to assist in the diffusion of dominant Japanese practices. The primary interest of *local* MeLAs is to promote and protect local institutions and management practices. Their activity is concentrated on improving business competitiveness and attaining international standards for Indonesia's labour market institutions. Japanese MeLAs are highly active in establishing the Japanese model as the universal best practice to which Indonesia should aspire.

Discussion and conclusion

We have argued that the roles of meso-level actors have been underplayed in understanding how management practices are transferred into host country contexts. The evidence presented here

demonstrates the significance of the roles of both independent and corporate MeLAs in processes of diffusion and localization in 'best practice' transfer. We have applied the SSDC theoretical framing to the interpretation of the roles of MeLAs in an EME context with weak labour market institutions (i.e. Indonesia) for the first time. The findings provide an empirical elaboration of the SSDC framework and highlight the complexity of the inter-relating processes of diffusion and localization, and of the significance of the subnational context (Almond, 2011; Monaghan et al., 2020), the multiple socio-economic actors involved in these processes (Bamber et al., 2021; Vincent et al, 2020).

The findings also allow us to differentiate between MeLA roles and to elaborate their relative significance, both in terms of the different processes and various influences on practice transfer. We have shown that both Japanese and Indonesian MeLAs are instrumental in helping to shape both dominance and society effects. We have thus extended understanding of both dominance and societal effects in the transfer of management practices (Edwards et al., 2015; Pudelko and Tenzer, 2013), elaborated the roles of MeLAs at the micro and macro levels (Ferner et al., 2012) and, in particular, responded to calls for more work that examines the subnational meso level (Morris et al., 2018; Monaghan et al., 2020; Tregaskis and Almond, 2018).

Conceptually, we have extended the value of the SSDC framework in unpacking processes of HR transfer, differentiating in particular between the influence of dominance and societal effects, and helping to frame these within a complex pattern of international, national and subnational inter-relationships between corporate and non-corporate actors in processes of diffusion and localization. The framework facilitates the conceptualization of the importance of networks of relations in the exercise of both dominance and societal effects. Networks of actors are seen to be significant in both Japan and Indonesia, central to processes of both diffusion and localization, and

relevant to both training and development and lobbying activities. Our evidence underlines the importance of multiple effects on workplace organization and practice (Vincent et al., 2020). It also reinforces the recognition that these may stem from both host and home country actors operating at national and subnational levels. In particular, our study sheds new light on the importance of meso-level institutional factors and actors. It is at this level that MeLAs are particularly influential, helping to shape both dominance and societal effects. We thus address directly the importance of the hitherto largely neglected meso level.

Studying the meso level is useful in three major ways. First, a focus on the meso-level in the transfer of practices to an EME context with specific institutional constraints relevant to HRM-ER practice transfer has allowed the identification of the importance influence of different types of MeLAs (corporate and independent) and differentiated between those from home and host country. This has extended and deepened understanding of such intermediaries in the diffusion and localization of management practices. Second, and relatedly, a focus on the subnational level in applying the SSDC framework has highlighted the complex processes through which societal and dominance effects are developed and experienced. Third, the paper illustrates the institutional complexity within which diffusion and localization take place and which the MeLAs themselves play a significant role in maintaining.

Further research should examine how the roles of MeLAs differ in different institutional contexts. Our evidence suggests that different MeLAs influence both diffusion and localization in differing but related ways. The lobbying activities of Japanese collective corporate MeLAs have an impact in both Japan and Indonesia. By contrast, from our findings, it seems that independent MeLAs' are mostly involved with training and development of Indonesian actors, though some of this takes place in Japan. These are both elements of a broad-based and concerted attempt to

influence the Indonesian context of operation of Japanese MNCs and their subsidiaries. Indeed there is perhaps a neo-colonial undertone to some of how Japan's MeLAs reported on their perceived roles in 'rehabilitating' Indonesia. It would be interesting to explore this further, and contrast this with other home and host countries, but this may be particularly important in emerging economies. The evidence certainly supports the value in locating studies of HR practices and their transfer in their wider political and economic contexts (Vincent et al., 2020) and suggests that the meso-level should have a prominent place in such multilevel analyses.

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Table 1: Overview of the Meso-Level Actors, their Diffusion/Localization Roles and Activities

Organization	Overview	Diffusion: main activities	Localization: main activities
Independent Meso-level Actors			
AOTS Japan The Association for Overseas Technical Corporation and Sustainable Partnerships	Established in 1959 to promote sustainable human resources development (HRD) and technical cooperation through training and expert dispatched overseas	Promote and shape understanding of Japanese best practice. *Training network* in Japan: corporations, government agencies and business associations and not-for-profit organizations (e.g. Japan Foundation for Japanese language and culture)	Knowledge dissemination processes in Indonesia: adoption and adaptation inform localization. *Local network:* Japanese and Indonesian MeLAs, AOTS alumni (i.e. mentorship and *localization* at workplaces)
JICA Japan International Corporation Agency	Economic cooperation commences in the 1950s to provide government-to-government (G2G), policy advice, business infrastructure and economic development to ODA recipient countries through training and expert dispatched overseas	JICA Knowledge Co-Creation Program constructed in Japan based on Japanese ODA experiences and case studies, advises Japanese government and disseminates knowledge to Japanese MeLAs	JICA expat dispatch based at the local government agencies, involvement as policy advisor, direct communication, deliver G2G training. *Local network*: Japan Desk: JICA Investment Promotion Policy Advisor Indonesia Investment Coordinating Board (BKPM) operate since 1987
Collective Corporate Meso-level Actors			
JILAF Japan International Labour Foundation	Established by Japanese Trade Union Confederation (RENGO) in 1989 to promote international exchange and cooperation,	Knowledge-based training in Japan to overseas unions or employee associations.	Direct communication and advice to local union leaders and stewards in overseas.

	democratic and independent trade unions	*Training network:* RENGO, ITUC, international advocacy organizations (e.g. ILO, Friedrich-Ebert-Stiftung, Global Union Federations and overseas trade unions	*Advocacy network:* (inter)national advocacy organizations and trade unions
Keidanren Japan Business Federation; Japan Federation for Employers' Association (Nikkeiren)	Established in 1946 (and Nikkeiren in 1948 mainly focused on labour issues) to mobilize Japanese business communities, voices and corporate strategies for developing Japanese economy	Conducts leadership, directorship and management training in Japan for Japanese subsidiaries at director and senior manager levels	Promotes Japanese business interests to Japanese firms and subsidiaries operating overseas *Advocacy network*: *JJC*, Japanese and Indonesia chambers of commerce and business groups political and business leaders
JJC The Jakarta Japan Club	Established in 1970, the largest Japanese business community in Indonesia Serves as a policy advisor, intergovernmental support and business development. Represents Japanese MNCs, SMEs and chamber of commerce operating in Indonesia	Directly communicates with Keidanren and Japanese business groups on local host country business environment and regulations	Acts as Keidanren representative and consolidated voice for Japanese business communities to convey corporate approaches to the Indonesian government. *Advocacy Network*: Japanese expatriates and Indonesian business associations, management and MeLAs: KADIN and APINDO
KADIN The Indonesian Chamber of Commerce and Industry	Established in 1968 to promote business environment trade policies, and HRD	Promotes local business environment, seeks foreign investors and business partner in investing foreign expertise and technology	Advises Japanese corporations on how to operate in Indonesia. Business network: (inter)national government agencies, business associations, private- and state-owned enterprises, entrepreneurs and chambers of commerce
APINDO	Established in 1975 to promote the social welfare of the business	Represents the voice of management, employer	Business network: government agencies, employer associations

The Indonesian Employers' Association	community and participate in integrated communication between the government, employers and workers. APINDO Training Center (ATC) and research institute conducts labour policy development/debate, training, HRM, ER, IR skills and development certification program, and annual national IR convention	associations to overseas business association. Business network: KADIN	and MeLAs, e.g. KADIN, AOTS (including AOTS alumni Indonesia), JETRO and ILO. ATC partnerships with JETRO, think tanks, research institutes and not-for-profit organizations, e.g. JICA

Table 2: Japanese and Indonesian HRM-ER characteristics

	Japanese	Indonesian
Employee participation	High with direct consultation with union	Low, indirect and less support for consultation with union
Industrial relations	High trust, promoting "harmonious" relations and direct communication	Less trust, antagonistic relationships and indirect communication
Knowledge and culture	Organizational learning and team expertise	Organizational learning with selective local expertise
Teamwork rationale	Job rotation, strong joint management and elected leaders	Selective job rotations, less joint management, and non-elected leaders
Functional flexibility and skills formation	High: job rotation and comprehensive job training	Medium: less job rotation and comprehensive job training

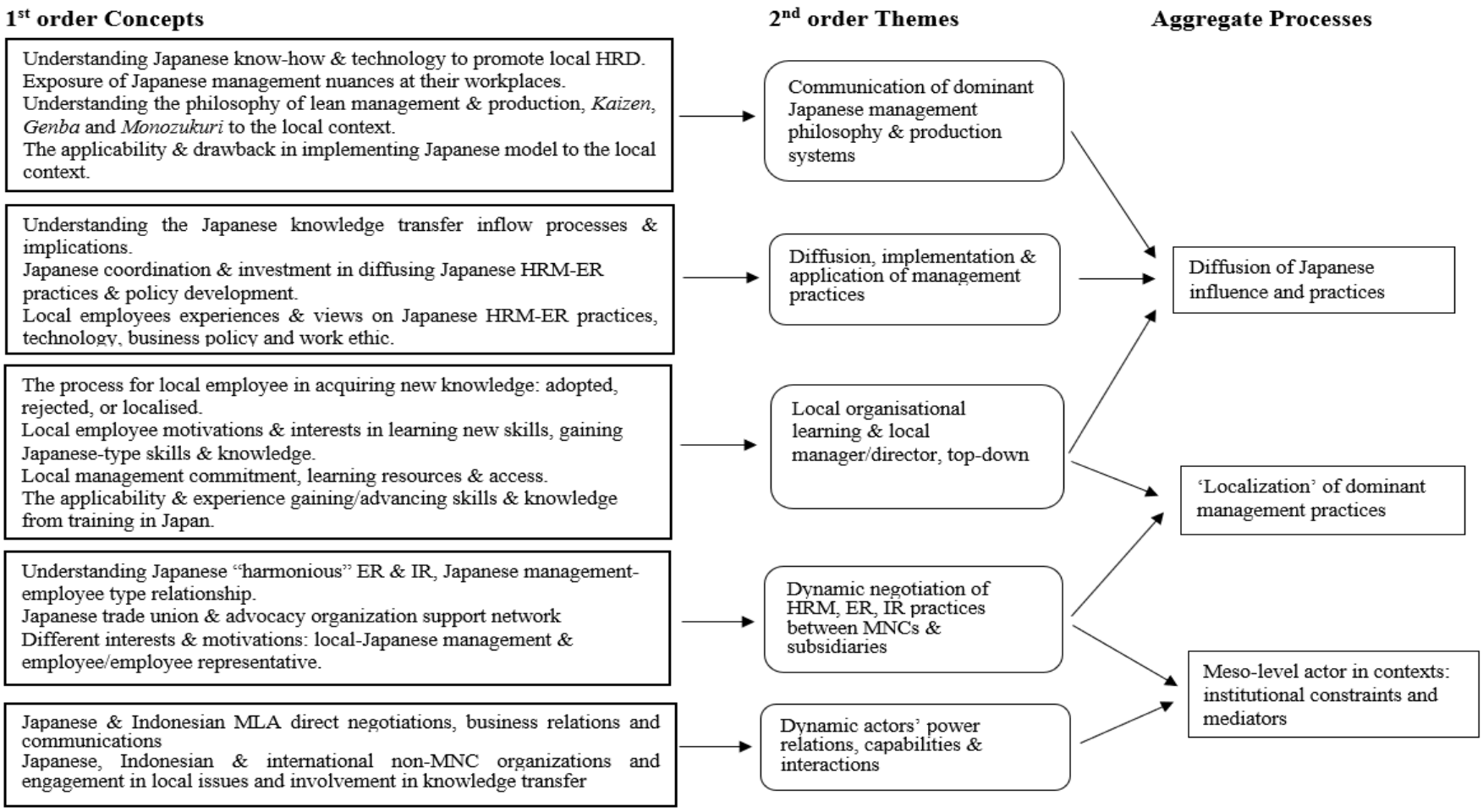
Table 3: Phases of data collection

Phase	**Phase 1**	**Phase 2**	**Phase 3**
Research theme	How do HQ-subsidiary inter-organizational interactions, and forms of direct control, affect subsidiaries' ability and motivation for knowledge inflow?	How do HQs promote their preferred HRM, ER and IR practices?	How are MeLAs and related networks direct/indirectly involved in transfer processes?
Primary data	• Toyota, Honda and seven autoparts companies, AOTS and APINDO • 60 interviews: 10 Astra management; 10 cars (5 management+5 employees); 25 motorcycles (10 management+15 employees); 30 autoparts (8 management+22 employees); 15 business associations and 10 Japanese expatriates. *Total MeLAs interviews: 15* • Focus group interviews with Honda, Aisin and Denso Indonesia • Observations (four to six hours) in all workplaces, ATC, organizations and three union offices in Indonesia	• Toyota and three autoparts AOTS, APINDO and KADIN • 40 interviews: 10 Astra management; 12 cars (5 management+7 employees); 10 autoparts (5 management+5 employees); 10 business associations and 10 Japanese MeLAs. *Total MeLAs interviews: 18* • Focus group interviews with Astra, Honda, Aisin and Denso Indonesia • Observations (four to eight hours) in all workplaces, ATC, organizations and three union offices in Indonesia • Observation in Toyota manufacturing and AOTS Japan (three to seven days)	• Employer associations (Japan and Indonesia), cars (Toyota) and AOTS, JICA, JILAF, APINDO, KADIN, and ILO • *Total MeLAs interviews: 42* 10 AOTS, 6 JILAF, 6 JICA, 3 Keidanren, 2 JJC, 10 APINDO and 5 KADIN • Observation in AOTS, JICA and JILAF Japan (one to seven days) • Participation in five-day 60th AOTS anniversary; discussions with AOTS alumni society members from around the world and AOTS overseas offices

Table 4: Overview of MeLAs' Activities at Different Levels

Organization		The main focus of activities	Key actors and relationships				
			Macro level		Meso level	Micro level	
			Cross-national	National		Corporate	Individual
Independent MeLAs	AOTS	Management and technical training	AOTS overseas offices, chambers of commerce and government	Government agencies and institutions	JICA, APINDO, JJC and not-for-profit organization, including various training institutes	Both Japanese subsidiaries and local SMEs	AOTS alumni societies, i.e, directors, management, entrepreneurs and philanthropists
	JICA	Policy development and business infrastructure	International organizations and ODA agencies	Governments	AOTS, think tanks, NGOs, and government agencies	Japanese MNCs and subsidiaries	Bureaucrats and policymakers
Collective corporate MeLAs	JILAF	Democratic and 'Harmonious' ER-IR	ITUC, global union federations and international employers' and workers' networks	RENGO	ILO and not-for-profit advocacy organizations (e.g. FES)	Trade unions, Japanese subsidiaries, local firms and Keidanren	Union leaders and stewards
	Keidanren	Trade and investment policies and business practices	Foreign governments, chambers of commerce, and business groups	Japanese government agencies and business associations	AOTS, JETRO and JJC	Japanese subsidiaries	Director and management
	APINDO	HRM, IR-ER training and policy development	Chambers of commerce, and employer associations	Government agencies, ministries and business associations (KADIN)	AOTS, JJC, ILO and JETRO	Locally owned firms and Japanese subsidiaries	HR-IR Directors and management

Figure 1: Data Analysis



Appendix

Table 5: Indicative Quotations

Diffusion	I think the Toyota Production System (TPS) is one of the significant elements composing the Japanese Management System. AOTS and AOTS Alumni Societies have focused on **diffusing** the Japanese Management System in developing and emerging countries. (AOTS group interview with directors and managers) I have received training at AOTS several times. Since my field is HR, my training focuses on how to build vocational educational, technical training and research institutions. The training I received is on the **capacity building** in managing and training trainees **based on Japanese management systems,** namely monozukuri, kaizen philosophy and 5S. (AOTS Indonesian trainee)
Localization	AOTS has partnership **localization** strategies in general, including Japanese government, local governments, government-related organizations, industry, industrial parks, business groups, financial institutions (e.g. Asia Development Bank, ADB), and cooperations; the Japanese counterparts in Indonesia: Embassy of Japan, JETRO Jakarta, JJC (Jakarta Japan Club), JICA, APINDO and KADIN. (AOTS group interview with directors and managers) It starts with a **bilateral governmental dialogue**. Our [local] counterparts are governmental agencies and quasi-government corporations of the other country. For instance, METI sends the AOTS their proposals of seminars and training programmes. After careful studies and negotiations with METI, [AOTS] Tokyo sends the final order to [AOTS] Jakarta Office for recruitment, preparation and management. The Jakarta office then coordinates with the local counterparts and AOTS Alumni involvement in working things out. (AOTS R&D Director) Japanese ODA has played important roles to improve the business environment, infrastructure and technical training [in Indonesia]. However, it needs building and deepening, **localizing the Toyota Management Way extends to autoparts supply chains**, *not just* Tiers 1 and 2: but also Tiers 3 and 4. (TMMIN board member) In Indonesia, I think JICA has a **long term cooperation** with the Indonesian government. We advise them on the situation, i.e. Japanese experience, we share with the Indonesian people the industry development, in a way to communicate with the local people. (JICA director, head of HRD and operation manager group interview, Tokyo) The main strategy of JICA is **capacity building, capacity development** for the Indonesian government, serving government clients/offices, e.g. BKPM. The capacity building is necessary, and it is based on real concern, real needs of Japanese investors. (JICA Japan Desk representative at BPKM, Indonesia Investment Coordinating Board)

Context	Astra Automotive Group has **rejected** certain Japanese HRM 'best practices', such as seniority promotion and lifetime employment, as well as **accepted** it, e.g. lifelong learning and continuous improvement. This is because Indonesia business infrastructure and human capital are not yet ready; the condition of our socioeconomic system is very much different than that of Japan. (Member of Astra-Toyota HR-ER board of directors) The labour issue that is of significance in the case of Indonesia is aggressive worker demonstration, strikes and occupied factory; this is the primary concerns of Japanese stakeholders. JICA **cannot oversee** this particular issue. We understand our limitations, JICA's role is to navigate this issue, participate in **economic cooperation**, make recommendations to Japanese firms and offer policy advice to local government agencies. (Two JICA management representatives, Tokyo) **Localizing** Toyota's two-way management-labour communication **can be risky** we are well-aware with the on-going industrial disputes and increasing management-union tensions. In all three TMMIN plants, Toyota **localization has shown tremendous impact**, it is an example. However, we are challenged by our suppliers [three autoparts makers]. We cooperate with Astra [automotive management group] to conduct HRM, ER and IR audit…that's all we can do really. (TMMIN HR-ER director)

Intelligent Governance of Alumni Engagement Program Based on Business/IT Alignment: Directions for Japanese Universities

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Intelligent Governance of Alumni Engagement Program Based on Business/IT Alignment: Directions for Japanese Universities

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ABSTRACT

Universities worldwide are investing heavily to forge a stronger bond with a main financial supporter: their Alumni. Alumni interconnection with their alma mater has been considered to be a very challenging, turbulent relationship that consumes money, time, and other resources. Despite universities' ongoing efforts to yield the maximum return on their investment on this relationship, they are falling short of accomplishing their stated goals. This was especially true in Japan immediately after the privatization of national universities, but there is little current information about progress. Nowadays, universities are developing comprehensive strategic and innovative programs to trace and attract former students and then foster university/alumni lifelong relation. These strategies focus on the students (future alumni) engagement and support throughout their academic lifecycle; technology divergence and governance; inter-departments communication and collaboration; shared benefits; and external and internal environmental challenges and opportunities. In this research, a comprehensive literature review was conducted to form an understanding about universities alumni engagement programs. We were able to grasp the knowledge about universities strategies, sought-for benefits, and challenges in carrying out these programs. The advancement of technology and the expansion of internet use have introduced a wide array of benefits for developing innovative engagement programs, yet it brings new challenges and hardness. Security issues have been identified as the most challenging task while data mining has been recognized as a powerful tool that can brings tremendous benefits to the alumni engagement programs. The status of Japanese Universities alumni engagement programs current around 2013 has been presented. A conceptual framework that focuses on business/IT has been developed to enhance the efficiency of alumni engagement system.

Keywords: Alumni, Alumni Engagement, Data Mining, Alumni Data Governance, Alumni System, Japanese Universities Alumni Engagement Programs

INTRODUCTION

Funding, decline birth rates, intensified global competition, and policies issues are pressing environmental issues that threaten the existence of Japanese universities. University ability to react and adapt to the changing and competing environment is the key for their survival. Japanese universities like universities all over the world, have recognized the strategic role of alumni to overcome the environmental challenges and improve its status. Universities should put in place a comprehensive system that enables them to forge a lifelong relation with their alumni. This system includes strategies, resources, and technologies. Unfortunately, the role of technology in enhancing the efficiency and effectiveness of alumni engagement at Japanese universities seems to be limited to the series of studies by Okawa et al., (2015).

Universities rely heavily on governmental subsidies, student tuition, and donations to fund their operations. Nowadays, the higher education sector is described as a turbulent sector due to the severe competition in the marketplace coupled with dwindling governmental financial support. To overcome the difficult environment, universities started to strategically think about more innovative ways to increase their financial income through investing in alumni engagement and participation programs (Smith, Gearhart, & Miller, 2019; Mazambani, Reysen, Gibson, & Hendricks, 2017; Teixeira & Maccari, 2014). Alumni engagement programs includes a mix of strategies that utilize different communication channels such as social activities and events, social media, trips, magazines, and newsletters to expand their access to all alumni (Smith, Gearhart, & Miller, 2019; Teixeira & Maccari, 2014).

Constructing a life-long relationship between alumni and their alma matter has been considered to be a challenging task because of the volatile nature of the alumni network and the university short-sighted vision that focused mainly on university gains. Alumni could support university in its efforts to achieve the mission by partaken as advisors, advocates, and strategic allies. Despite alumni's vested interest in preserving and enhancing the esteem of their qualification, research shows that more than 80% of alumni do not actively engage with their alma mater (Jepps, Gregory, & Cresswell, 2019).

It is important to comprehend that engaging alumni can be traced back to the early stages of student lifecycle. Students are future alumni and molding an emotional attachment between university academic and administration staff, and alumni during their studies is a key success factor. "Leaving alumni community building until after graduation is likely to be a case of too little too late" (Jepps, Gregory, & Cresswell, 2019). Students' attachment to their universities develops slowly over time, however, this attachment once solidified it can last forever. Providing students with a good university experience through the academic journey is the catalyst for a successful engagement plan (Lohens & Nekvasil, 2016).

The novel coronavirus affects all aspects of higher education, and it is of special concern in alumni relations. The shift to the online platform affects the university's ability to foster a personal connection between the university and its students. The quality of the technologies used can positively or negatively impact the student experience. Student success plays a role in how alumni view their university experience. Thoughtful strategies must be developed to consider the complete sudden shift to online teaching and learning.

This paper organized as follows, first section presents the characteristics of active alumni. Second section discuss the benefits of building an active relationship between alumni and their alma mater to both constituents, the university, and its alumni. The third section discuss the challenges facing universities in establishing a life-long attachment with their alumni. The fourth section explain the strategies adopted by universities to develop alumni engagement programs. Section five discuss the technical functionalities of Alumni Information Systems (AIS) while section six discusses the challenges encountering these systems. Section seven shows the Japanese universities endeavors to enhance alumni engagement and the challenges facing their attempts. Section eight shows an example of alumni services provided by one of the prestigious

Japanese universities, The University of Tsukuba. The last section presents a conceptual model for effective governance of alumni system.

RESEARCH METHODOLOGY

This research aims to explore the collective impact of information technology and business strategies on the effectiveness of alumni engagement programs. The previous research in the field of alumni engagement programs concentrated on discussing the characteristics of active alumni and the strategies adopted by universities to forge stronger ties with their alumni. With regards to technical aspects of alumni engagement programs, studies are scarce and mostly present case studies that investigate the impact of introducing new alumni engagement system to an educational environment. Given the novelty of the subject, we followed an exploratory approach to identify the factors that contributes to fruitful IT/Business alignment that guide alumni engagement initiatives through conducting a thorough literature review.

PROFILE OF ACTIVE ALUMNI

Alumni lifecycle consists of four stages. First is the identification stage, in this stage university will direct its effort to locate its alumni and learn about the knowledge they hold and also learn about their needs, interests, capacity, and segment. This stage will lead to the engagement stage. The next phase is retention where a long-lasting relationship with alumni will be build. Once the loyalty of alumni deepen, universities can now upgrade the relation and seek for more personalized connection (Straujum & Gaile-Sarkane, 2018). Weerts & Ronca (2007) categorized alumni giving and engagement with their alma mater into four group. First group referred to as "inactive" where they held no connection or contribution of any type. Second group is "volunteer", who donate their time and effort to support their university. The third group, "donor", provides a financial support to the university. The last group, "supporter", contribute the most by providing their full support and sacrifice their time, effort, and money (Weerts & Ronca, 2007).

Weerts & Ronca (2007) conducted an empirical study to draw a profile of supportive alumni who are expected to provide financial support, volunteer service, and/or political advocacy to their alma mater. The proposed conceptual model suggests that alumni capacity and inclination to support their alma mater depends on alumni demographic background, college experiences, and college outcomes. Researchers adopt different theory such as social exchange theory, expectancy theory, and investment mode to predict alumni relation with their alma mater (Weerts & Ronca, 2007).

Teixeira & Maccari (2014) characterized the active alumni association participants as alumni who were donors; shared their contact information with their alma mater; relatively older; had a positive experience during their study journey; have a positive perception about alumni association; were engaged student; and have a personal attachment with the universities and its members (Teixeira & Maccari, 2014).
As previous studies suggest, data related to alumni socio-economic can be leveraged to predict alumni support to their alma mater. The key demographic variables that can shape this relation are family size, and the ages and schooling of children and grandchildren. The likelihood of support increases with age as families mature and income increased. Data shows that people who are between 35-44 age group are more likely to participate rather than people who are in their early 20s or over 65. Other studies showed that gender has an impact where they found that women are more generous than men. As can be predicted financial burden is a major factor to forecast alumni engagement and support. It was proved that student who received scholarships on the time of study are more likely to donate than those who are recipients of need-based loans recipients. "Overall, lifecycles play a significant role in changing patterns of time use and are based on four factors: age, marital status, presence of children, and employment status". (Weerts & Ronca, 2007). A system must be in place to govern and analyze these data to develop communication programs that can engage all alumni groups.

VALUE OF ALUMNI ENGAGEMENT

The majority of previous research in the field of alumni support to their alma mater focus solely on the elements that can catalyze alumni financial support and donations, discussing matters related to individual donor characteristics, fundraising practices, external environment, and institutional characteristics. The new trends of research try to identify the impact of alumni professional and personal connections on bonding the university to the legislature, governor's office, corporations, industry, foundations, and expected donators (Weerts & Ronca, 2007; Weerts, Cabrera, & Sanford, 2010).

Universities have expanded their understanding about their relationship with alumni and comprehend alumni gains as well. The new adopted strategies are built on three main principles, student-faculty interrelation, social media, early career alumni, and alumni feedback (Jepps, Gregory, & Cresswell, 2019). The relation between universities and its alumni should be based on a win-win basis. Universities can create an active alumni engagement through events, providing professional opportunities, granting discount on products, services or courses, providing an online access to the digital library and periodicals, access to the university facilities such as fitness center, and travel programs (Teixeira & Maccari, 2014).

STRUGGLES IN FORGING LONG LASTING ALUMNI RELATION

Sometimes universities will succeed in stimulating their current students to become an active alumnus by engaging them in alumni activities where they can see the impact of alumni donations on the universities. His university connected with him regularly when he was a student. However, this relation could be negatively affected if the university communicates with their alumni only when they ask for donations. University should consider the power of emotional connection which motivate alumni to donate. This connection should be forged in early stages, reengage students and alumni is way difficult than keeping them engaged in the first place (Rancour, 2019).

Higher education advancement teams in American universities have noticed a shrinking alumni donation, however the total donations have been increased. The pressure on the fundraising team specially the team manager is increasing drastically to meet the goals of fundraising initiative (Reeher, 2019). According to Blackbaud Institute, in 2019 American universities received 5.6% of total fundraising from online giving. In 2020, while the online donations increased by 3.7%, the overall donations decreased by 5.2% (The Blackbaud Institute Index, 2020).

Straujum & Gaile-Sarkane (2018) described the relation between alumni and their alma mater in terms of marketing view. They study the application of customer knowledge management (CKM) in alumni relations management (AR) at universities to lead future direction and improvement. CKM focuses on capturing, storing and reusing customer knowledge for mutual benefit of the product/service provider and the customer. Managing information flow has been considered as a major issue. It is essential to identify the valuable knowledge that can be of use to the organization and not waste valuable university assets and efforts on irrelevant knowledge (Straujum & Gaile-Sarkane, 2018).

ALUMNI ENGAGEMENT PROGRAMS

Alumni programs are important for universities not only for fundraising but also, to improve learning and teaching, study plans, research, community outreach, career networking, university reputation, university/industry relationship, and strengthen the multi-dimension interaction and communication of industry-university-research. Alumni may assist universities in finding and connecting with researchers and educators, mentoring and providing career advice for students, hosting recruitment and job-hunting events, and teaching lifelong learning courses An increasing interest is paid to alumni work performance and quality of life by to accreditation bodies as an indicator of university (Smith, Gearhart, & Miller, 2019; Jepps, Gregory, & Cresswell, 2019; Dai & Lan, 2017).

Smith et. al. (2019) focused on discovering the intended outcome of implementing alumni societies and associations in community colleges. Researchers developed a survey and distributed electronically to collect data. The research found that the main focus of alumni societies is fundraising. As for the predicted future role of alumni societies, career assistance and mentoring students were at the top of the list which indicate universities efforts to provide more innovative ways to support their students (Smith, Gearhart, & Miller, 2019).

Rancour (2019) provided tips based on personal experience to strategically engage students to become active alumni. Current students are the future alumni supporter. Universities which are capable of supporting students throughout the different stages of their academic life using technology as well as providing face-to-face interactions will gain the maximum benefit from their alumni engagement programs. The engagement programs involve all universities stakeholders including its alumni which may provide consultation and mentoring services to current students (Rancour, 2019).

Some studies adopted social exchange theory to predict the alumni relationship with their alma mater. In this sense, the relationship is evaluated in economic terms where costs and benefits are weighed. The level of alumni satisfaction with the academic experience coupled with the university status will shape this relation. University with strong reputation who are capable of effectively engage their students in extracurricular activities and provide good guidance and support to their students to fulfill their academic program through advising and mentoring will surely maintain a successful relationship with their alumni (Weerts & Ronca, 2007; Mazambani, Reysen, Gibson, & Hendricks, 2017). Previous research shows that the perceived status of the university whether springing from the age of the university, perceived academic status and prestige, or name recognition and visibility affects alumni giving (Mazambani, Reysen, Gibson, & Hendricks, 2017). Fleming (2019), study found five factors (personal values, perceived institutional integrity, connectedness, commitment, and sense of fulfillment) that comprise alumni engagement and how they inform alumni relationships with their alma maters (Fleming, 2019).

ALUMNI INFORMATION SYSTEM

The alumni organization, like any organization, has unique characteristics that requires special considerations. Collecting, distributing, storing, and categorizing alumni data requires financial and human resources, as well as a full support from the university leadership (Peterson, 2007; Smith, Gearhart, & Miller, 2019). Historically, alumni information systems developed to store the fundamental information of alumni. The efficiency of these systems was low and consumed a huge amount of university resources. A well-structured alumni system supplies the university with an effective tool to manage alumni activities. Nowadays, universities worldwide implement online web-based alumni systems capable of connecting alumni anytime, anywhere. The system offers lifelong opportunity for universities to connect with their alumni (Weerts, Cabrera, & Sanford, 2010; Anthony, 2020).

The conventional way of reaching out to alumni starts with the creation of an alumni database that contains alumni contact information along with other important information such as employment information, hobbies, and post-graduate professional certifications and studies. Linking alumni database with alumni social media has significantly boost the university ability to maintain a long-lasting relationship. There is a tremendous increase of professional social media such as LinkedIn. University strategies that focus on encouraging their students to create accounts in these professional social media are intended to help students in job hunting and also to track students in future. Strategies are important to connect students through the use of social media and to understand the benefits that can be achieved (Jepps, Gregory, & Cresswell, 2019). In term of alumni data collection and storage, usually university contact alumni via phone and email, then the data will be registered in paper files which will be entered manually into the alumni system. This process in time consuming and requires considerable human resources especially for universities with a gigantic number of alumni. Further, it causes repetition of work, loss, dislocation, and delay of information (Dai & Lan, 2017; Sabri, Ahmad, & Abdulrazaq, 2017)

Universities are implementing alumni systems to forge active and ongoing relationships with their graduates. Traditional alumni systems are static and have very little to no space for interaction between university stakeholders. Usually, these systems are accessible only to the alumni. Chi et. al., 2012, developed a standalone web-based Smart Alumni System (SAS) that incorporate traditional features of alumni systems, selected features of social networking, and data mining to boost mentoring between alumni and other university stakeholders (current students, faculty, staff, and guests). Accustomed functionalities of alumni systems include providing alumni with information about the University, university events, university newsletters. It also provides a portal to donate money to the university. Social networking "can be described as the act of sharing the associations of business or social relationships for the purpose of exploring common needs, interests or goals". Networking has become easy to implement due to technological advancements. The implemented data mining techniques helps in targeting alumni with the appropriate profile to answer other stakeholders' questions, donate, or participate. SAS help alumni in connecting with their fellow classmates, professors, and university personnel; share professional or personal advice; explore mutual interests; and finding new opportunities (Chi, Jones, & Grandham, 2012).

The growing number of social media users combined with technology advancements provide universities with an opportunity to actively communicate and engage their students and alumni at a reduced cost and minimal human resources. In order to receive the maximum outcome and eliminate the risk of social media utilization endeavor, university must put in place a policy to govern the process. University leads engagement in the policy development and enforcement is important to ensure success (Kowalik, 2011).

Peterson (2007) provides an overview of the "World Learning" experience in reaching out to their "largely young, globally dispersed, and highly mobile alumni" via Web-based technologies. The first step was sending emails to make the first contact. This step was followed by implemented a multi-functionality online system to collect alumni data and share the organization information with not only alumni but also alumni's parents. Communicating with alumni parents targeted to receive their support either financially or through their volunteer participation in organization activities. World Learning received a 60% increase in parental financial giving following the introduction of the e-newsletter The basic functionalities of the system include "alumni directory" where alumni can enter and update their information; "forum" to distribute news about the organization, and "photo galleries". Other advanced features contain "donations" and "conference". Donations section presents information about alumni accomplishments, institution initiatives resulted from gifts, further guidance about ways to contribute and donate. Alumni engagement and participation was cultivated using variety of incentives like e-cards and scholarship donations. Alumni outreach system has been integrated with other important systems such as marketing and archive systems (Peterson, 2007).

Rattanamethawong (2015) introduced a framework for innovative alumni relationship management. This model was built on eight principles. Communications is the starting point where mass media and other specialized media are utilized to disseminate knowledge to university students and alumni. These communications are designed in a way that consider variances in demographic characteristics of alumni to enhance awareness among students and alumni and motivate them to actively participate and collaborate in alumni associations. The value creation depends on the communication program that is capable of improve alumni satisfaction and engagement (Rattanamethawong, Sinthupinyo, & Chandrachai, 2015).

System data can be analyzed with machine learning methods to discover hidden patterns which can be utilized to enhance university standing. The trends can reveal important knowledge that can guide university strategic direction. (Chi, Jones, & Grandham, 2012). The role of data specialist in the success implementation of alumni system is undeniable. Communication and coordination between system vendor and the organization regarding customization and training needs is vital. Active participation and engagement of organization employees from different departments and levels has a positive impact on the outcome of alumni outreach system implementation (Peterson, 2007; Smith, Gearhart, & Miller, 2019; Ratje, 2019). Nowadays, universities awareness about the advantages of integrating and directing student

affairs, academic affairs, and alumni services towards common shared goals has been elevated. Student affairs and alumni activities are forming a tight nexus to enhance organizational image and students experience. This is achieved through placing cooperative programs such as student life quality improvement program, student orientation programs, and student attraction and retention enhancement programs (Singer & Hughey, 2002).

CHALLENGES OF AIS

Alumni systems are prone to different practical, technical, and security challenges. These include alumni engagement, data issues (collecting, gathering, storing, and dissemination), data privacy security, gathering information from social media accounts, and current students involved (Chi, Jones, & Grandham, 2012).
Through the examination of alumni information system in East China, Dai & Lan (2017) recognized three essential problems associated with alumni information systems: data fragmantation; lateness of data transmission; and limited and inadequate functionalities. Emanating from their evaluation of the existing alumni systems, Dai & Lan (2017) construct an integrated smart alumni system consist of three main modules; "Alumni Social Network"; "Intelligent Data Acquisition and Storage"; and "Data Mining and Decision-Making Support". The alumni social network module allows alumni to edit and update their information and provides them with an interface to communicate with students, faculty, university management, and other alumni. The intelligent data acquisition and storage platform functions include data acquisition, data pre-processing, experts filtering, and data storage. The system can link data from several internal and external systems and platforms such as social networks and student's information system. Alumni section in the universities website usually is not integrated with the alumni information system. The techniques implemented in the system proved to be beneficial in improving the data accuracy and reliability, efficiency, and processes optimization. Data mining module are used to reveal hidden knowledge than can be utilized in decision making to improve employment, teaching, research, management and service (Dai & Lan, 2017).

Universities create, collecting, store, and disseminate tremendous amount of data. These processes require considerable money and resources which could be of limited value if knowledge cannot be derived from the collected and stored data. Traditionally the alumni data is decentralized and scattered throughout different units and departments which makes the utilization of alumni data for decision making insufficient (Dai & Lan, 2017; Anthony, 2020).

The year of 2020 presented unprecedented changes and challenges landscape. The novel coronavirus pandemic has forced organizations to shift from face-to-face activities and events to virtual events to control the spread of the virus (The Blackbaud Institute Index, 2020; The State of the Higher Education Subsector, 2020). Online technologies that are utilized to conduct virtual events include livestreams, peer-to-peer fundraising software, social media, and video. Virtual events require more advanced technologies and collaborations between IT teams and alumni engagement teams. Technologies that are used to advertise, host, and record the event, and then conduct post event activities such as thanking the participants and sharing the recorded event video with the participant and other university stakeholders. The quality of the used technologies and the internet connection are of utmost considerations (Virtual Events, 2020; Velasquez-Hague, 2020).

Universities are witnessing an increasing information security concerns among students, parents, alumni, and donors. Universities are required to continue delivering academics, information, and services through online platform while mitigating the risks associated with the use of technology. The advancement of technology brings new opportunities and threats to the educational environment. Security threats are becoming fiercer and more sophisticated in nature. It has been advocated to embrace a comprehensive program consists of effective strategies, guiding policies and procedures, awareness programs, and security technologies to improve security landscape (Gray, 2014).

Universities must consider implementing the organizational structure to ensure a successful implementation of security initiatives and compliance. While the data security team is responsible for implementing security measures, the chief information security officer (CISO) is accountable for implementing and maintaining the data systems. The development of security programs starts with risk assessment; a comprehensive registry of internal and external risks associated with the use of IT. Best-practices standards such as ISO 27001 Information Security Management could be adopted to improve security management and governance endeavor. One of the highest risk areas which requires continuous evaluation and monitoring is access rights (Gray, 2014).

Deploying one technology for fundraising will hinder the university from effectively engaging alumni. A mix of specialized technology solutions must be integrated, and strategies must be in place to improve data management and workflow. Interconnecting scattered data repositories to a central hub (hub-and-spoke infrastructure) outstrip the deployment of a centralized information source. hub-and-spoke infrastructure enhance the work efficiency of alumni engagement supporting staff and the advancement team since they can leverage their time in more vocal aspects rather than supporting the daily activities. crowdfunding, event, social media-driven giving, and phone program must be all geared together towards the creation of life-long engaged alumni (Reeher, 2019).

THE CURRENT STATUS OF JAPANESE UNIVERSITIES ALUMNI ENGAGEMENT INITIATIVES

Japanese universities are undergoing unprecedented challenges springing from the decrease in the 18-year-old population, decreasing grants and subsidies while expenses are increasing constantly. Japanese universities are implementing different strategies to build a stronger tie with their student with the aim to forge a lifelong relation with them. These strategies include providing financial support, employment support, and academic support through monitoring, advising, and counseling. Certain strategies are targeting graduates such as sending universities information using different means like magazines, brochures, and emails; convenience of use of university facilities; invitation of homecoming days; support for alumni associations, and lifelong learning programs. In returns, universities are expecting their alumni to provide feedback on educational results, participate in university events, spread information about the university, mediate in industry-academia-government collaboration, and help universities in fundraising and receiving research grants (Okawa, Shimada, Yamashita, & Junro, 2015).

University size, characteristics, and location defines its alumni engagement strategies. It has been found that large-scale universities are paying more attention and efforts toward these programs. Further, Japanese National Universities (NUC) are adopting more effective alumni engagement programs compared to private and public university (Okawa, Shimada, Yamashita, & Junro, 2015).

According to Okawa et al., (2015), NUC developed an increasing awareness about the importance of alumni engagement programs for both parties involved in the relation; alumni and their alma mater. Emanating from this believe, NUC incorporated alumni engagement programs goals in their medium-term goals and plans. Several measures were implemented such as homecomings events, career support, providing academic information, constructing alumni portal to store and share alumni information and connect them with their fellows and industry. In some universities, mentoring programs where alumni provide employment support and career education for university currently registered students were implemented. Moreover, for alumni who are intended to embrace an academic career, training sessions, seminars, and research presentations were organized to improve their skills.

The survey results show that the most important goals of the alumni engagement programs in Japanese universities (national, public, and private) is not to increase the fundraising, but to strengthen the relationship between the university and its alumni and to increase alumni interest in alma mater. This finding shows that universities are more aware of the strategic value of this relation which can help them in facing the heightened environmental challenges that threaten their existence. The identified issues hindering effective implementation of alumni engagement programs are alumni buy-in and support and

securing alumni information and the expenses associating with this mater (Okawa, Shimada, Yamashita, & Junro, 2015).

The Okawa et al. (2015) study presents a valuable snapshot of a point in time early in the post-privatization phase following the conversion of the national universities governed directly by the Ministry of Education to more independent national university corporations (NUCs). Almost a decade later, the NUCs have begun implementing new competitive strategies, the other public universities and private universities have started to react, and the difficult trends (decreasing college-age population, constricted education and research subsidies) have only deepened. Furthermore, the Okawa et al (2015) study did not have the benefit of the most recent research applying "smart" alumni information systems and social networking. There is a need for new work to determine the present state of the Japanese higher education industry's relation to its alumni, and to plan for future improvements in the face of ever more challenging conditions.

UNIVERSITY OF TSUKUBA ALUMNI ENGAGEMENT INITIATIVES

In this section, an example of alumni engagement methods implemented by one of the high ranked Japanese universities is presented. University of Tsukuba is one of the leading Japanese National Universities. The university alumni engagement program is built upon three pillars, alumni portal, donation website, and establishment of overseas offices.

Tsukuba alumni network (T-Net)

Toward its effort to strengthening its alumni network, the university of Tsukuba launch Network (T-Net) platform that consist mainly of four functionalities. The goal is to connect national and international alumni with each other and to connect them with the university. Figure 1 is a screenshot of T-net platform that shows these functionalities.

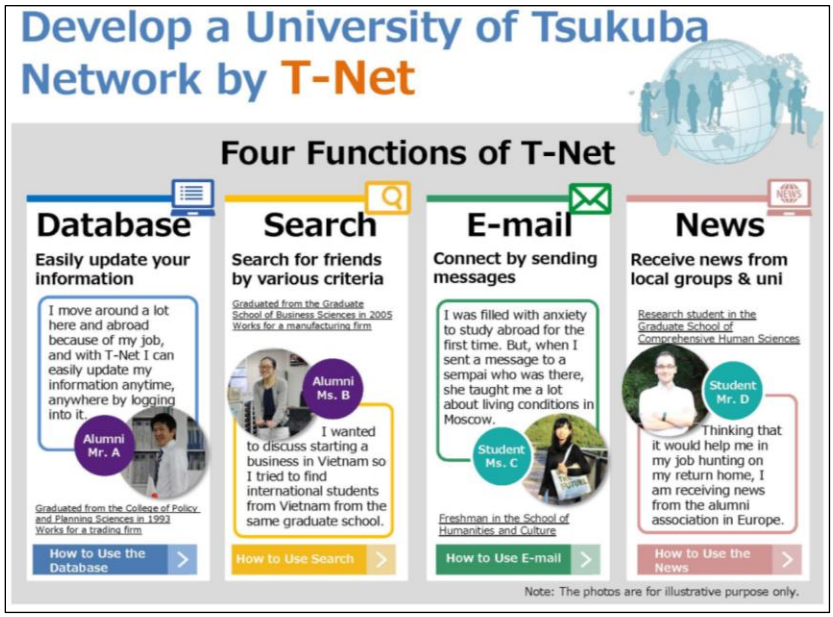

Figure 1: University of Tsukuba T-Net Platform

Overseas offices

University of Tsukuba has established 12 international offices in 7 different regions. While the immediate goal of these offices is to promote university standing internationally, the offices serve as a focal point to connect university alumni by organizing different events and activities.

Figure 2: University of Tsukuba Overseas Offices Portal

Tsukuba Futureship (donation website)
Tsukuba Futureship is a website that encourage university stakeholders to donate through providing a full information about the impact that donation can make in different aspect of the society. The donations are raised to serve two main projects, general fund projects and specific projects. The general fund projects include achievement of outstanding education and development of human resources, international exchange, world-class academic research promotion, and regional contribution as a hub of knowledge. Specific projects consist of University of Tsukuba sports association (TSA) project, hospital support project, student support project, and international student support.

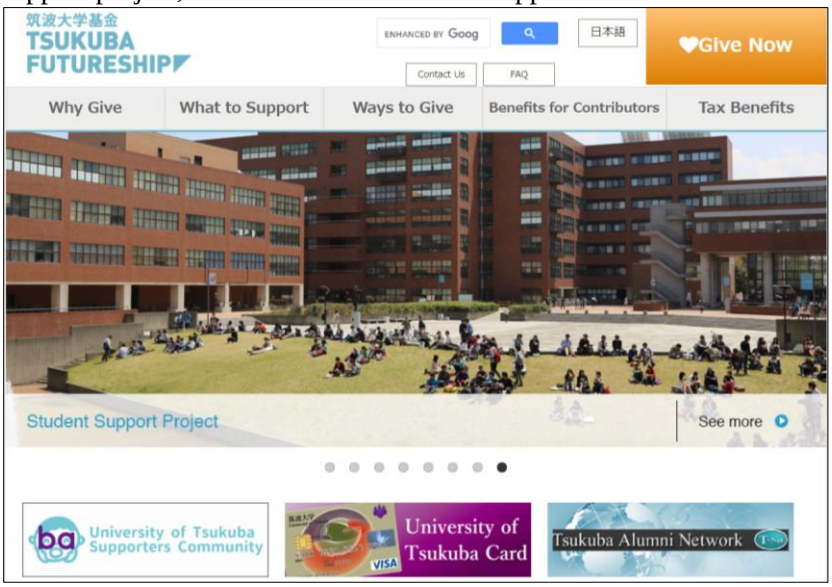

Figure 3: Tsukuba Futureship Website

A MODEL FOR EFFECTIVE GOVERNANCE OF ALUMNI DATA

Universities invest heavily in IT solutions to enhance learning and teaching, research, and business operations. Despite universities continuous efforts to enhance IT utilization, their efforts have not achieved the intended goals due to certain difficulties related to business/IT alignment, understanding the value of

IT, human resources and organizational structure, strategies, technical difficulties, and evaluation. Internal and external factors may force the organization to entirely alter their way they are doing business. Amid coronavirus pandemic, the need for comprehensive frameworks that focus on the intelligent technologies to continue organization operations has evolved.

A comprehensive intelligent alumni engagement program is established on number of elements which are strategies, organizational structure, data mining, awareness programs, management buy-in and involvement, evaluation and monitoring, and mix of technologies.

The starting point for carrying out any program is the strategy which is formed to accomplish certain organizational goals. The modern alumni engagement programs are built upon a reciprocal beneficial interrelation between the university and their alumni. The conventional alumni engagement programs focused on university benefits only which makes alumni feels used by the university. This can risk the continuation of the relation and may require university to correct its mistake and initiate reengagement programs which could be more challenging than maintaining the relation in the first place. The essential benefit that university opt for is to receive donations from alumni. Other benefits include utilizing alumni connections to find internships positions for their students, receiving research grants, and influencing governmental and political directions and policies. Alumni can also provide consultations and mentoring services to the university and its stakeholders in several matters such as career counselling, academic program evaluation, and academic mentoring. In return for their support, universities may reward alumni with a symbolic recompense such as inviting them to events, providing professional certifications studies, granting discount on products, services or courses, providing an online access to the digital library and periodicals, access to the university facilities.

Universities are implementing a mix of technologies to support students throughout their academic journey. These technologies range from basic applications to perform main functions like course registration, communicating with faculty and staff, sharing course information and materials, and paying course fees; to more intelligent software that integrate data from different electronic online platforms (Student Information System, Learning Management System, Social Media Accounts, Communication Tools, etc.) and then utilize data mining techniques to better guide, advise, or support students or help in the decision making process. The quality of decision making relies on the quality of data and the used data mining techniques. The majority of security countermeasures protect the organization from the outside attackers while the real risk resides in the hands of the organization system users who possess higher levels of knowledge, resources, and access (Vance, Lowry, & Egget, 2013). Alumni relation with their alma mater does not end after graduation, alumni will still be granted with an access to the university systems to perform certain tasks like participating in online courses, update their contact, employment, communication preferences, and education information, accessing online databases, mentoring students, and attending MOOCs. This access triggers a sequence of security concerns related to access rights, ethical use of alumni data, security awareness, availability of guiding policies and procedures, data ownership, and compliance with internal and external laws and legislations.

The existence of a well-defined organizational structure that explicitly state roles and responsibilities, reporting line, external and internal communications, and required skills and certifications will ensure a successful implementation of alumni engagement program. Another useful tool is the adoption of RACI (Responsible-Accountable-Consulted-Informed) matrix to acquire top management and other stakeholders buy-in and engagement. Vice President for Information and Technology acts spearheads IT Governance function through evaluating, directing, and monitoring IT initiatives toward the achievement of university goals. The role ensures an active and effective communications, participations and collaborations between IT and Business in different levels (governance bodies, management, and operational levels) which will enhance the outcome of alumni engagement system. The role will ensure the availability of guiding policies and procedures, organizational structure, technologies, evaluation and follow up measures, and top-

management buy-in to actively govern the alumni intelligent system. As can be notice, the system builds upon different components, not only automated technologies.

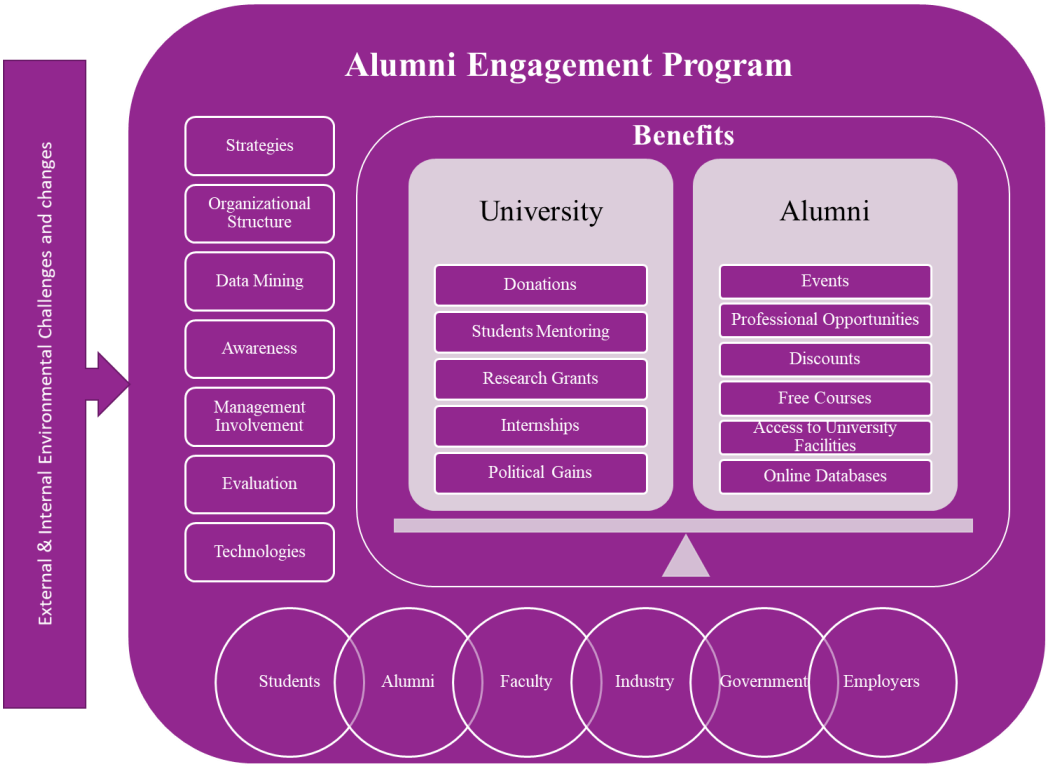

Figure 4: Framework for Effective Governance of Alumni Engagement Program

While Vice President for Information and Technology covers all aspect of IT, Chief Data Officer (CDO) focus mainly on Data Governance. Some universities assign DG function to Vice President for Information and Technology while others place it within Institutional Research (IR) function with a shared responsibility with stewards of the operational data systems and campus policymakers. A great emphasis has been placed on the role of data dictionary to achieve DG goals. Data dictionary serves as a central metadata repository that provides shared definitions of data elements. Data analyst leads the business analytics initiatives that aims to discover hidden knowledge through interpreting, contextualizing, and correlating data (Chapple, 2013). The role of CDO is a very critical specially in organizations where their ultimate goal is knowledge creation, extraction and dissemination. Chief Information Security Officer (CISO) works closely with CDO to protect university data.

Emanating from the influence of student satisfaction, student personal attachment, and student engagement on their future contribution to support their alma as alumni, functions that elevate these aspects must be involved in the alumni engagement program. Examples of these functions are academic affairs, student affairs, and advising and counselling. Alumni section and donations section should strive to build a strong relation with these functions to yield better outcomes.

Best-practices standards could be adopted to the better understand the requirement to achieve the desired goals and to guide the implementation and follow up practices. Examples of best practices includes COBIT (Control Objectives for Information and Related Technology) developed by the Information Systems Audit and Control Association (ISACA) for IT Governance and ISO2700 for security management.

Relation management though it is critical to the success of the alumni engagement programs, yet it is a complex endeavor. Its complexity engenders from the magnitude of interaction between diversified constituents with different interests, goals, and needs. Communications should be guided through clear policies and procedures that protect all stakeholders from misuse of information, ethical misconduct, or invasion of privacy. Technical platforms provide tools to customized communications based on every single person preference. Another important consideration is the development of comprehensive awareness programs that consider every group responsibility and needs. Awareness programs should address questions like what every constituent needs to know? how to communicate the message? through which channel?

CONCLUSION

Despite universities great spending to enhance alumni engagement programs, they do not yet t fully achieve the intended goals. Literature review shows that the problems lay in the lack of comprehensive strategies that consider university and alumni interest in maintaining this kind of relations, the focus on fundraising solely, decentralization of data, absence of top management buy-in and support, inadequate intersectional participation and collaboration, inadequate resources optimization, absence of communication and awareness programs, inappropriate technologies integration, and unavailability of certain roles/positions. As for Japanese universities, the university profile defines its ability to construct effective alumni engagement programs. In this study an alumni engagement, lifelong engagement, and reengagement framework has been developed to address these issues. The proposed framework focus on the existence of well-defined organizational structure that allows for better governance of the alumni engagement system through business/IT alignment. Future research will be directed towards investigating the methods needed to improve the governance of alumni engagement programs in Japanese National Universities (NUC).

FUTURE RESEARCH

In this research, we focused on identifying the factors that affect IT/Business alignment alumni engagement programs. Future research will be directed towards investigating the current status of IT governance of alumni engagement program at Japanese National Universities (NUC). A survey questionnaire will be developed that includes the elements of Okawa et al., (2015) study plus the IT governance factors identified in this study.

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Corporate philosophy as a linking mechanism: Antecedents and behavioral outcomes of internalization of corporate philosophy at Japanese MNCs in Thailand

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Corporate philosophy as a linking mechanism: Antecedents and behavioral outcomes of internalization of corporate philosophy at Japanese MNCs in Thailand

ABSTRACT

At multinational corporations' (MNCs) foreign subsidiaries, internalizing corporate philosophy is considered critical in promoting the behaviors of local employees to achieve corporate goals. However, we know little about what factors in MNCs' foreign subsidiaries facilitate the internalization of corporate philosophy among foreign subsidiary employees and what the behavioral consequences of the internalization are. To address the research gap, we conducted a study using a sample of 374 supervisor-employee dyads which is nested in 66 work teams in Japanese MNCs in Thailand. Our analysis showed that Japanese management practices were positively related to and the HQ control was negatively related to the internalization of corporate philosophy among the teams of local employees at the subsidiaries, which in turn was related to the team members' in-role performance and knowledge sharing behaviors. In addition, team boundary work moderated the relationships between Japanese management practices, the HQ control, and the internalization of corporate philosophy. The findings of our study advance the understanding of the role of corporate philosophy in managing MNCs' foreign subsidiary employees.

Keywords: Japanese MNCs, internalization of corporate philosophy, Japanese management practices, headquarters' control, knowledge sharing behavior, in-role performance

INTRODUCTION

With the progress of globalization, managing foreign subsidiaries is critical to the success of multinational companies (MNCs). However, to successfully coordinate and control their foreign subsidiaries, MNCs have to overcome the geographical, cultural, and institutional distance between the headquarters (HQ) and the subsidiaries. The distance makes it challenging for HQ to implement HQ's global strategy and corporate goals in host countries. In this respect, the normative control as well as the bureaucratic control may encourage a smooth working relationship between the parties (Cummings and Teng, 2003), the integration of different operations within an MNC, and may result in improved performance (Bartlett and Ghoshal, 1989). Whereas the bureaucratic control of MNCs mainly relies on explicit formal rules to manage foreign subsidiaries, the normative control of MNCs ensures that key employees worldwide make decisions and behave in accordance with the values, beliefs, and norms of the global corporation, thus reflecting its corporate philosophy (Pucik et al., 2017).

Corporate philosophy can be one of the normative means of coordination and control of foreign operations in MNCs. Corporate philosophy represents management philosophies or principles that guide an organization's internal conduct. "Management philosophy refers to the central, distinctive, and enduring concepts, beliefs, principles, and attitudes guiding business management, which are critical in the pursuit of a mission" (Wang, 2011, p.111). Indeed, many studies on management system transfer, including human resource management (HRM) practices, are premised on the belief that a shared corporate philosophy is an important factor in promoting the transfer of HQ's management style to foreign subsidiaries (Beecher and Yang, 1994). Besides, if the internalization of corporate philosophy in foreign subsidiaries is promoted successfully, MNCs can manage employees of their foreign subsidiaries effectively.

Despite the importance of internalizing corporate philosophy, surprisingly little research has been conducted on the impact of MNC's management styles, which are influenced by the country of origin with respect to the degree of internalization of the corporate philosophy and ultimately its impact on employee behaviors in foreign operations. Therefore, to address this research gap, this study

investigates the factors that promote understanding and internalization of corporate philosophy among foreign subsidiary employees of Japanese MNCs. We posit that Japanese management practices such as on-the-job training, quality control (QC) circle activities, and job rotation in foreign subsidiaries, and how HQ controls over the foreign subsidiaries influence the understanding and internalization of corporate philosophy among local employees in the subsidiaries, which in turn influences their in-role performance and knowledge sharing behaviors.

In this study, we focus on Japanese MNCs, in particular Japanese subsidiaries in Thailand, and the characteristics of their management style for the following reasons. First, corporate philosophy has become an essential ethical foundation for managing employees in Japanese MNCs (Pucik and Hatvany, 1983; Wang, 2011). Second, it has been observed that Japanese MNCs emphasize the use of management systems in their foreign subsidiaries that are developed at Japanese HQs (Harzing, 1999; Kopp, 1994). We predict that this Japanese management style has an impact on the internalization of corporate philosophy among foreign subsidiaries. Third, Japanese MNCs have long business careers in Thailand owing to their being considered strategically important as manufacturing bases. In particular, Thailand was chosen as an important manufacturing base second only to China among automotive companies because it had no national car program. This sector was then viewed as fairly liberalized compared to Malaysia and Indonesia (Coe et al., 2004). Fourth, as Asian countries are geographically and culturally close to Japan compared with other regions such as Europe, we predict that Japanese MNCs may be more likely to be successful in having their corporate philosophy internalized in their Thailand subsidiaries compared with foreign operations in other regions (Dellestrand and Kappen, 2012; Harzing, and Noorderhaven, 2006).

To test our theoretical model and hypotheses, we conduct an empirical study using 374 supervisor-subordinate dyads which is nested in 66 teams in Japanese foreign subsidiaries in Thailand. We focus on work teams in Japanese MNCs' foreign subsidiaries because Japanese companies emphasize the team- oriented working style that is characterized as consensus-building, employee involvement, and job assignment flexibility (Abo et al., 1991; Ichniowski and Shaw, 1999; Ouchi, 1981). In this regards, we posit to what extent to which Japanese management practices are

implemented in foreign subsidiaries and how much control over the subsidiaries differ across work teams. Therefore, we assume that corporate philosophy is shared and internalized within work teams in Japanese MNCs. By developing the theoretical framework and empirical findings, our study contributes to the international business research regarding the role of internalization of corporate philosophy in understanding of the management of MNC's foreign subsidiary employees. In particular, our study theorizes and empirically tests the factors which promote internalization of corporate philosophy at foreign subsidiaries of MNCs, which promotes positive employee behaviors. Moreover, our study provides a useful clue as to how MNCs' managers can manage their foreign subsidiaries' employees effectively.

THEORY AND HYPOTHESES

Corporate philosophy internalization and employee behaviors

Corporate philosophy is viewed as guiding employee behaviors toward organizational goals (O'Reilly and Pheffer, 2000), which promotes shared goals, values, and beliefs (Nohria and Ghoshal, 1994) for building interpersonal homophily, trust, and close interpersonal networks in an MNC. Corporate philosophy in MNCs can be transferred and shared among employees through interpersonal interactions, such as those occurring between HQ and a subsidiary and joint-work in team task forces and committees (Ghoshal and Bartlett, 1988). The more various distinct units are socialized into MNC's goals and vision, the more they are to achieve open and dense communication and enhance resource and knowledge exchange within MNCs (Björkman et al. 2004; Ghoshal and Bartlett, 1988; Gupta and Govindarajan, 2000; Szulanski, 1996, 2000). Previous studies showed a positive relationship between internalizing corporate philosophy and employees' organizational citizenship behaviors (OCB) (Organ, 1988) in their workplace (e.g., Hatvany and Pucik, 1981; Scott, 1966; Wang, 2009, 2011). Corporate philosophy is considered to be closely related to organizational identity, or the shared understanding of the central, distinctive, and enduring attributes of the organization among their members (Albert and Whetten, 1985; Wang, 2011), which is viewed as a basis for employee identification with the organization (Dutton et al., 1994). Social identity theory (Tajefel and Turner, 1986) and self-categorization theory (Turner et al., 1987) suggests that corporate philosophy might

function as an important social category for understanding personal attributes and the identity-construction process (Wang, 2011). Therefore, the more employees expand their understanding of the corporate philosophy, the more they try to act on it because they feel psychologically attached to the organization. The employees are also motivated to help their colleagues to achieve corporate goals if they understand and internalize the corporate philosophy. In our research context, we posit that corporate philosophy will be shared and internalized among team members through teamwork at the subsidiaries of Japanese MNCs.

We focus on in-role performance and the knowledge sharing behaviors of the foreign subsidiaries' employees as behavioral outcomes examined in this study. In-role performance refers to actions specified and required by an employee's job description and thus mandated, appraised, and rewarded by the organization (Janssen and Van Yperen, 2004). In-role performance has been the most fundamental and important factor for achieving organizational goals and has been the most frequently examined performance outcome in the field of management (Halbesleben and Wheeler, 2007; Harris et al., 2011: Lee et al., 2004; Sekiguchi et al., 2008). Knowledge sharing behaviors are considered as "a set of individual behaviors involving sharing one's work-related knowledge and expertise with other members within one's organization" (Appel-Meulenbroek, Weggenman, and Torkkeli, 2018; Bock et al., 2005; Yi, 2009). Knowledge sharing behavior among foreign subsidiary employee is especially critical in the context of international business because transferring and sharing knowledge between HQ and foreign subsidiaries and disseminating knowledge within the foreign subsidiaries are essential for the successful operation of MNCs (Ghoshal and Bartlett, 1988; Gupta and Govindarajan, 2000; Szulanski, 1996, 2000). Indeed, many Japanese companies emphasize corporate philosophy (Wang, 2011) and sharing knowledge with team members in terms of *kaizen* and QC circle activities (Ichinowski and Shaw, 1999).

Generally speaking, if teams can internalize corporate philosophy, the team members are encouraged to help their colleagues to achieve team and corporate goals (Wang, 2011). Therefore, internalization of corporate philosophy at team level promotes the team members' willingness to act to achieve MNC corporate goals. That is, subsidiary team members who internalize corporate philosophy

are motivated to perform what is expected to them (i.e., in-role performance) and share knowledge that is important to improve the operation of the teams (i.e., knowledge sharing behaviors). Therefore, we offer the following hypothesis.

Hypothesis 1: *Internalizing corporate philosophy within work teams of Japanese MNCs' foreign subsidiary is positively related to the subsidiary employees' in-role performance and knowledge sharing behaviors.*

Japanese management practices/management control and corporate philosophy internalization

We posit that corporate philosophy of MNCs is largely influenced by the management practices of their home country. Therefore, in our research context, we predict that Japanese management practices, when implemented, have a strong influence on the internalization of corporate philosophy at Japanese MNCs' foreign subsidiaries.

Previous studies have pointed out that Japanese MNCs have unique management practices and systems that reflect Japanese culture, and these are transferred to their foreign subsidiaries by using expatriates from HQs to control and coordinate foreign subsidiaries (Abo et al., 1991; Keeley, 2001; Kinbara, 1988; Triandis, 1989; Yasumuro, 1986; Yoshihara, 1996;). The unique features of Japanese management practices include a team-work-oriented working style that has consensus-building, employee involvement, and job assignment flexibility, which are central to the *kaisen*, or to continuous improvement. These management practices have been considered as a source of their competitive advantages especially in the period between 1960s and the 1980s (Ichniowski and Shaw, 1999; Nonaka and Takeuchi, 1995; Ouchi, 1981).

Japanese style of teamwork which is based on the assignment of task to a team, has enabled Japanese companies to foster multi-skilled workers, to have a high level of firm-specific knowledge and know-how (Abo et al., 1991), to improve feeling of group cohesiveness, and to promote information sharing among team members (Okubayashi, 2000). This Japanese management practices may follow suit with each Japanese company's corporate philosophy because the corporate philosophy is basis of the control mechanism in Japan. Some researchers have pointed out that utilizing Japanese management practices in foreign subsidiaries is almost identical to implementing corporate philosophy

in focal subsidiaries (Ouchi, 1981; Yoshida, 1989). Therefore, we predict that the more work teams in foreign subsidiaries implement Japanese management practices, the more team members understand, share, and internalize MNCs' corporate philosophy. Based on the argument above, we predict the following.

Hypothesis 2: *The degree to which Japanese management practices are implemented in work teams is positively related to the internalization of corporate philosophy within the teams in Japanese MNCs' foreign subsidiaries.*

The way MNCs HQ control the work teams of foreign subsidiaries might also influence the degree of corporate philosophy internalization at the subsidiaries. Generally, international management controls can be categorized into two types: bureaucratic control and normative control (Baliga and Jaegar, 1984; Beechler, 2005). The bureaucratic control relies on explicit formal rules, such as reporting systems and procedural or policy manuals, and regulations which delineate desired performance in terms of output and/or behavior (Child, 1973). In our research context, we use the word "HQ control" the degree to which HQ emphasizes bureaucratic control over the work teams of their subsidiaries. The bureaucratic control was considered to reflect centralization; that the authority of lower-level managers in the organizations as well as of subsidiary management's role to make significant decisions was very limited. Thus, HQs that emphasize using the bureaucratic control over the work teams of their overseas subsidiaries overlook transference of power to their subsidiaries (Baliga and Jaeger, 1984). We predict that under strong HQ control situations, the work teams of foreign subsidiaries may be managed based on the instruction from HQs. In this case, corporate philosophy is less apt to internalized by employees in MNCs' foreign subsidiaries.

On the other hand, when HQ control is weak at the work teams of foreign subsidiaries, the autonomy of these teams will be large. In this case, the normative (cultural) control, would become critical to regulate the teams' operation. The normative control relies on more informal and implicit control, and it is assumed that firms control employees by fully socializing them to internalize organizational values and norms to develop commitment to the organizations. This control model is employed in many large Japanese organizations as well as some Western organizations (Baliga and

Jaegar, 1984; Ouchi, 1979). Cultural control systems are considered to reflect delegation or decentralization (Baliga and Jaegar, 1984). These characteristics of normative control suggest that internalization of corporate philosophy at foreign subsidiaries is essential to make this type of control effective. Corporate philosophy is a means for cultural control by the HQs. In other words, under weak HQ control situations, MNCs may emphasize normative control, which suggests that the work teams of foreign subsidiaries are expected to manage themselves autonomously based on corporate philosophy as management guidance. Thus, corporate philosophy is more likely to understand, shared, and internalized among the teams of foreign subsidiaries. Therefore, we predict the following.

> **Hypothesis 3**: *The degree of HQ control to work teams is negatively related to the internalization of corporate philosophy within the teams in Japanese MNCs' foreign subsidiaries. '*

Based on the discussion so far, we also predict the indirect effect of Japanese management practices and HQ control in the work teams of Japanese MNCs' foreign subsidiaries on foreign subsidiary employees' in-role performance and knowledge sharing behaviors through the internalization of corporate philosophy. That is, the internalization of corporate philosophy plays an important mediating role between management styles and employees' in-role performance and knowledge sharing behaviors in Japanese MNCs' foreign subsidiaries.

> **Hypothesis 4**: *Internalization of corporate philosophy within work teams mediates the relationship between Japanese management practices / HQ control at the team-level and in-role performance and knowledge sharing behaviors among foreign subsidiaries' employees of Japanese MNCs.*

Team boundary work as a moderator

We posit that team boundary work serves a critical boundary condition that affectsthe influences of Japanese management practices and HQ control on the internalization of corporate philosophy among foreign subsidiary employees. "Team boundary work is defined as the activities that a team engages in to establish and maintain boundaries and manage interactions across those boundaries" (Faraj and Yan, 2009, p.604). It has been shown to be crucial for acquiring information,

resources, knowledge, and innovation inside organizations (Ancona and Caldwell, 1988; Argote et al., 2003). Team boundary work has three dimensions; boundary spanning, buffering, and reinforcement. Boundary spanning refers to actions a focal team establishes and manages external linkages to critical resources including information and knowledge by using internal social network ties (Faraj and Yan, 2009, p.606). Connectors (Whelan and Teigland, 2013), ambassadors, task coordinators, and scouts (Ancona and Caldwell, 1988) obtain information from outside the organization and translate the information for other members of that organization (e.g., Whelan et al., 2011; Whelan et al., 2013). Boundary buffering is referred to as "an entity that buffers to protect itself against uncertainties and disturbances from without, thereby enhancing the possibility of rational action within" (Faraj and Yan, 2009, p.606). Boundary reinforcement refers to activities "in which a team internally sets and reclaims its boundaries by increasing member awareness of boundaries and sharpening team identity" (Faraj and Yan, 2009, p.607).

Team boundary work is important for teams which often implement Japanese management practices in ordinary operations because the teams acquire key information and knowledge through learning with other teams. As a result, the teams have opportunities to consider the meaning of the information and knowledge acquired from external parties in the light of corporate philosophy. Team boundary work may moderate the relationship between Japanese management and internalization of corporate philosophy. Thus, we expect that when the team boundary work is high rather than when it is low, the relationship between Japanese management and the internalization of corporate philosophy will be stronger. Stated formally:

> **Hypothesis 5**: *Team boundary work will moderate the positive effect of Japanese management and internalization of corporate philosophy within work teams such that the effect is stronger for teams with high rather than low team boundary work.*

In contrast, we predicted that team boundary work moderate the negative effect of HQ control and internalization of corporate philosophy. Because, teams of foreign subsidiaries under weak HQ control situations need to consider its management and performance. The teams actively interacts across parties to acquire information from key external parties and have opportunities to scrutinize and

deliberate the information in line with corporate philosophy, which in turn leads to internalizes corporate philosophy in the teams of foreign subsidiaries. Therefore, we hypothesize a negative moderating effect on the relationship between HQ control and the internalization of corporate philosophy. Stated formally:

> **Hypothesis 6**: *Team boundary work will moderate the negative effect of HQ control and internalization of corporate philosophy within work teams such that the effect is stronger for teams with high rather than low team boundary work*.

The overall model of our study is depicted in Figure 1. As shown, Japanese management practices, HQ control, and internalization of corporate philosophy are considered as team-level variables and foreign subsidiary employees' in-role performance and knowledge sharing behaviors are considered as individual-level variables. Thus, our model reflects multi-level processes involving corporate philosophy as linking mechanism between the management effort of MNC's foreign subsidiaries and foreign subsidiary employees' individual behaviors.

Insert Figure 1 about here

METHOD

Participants in this study were from seven subsidiaries of Japanese manufacturing MNCs operating in Thailand. Five of these companies belong to the automotive industry. Others belong to the manufacture of plastic products and the manufacture of pulp, paper and paper products. These companies allowed the authors to survey employees and their supervisors. Upon the request by the authors, employee surveys and supervisor surveys were electronically distributed by the subsidiaries' HR departments, and employees and supervisors who agreed to participate in this study completed the survey during the period of August through September 2017. Survey response anonymity was guaranteed. In total, 416 employee responses (91.0% response rate) and 456 supervisor responses (99.8% response rate) were received. Samples from employees and supervisors were matched, resulting in 374 employee-supervisor dyads in which both employees and their supervisors responded

to the survey. These work groups belonged to 66 teams across the seven companies. They belonged to the variety of departments including production (44.9%), sales and marketing (14.5%), QC (9.2%), engineering (7.0%), administration (6.0%), accounting (3.3%), purchase (2.9%), warehouse (2.4%), human resources (2.7%) and others (1.8%).

Measures

Most of the items used in our study were originally developed in English and the items on corporate philosophy internalization and Japanese management practices were originally developed in Japanese. They were translated into Thai for our study and some wording was adjusted to the research context. We then followed the translation-back-translation procedure (Brislin, Lonnger, and Thomdike, 1973) to ensure that the original meanings of the items were retained after translation to Thai.
All items were indicated on a 5-point scale (e.g., 1 = strongly disagree; 5 =strongly agree).

Internalization of corporate philosophy

Internalization of corporate philosophy was measured with 11 items adopted from Takao and Wang (2012) We asked team members how well you understand the corporate philosophy. Sample items were: “I am identified with the management philosophy and ethical codes of this organization” and “I can explain the management philosophy to people outside the organization if required.” We adopted the direct consensus composition approach (Chan, 1999, 2019) which involved averaging across individual group members’ own internalization of corporate philosophy and assigning each group member the average value of their group for the internalization of corporate philosophy. Although the referent measured was “I”(i.e., how I understood and conducted), the referent of interest was the team (i.e., how the team understood and conducted). Colquitt et al. (2002) and Liao and Rupp (2005) used similar methods to operationalize their team construct).Cronbach’s alpha for the eleven-item scale was .92. Given our assumption that corporate philosophy will be shared and internalized among team members through team work, we aggregated these items to make a team-level variable. The intraclass correlation coefficient (ICC) (1) was 0.27 and ICC (2) was 0.64.

Japanese management

Japanese management was measured with five items which were considered as typical

Japanese management practices in the previous studies (Abo et al., 1991; Ichniowski and Shaw, 1999). Supervisors were asked to indicate to what extent their team adopts the practices. Sample items were: “QC circle activities”, “job rotation”, “on- the- job training oriented tasks”, “collective decision-making”, and “management by objective (MBO) based tasks”. Cronbach’s alpha of the five-item scale was .80. Because we assumed that management practices were implemented differently across work teams, we aggregated these items to make a team-level variable. The intraclass correlation coefficient (ICC) (1) was 0.61 and ICC (2) was 0.89.

HQ control

HQ control was measured with eight items adapted from Johnston and Menguc (2007) and Hedlund (1981). We asked supervisors how much influence HQ would have on decisions given below. Sample items were: “Extension of credit to a major customer”, “training programs in your country”, and “quality control norms”. All items were indicated on a 5-point scale (e.g., 1 = the subsidiary decision; 5 =HQ decision). Cronbach’s alpha of the eight-item scale was .85. Because the degree of HQ control was assumed to be different across work teams, we aggregated these items to make a team-level variable. The intraclaass correlation coefficient (ICC) (1) was 0.44 and (ICC) (2) was 0.77.

Team boundary work

Team boundary work was measured with 12 items adapted from Faraj and Yan (2009). Supervisors were asked to indicate to what extent their teams implement activities below. Sample items were: “To what extent has this team tried to create a clear sense of its identity and purpose?”, “to what extent are outside pressures deflected or absorbed so that the team can work free of interference?”, and “to what extent does the team encourage its members to solicit information and resources from elsewhere?”. Cronbach’s alpha of the twelve-item scale was .92. Because team boundary work is a team-level construct, we aggregated these items to make a team-level variable. The intraclass correlation coefficient (ICC) (1) was 0.27 and ICC (2) was 0.65.

In-role performance.

The supervisor of an employee rated the degree of their in-role behavior with five items adapted from Williams and Anderson (1991). Sample items were: “This subordinate fulfills all

responsibilities required by his/her job" and "this subordinate fulfills responsibilities specified in the job description." Cronbach's alpha of the five-item scale was .94.

Knowledge sharing behavior

The supervisor of an employee rated the degree of their knowledge sharing behavior with the three-item adapted from Carraher, Sullivan, and Crocitto (2008). Participants were asked to indicate their agreement with statements such as, "I share my accumulated knowledge with members of my organization," and "I share my organizational experiences and know-how with members of my organization". Cronbach's alpha of the five-item scale was .90.

Control variables

We used the following factors as control variables that were considered to possibly affect the key variables in our study: employee's age, gender, and tenure at the time of the survey.

RESULTS

The descriptive statistics and correlations among the variables used in this study are shown in Table 1. Before testing the hypotheses, we conducted confirmatory factor analysis (CFA) to examine the discriminant validity of the overall measurement model; these results are shown in Table 2. The proposed six-factors model, internalization of corporate philosophy, Japanese management, HQ control, team boundary work, in-role performance, and knowledge sharing, Model 1 in Table 2, showed a good fit to the data (χ^2 [454] = 1151.89, $p < .001$; CFI = .81; TLI = .80; SRMR = .08; RMSEA= .09), and all factor loadings were significant and larger than .50. To assess whether common method variance was present in the data structure, we compared the results of CFA on the baseline model reported above with those of the one-factor model in which all variables are attributed to common method variance (Podsakoff et al., 2003). The CFA results for the one-factor model (Model 2 in Table 2) showed a poor fit to the data (χ^2 [464] = 2867.93, $p < .001$; CFI = .36; TLI = .31; SRMR = .17; RMSEA= .16) and the fit to data for Model 1 was significantly better than Model 2 ($\Delta\chi^2$ [10] =1151.89, p< .001). This result indicated that common method bias was less likely in our data.

Table 1 goes about here

Table 2 goes about here

As an initial step to test Hypotheses 1 to 4, we conducted structural equation modeling (SEM). The results of SEM are reported in Table 2. First, the results of SEM for our original model, Model 3 in Table 2, showed a good fit (χ^2 [545] = 1251.31, $p < .001$; CFI = .81; TLI = .80; SRMR= .08; RMSEA= .08). Next, we tested alternative models in which paths led from Japanese management practices and HQ control to in-role performance and knowledge sharing behavior, which is seen in Model 4 in Table 2. The results of SEM showed a slightly improved model fit (χ^2 [541] = 1241.26, $p < .001$; CFI = .81; TLI = .80; SRMR= .08; RMSEA= .08), and the fit to data was significantly better than Model 3 ($\Delta\chi^2$ [4] = 10.055, $p< .05$). Based on the above results, we concluded that Model 4 showed the best fit to the data; thus, it was our final model. The final model showed that direct paths from internalization of corporate philosophy to in-role performance and knowledge sharing behavior were both significant ($\beta = .22$, $p < .01$, $\beta = .29$, $p < .001$, respectively), supporting Hypothesis1. Next, the direct paths from Japanese management practices and HQ control to internalization of corporate philosophy were both significant ($\beta = .20$, $p < .01$; $\beta = -.21$, $p < .01$, respectively), which support Hypothesis 2 and Hypothesis 3. In addition, because the paths from Japanese management practices and HQ control to internalization of corporate philosophy, and the paths from internalization of corporate philosophy to in-role performance and knowledge sharing behavior were simultaneously significant, even after introducing direct paths from Japanese management practices and HQ control to in-role performance and knowledge sharing behavior, the results support the mediating role of internalization of corporate philosophy. Therefore, Hypothesis 4 was also supported.

Table 3 goes about here

Because employees in our sample were nested in 66 work teams, we performed multilevel analysis to further confirm the results for Hypotheses 1 to 4. First, we calculated two interrater reliability indices (ICC) (1) and (ICC) (2) for independent and mediator variables. The ICC1 estimates were .61 for Japanese management practices, .44 for HQ control, and .27 for internalization of corporate philosophy. The ICC2 estimates were .89 for Japanese management practices, .77 for HQ control, and .64 for internalization of corporate philosophy. Because these statistics generally justified the aggregation of the variables, we aggregated Japanese management practices, HQ control, and internalization of corporate philosophy to the team-level. We then regressed internalization of corporate philosophy onto Japanese management practices and HQ control at the team-level. The ordinary least squares (OLS) regression analysis revealed that Japanese management practices and HQ control at the team levels were both significantly related to internalization of corporate philosophy at the team level (γ=.26, $p<.01$, γ=-.22, $p<.05$ respectively). Next, using a multilevel analysis, we regressed individual-level in-role performance and knowledge sharing behaviors onto Japanese management practices, HQ control, and internalization of corporate philosophy as team-level variables. Team-level variables were ground-mean centered before entering into the regression. Results showed that internalization of corporate philosophy was significantly related to in-role performance (γ= .64, $p < .001$) and knowledge sharing behaviors (γ= .69, $p < .001$), after controlling for Japanese management practices and HQ control, employee age, gender, and tenure. Regression coefficients of Japanese management practices and HQ control were nonsignificant for both in-role performance and knowledge sharing behaviors, indicating the full mediation by internalization of corporate philosophy. In all, the results from the multilevel analysis are generally consistent with the findings from the main analysis.

To check the robustness of the findings of our multi-level analysis, we directly tested the multi-level indirect effect, using the R package “mediation” (Tingley, et al., 2014). We performed the

2-2-1 mediation analysis wherein independent variable (Japanese management practices or HQ control) and mediation (internalization of corporate philosophy) variable were at the team level and a dependent variable (in-role performance or knowledge sharing behavior) is at the individual level with the quasi-Bayesian Monte Carlo method. We conducted four separate multilevel mediation analyses for Japanese management practices on in-role performance, Japanese management practices on knowledge sharing behavior, HQ control on in-role performance, and HQ control on knowledge sharing behavior, all of which are mediated by internalization of corporate philosophy. The results indicated that in the two models with Japanese management practices as independent variables, indirect effects were statistically significant at the $p < .05$ level (B = .16, $p < .05$, 95% CI [.03, .33], B = .18, $p < .01$, 95% CI [.04, .35], respectively) and in the cases of two models with HQ control as independent variables, indirect effects were significant at the $p < .10$ level (B = -.11, $p < .10$, 95% CI [-.25, .00], B = -.13, $p < .10$, 95% CI [-.25, .00], respectively). These results lend additional support to Hypothesis 4.

To test our Hypotheses 5 and 6, we conducted the moderated regression analysis using team-level variables. The results are shown in Figure 2 and Table 4. As shown, in contrast to our prediction, we found significant negative moderating effect of team boundary work on the relationship between Japanese management and internalization of corporate philosophy (γ=.-18, p<.001). The result of the simple slope analysis is shown in Figure 3. It shows the positive relationship between Japanese management and internalization of corporate philosophy is stronger when team boundary work is low (b=-.18, p<.000) rather than high (b=.12, n.s.). Therefore, Hypothesis 5 was not supported. On the other hand, we found negative significant moderating effect of team boundary work on the relationship between HQ control and internalization of corporate philosophy (γ=.-33, p<.001). The result of the simple slope analysis is shown in Figure 4. It shows the negative relationship between HQ control and internalization of corporate philosophy is stronger when team boundary work is high (b=-.16, p<.000) rather than low (b=.17, p<.01). Therefore, Hypothesis 6 was supported.

Figure 2 goes about here

Table 4 goes about here

Figure 3 goes about here

Figure 4 goes about here

DISCUSSION

The purpose of this study was to investigate the role of corporate philosophy internalization in managing foreign subsidiary employees of Japanese MNCs. Given that Japanese MNCs extensively use work teams in their operations, including their foreign operations, we investigated the factors including Japanese management practices and HQ control which influence the internalization of corporate philosophy among work teams in foreign subsidiaries and the mediating role of the corporate philosophy internalization between Japanese management practices / HQ control and foreign subsidiary employees' behaviors. Our findings also revealed the moderating effect of team boundary work on the relationship between Japanese management and HQ control on one hand and the internalization of corporate philosophy in work teams on the other hand. In previous studies, Japanese MNCs were viewed as having culturally specific management practices and emphasizing corporate philosophy as an essential foundation for managing employees. However, there is little research on identifying the factors that promote the understanding and internalizing corporate philosophy among local employees in their foreign subsidiaries. Our theoretical model and the empirical study demonstrated that promoting the internalization corporate philosophy in work teams influenced the in-

role performance of employees' in foreign subsidiaries and their knowledge sharing behaviors, and Japanese management and HQ control influenced the understanding and internalizing corporate philosophy among local employees in the Thai subsidiaries. In addition, we found that the indirect effects were statistically significant.

Although most of our hypotheses were supported, the moderating effect of the team boundary work on the effect of Japanese management, as stated in Hypothesis 5, turned out to be the opposite direction and thus was not supported. We can interpret the results of Hypothesis 5 as follows. First, we assumed that teams which often implement Japanese management practices in ordinary operations internalize corporate philosophy because they may have opportunities to interact with other teams to acquire information and knowledge from them, which in turn the teams have opportunities to consider the meaning of the information and knowledge in terms of corporate philosophy. The positive relationship between Japanese management and internalization of corporate philosophy was supported as Hypothesis 2. In contrast to our prediction, however, the result of moderated regression analysis showed a significant negative moderating effect of team boundary work on the relationship between Japanese management and internalization of corporate philosophy. Whence, we can explain that teams of foreign subsidiaries with low level of implementation of Japanese management, ordinary operations tend to be done in local ways. Thus, corporate philosophy is less apt to internalize within the teams. When team boundary work is low, that is, team boundary work does not very conduct within companies, corporate philosophy internalization promotes in teams of these subsidiaries. It means that Japanese management has a mutually complementary relationship with team boundary work.

The findings of our study contribute to the literature on international HRM. Previous studies have tended to focus on the roles of expatriates in successfully managing foreign subsidiary employees. However, owing to the geographical, cultural, and institutional distance between HQs and foreign subsidiaries, MNCs are struggling to manage local employees to achieve their corporate goals. As one solution, we proposed that the role of corporate philosophy should gain greater attention in academia (Bartlett and Ghoshal, 1989; Nohria and Ghoshal, 1994; Takao and Wang, 2012). However, there is little research on identifying the factors that promote the understanding and internalization of

corporate philosophy among the employees of foreign subsidiaries. This is the first study to examine the impact of Japanese management and HQ control on employees' in-role performance and knowledge sharing behaviors and the mediating role of corporate philosophy internalization through using Japanese MNCs data. We also revealed the moderating effect of team boundary work on the relationships between Japanese management and internalization of corporate philosophy and between HQ control and internalization of corporate philosophy at team-level. Prior studies on team boundary work have focused on demonstrating its contributions to team performance (e.g., Ancona and Caldwell, 1992), less attention has been given to understanding its mediating role in the context of international business.

Our findings also have implications for the practice of international human resource management in MNCs. First, the internalization of corporate philosophy fosters local employees' identification with their organization, which in turn, encourages local employees in foreign subsidiaries to align their attitudes and behaviors with their organization's corporate goals. Second, Japanese management promotes the internalization of corporate philosophy among foreign subsidiaries' employees while HQ control has negative impact on the internalization of corporate philosophy. In particular, our study shows that in foreign subsidiaries that implement Japanese management at the high level with under weak HQ control situations promote to internalization of corporate philosophy. Even though team boundary work is low, the Japanese management is positively related to internalization of corporate philosophy. From the result, we can suggest that managers more need to encourage their employees to learn corporate philosophy through on-the-job training and off-the-job training, which in turn influences foreign subsidiaries' performance.

The findings of our study should be viewed in light of some limitations, which provides the opportunities for future research. First, our study is based on the sample of only seven Japanese manufacturing companies in Thailand. To enhance understanding of how corporate philosophy is disseminated and internalized at MNCs' foreign subsidiaries, future research should replicate and extend our findings with different MNCs in different regions. Particularly, because our study may reflect the unique characteristics of Japanese MNCs, it will be useful to conduct further comparative

research on the role of corporate philosophy in foreign subsidiaries in Japanese, American, and European MNCs in Thailand or other countries. This will extend our understanding of how corporate philosophy can help to manage local employees in host countries. Third, because our data is essentially cross-sectional, the causal inferences from our analysis is limited. Therefore, future reserch needs to more rigorously demonstrate the mediation effects of internalizing corporate philosophy on the relationship between the environmental factors in foreign subsidiaries and employees' behaviors. In this regard, future research could utilize a longitudinal research design to enhance causal inferences.

In conclusion, the present study developed a new theoretical framework that helps to understand the management of MNC's foreign subsidiary employees by focusing on the role of internalization of corporate philosophy at the subsidiaries. By doing so, our study opened a new avenue for future research about how can MNC socialize its employees across border and what factors promote the process.

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Table 1. Descriptive statistics and correlations of key variables at individual-level in this study

	Varible	Mean	SD	1		2		3		4		5		6		7
Among individual-level variables[a]																
1	Age	33.18	5.87													
2	Gender	1.55	0.55	-0.07												
3	Tenure	5.58	4.74	0.59	***	0.06										
4	Internalization of corporate philosophy	3.39	0.79	0.12	*	0.04		0.14	**							
5	Japanese management practices	3.42	0.88	-0.05		0.14	**	-0.06		0.08						
6	HQ control	2.92	0.9	0.05		0.08		-0.05		-0.14	**	0.17	*			
7	Knowledge sharing behavior	3.3	0.86	-0.04		0.01		0.01		0.29	***	0.21	***	-0.15	*	
8	In-role performance	3.81	0.82	-0.14	**	0.07		-0.04		0.23	***	0.26	***	-0.17	***	0.67
Among group-level variables[b]																
1	Internalization of corporate philosophy	3.5	0.53	1												
2	Japanese management practices	3.5	0.74	0.35	***											
3	HQ control	2.93	0.79	-0.2	***	0.31	***									
4	Team boundary work	3.46	0.58	0.68	***	0.34	***	-0.15	**							

[a]Note. $N = 371$. *** $p < .001$,** $p < .01$, * $p < .05$

[b]Note. $N = 66$ teams. *** $p < .001$,** $p < .01$, * $p < .05$

Table 2. Results of confirmatory factor analysis and structural equation modeling

Model	Description	$\chi 2$	df	CFI	TLI	SRMR	RMSEA
Model 1	Confirmatory factor analysis (measurement model)	1151.89	454	0.81	0.80	0.08	0.09
Model 2	Confirmatory factor analysis (one-factor model)	2867.93	464	0.36	0.31	0.17	0.16
Model 3	Original model	1251.31	545	0.81	0.80	0.08	0.08
Model 4	Model 3 + Direct paths from HQcontrol and Japanese management practices to In-role performance and knowledge sharing behavior	1241.26	541	0.81	0.80	0.08	0.08

Table3. Tests of the multilevel indirect effects

Independent Variable	Mediator	Dependent Variable	B		95%CI	
					Lower	Upper
Japanese management practices	Internalization of corporate philosophy	In-role performance	0.16	*	0.03	0.33
Japanese management practices	Internalization of corporate philosophy	Knowledge sharing behavior	0.18	**	0.04	0.35
HQ control	Internalization of corporate philosophy	In-role performance	-0.11	†	-0.25	0.00
HQ control	Internalization of corporate philosophy	Knowledge sharing behavior	-0.13	†	-0.28	0.00

Note. $N = 197$. *** $p < .001$,** $p < .01$, * $p < .05$, † $p<.10$

Table4. Results of hierarchical regression analysis for team boundary work

variables	model 1	model2	model3	model 4
intercept	0.001	0.022	0.023	0.006
Japanese Management	0.104 ***		0.090 **	
HQ control		-0.068 *		0.005
Team boundary work	0.651 ***	0.694 ***	0.654 ***	0.693 ***
Japanese management * Team boundary work			-0.183 ***	
HQ control * Team boundary work				-0.333 ***
△R2	0.476 ***	0.497 ***	0.492 ***	0.550 ***

Note. $N = 66$ teams. † p<.10, * p<.05, ** $p < .01$, *** $p < .001$

Figure 1. The theoretical model

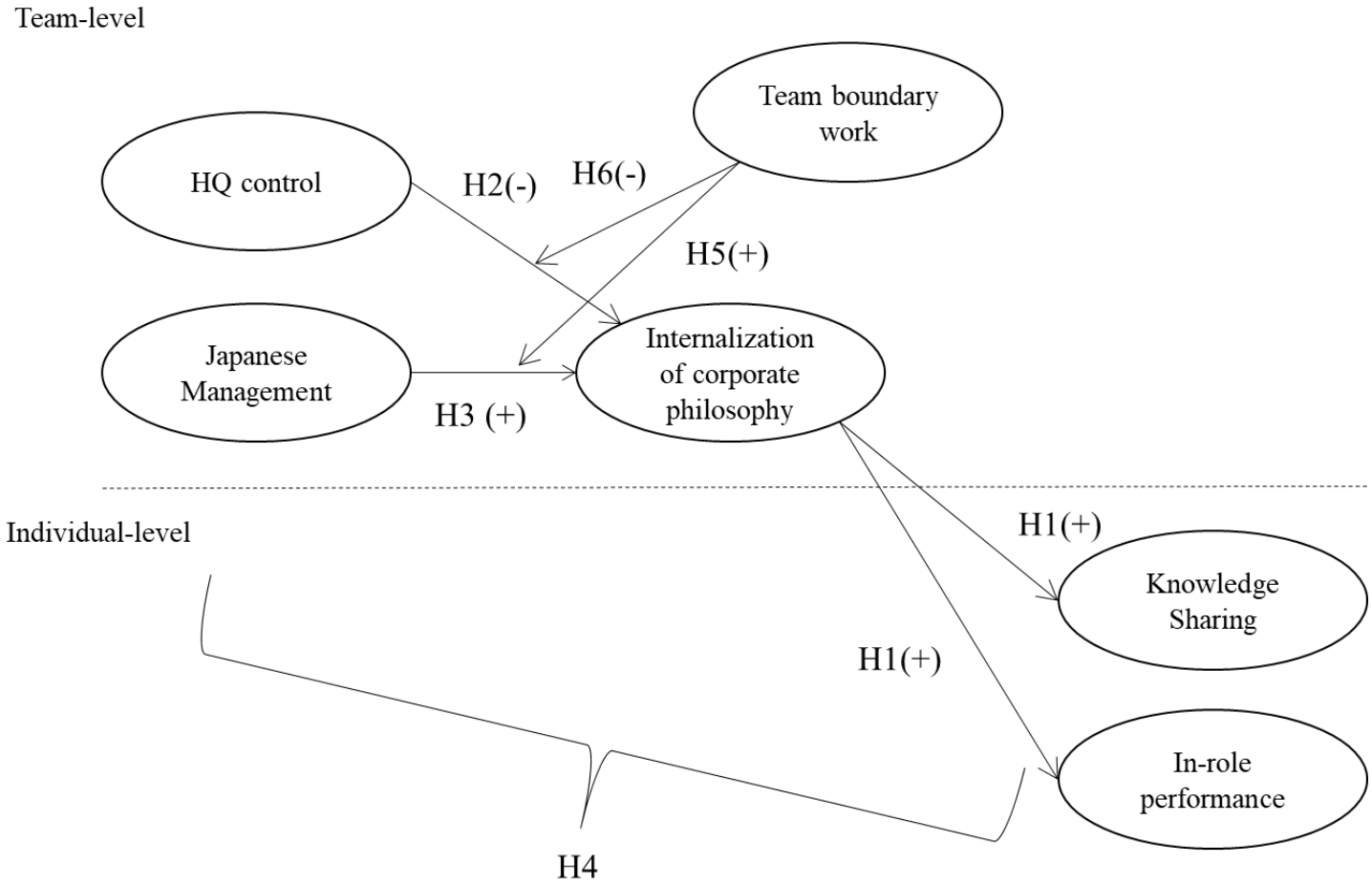
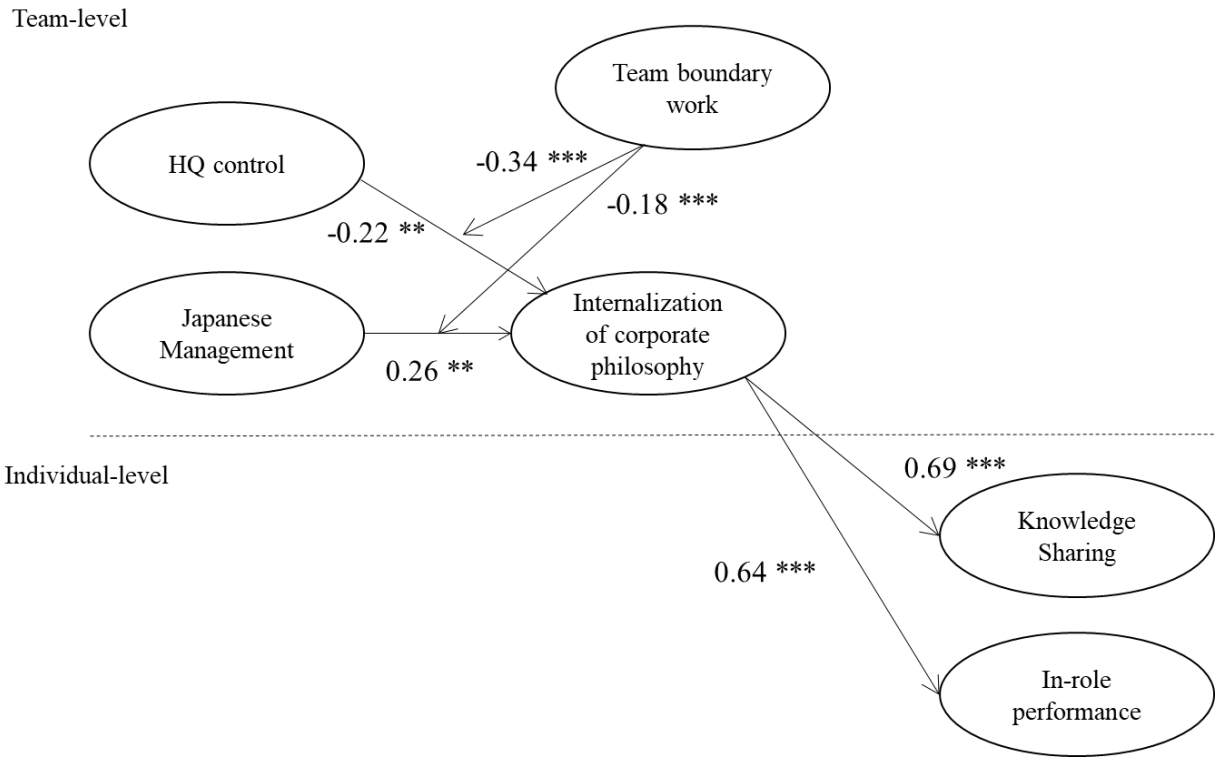


Figure 2. Multilevel analysis



Note. 371 individuals nested in 66 teams. Path coefficients are standardized. ** $p < .01$, *** $p < .001$. Paths from team boundary work to the relationship between HQ control and Japanese management on one hand and internalization of corporate philosophy on the other hand reflect the results of the moderated regression analysis.

Figure 3. Plots of interaction between Japanese management and team boundary work on internalization of corporate philosophy

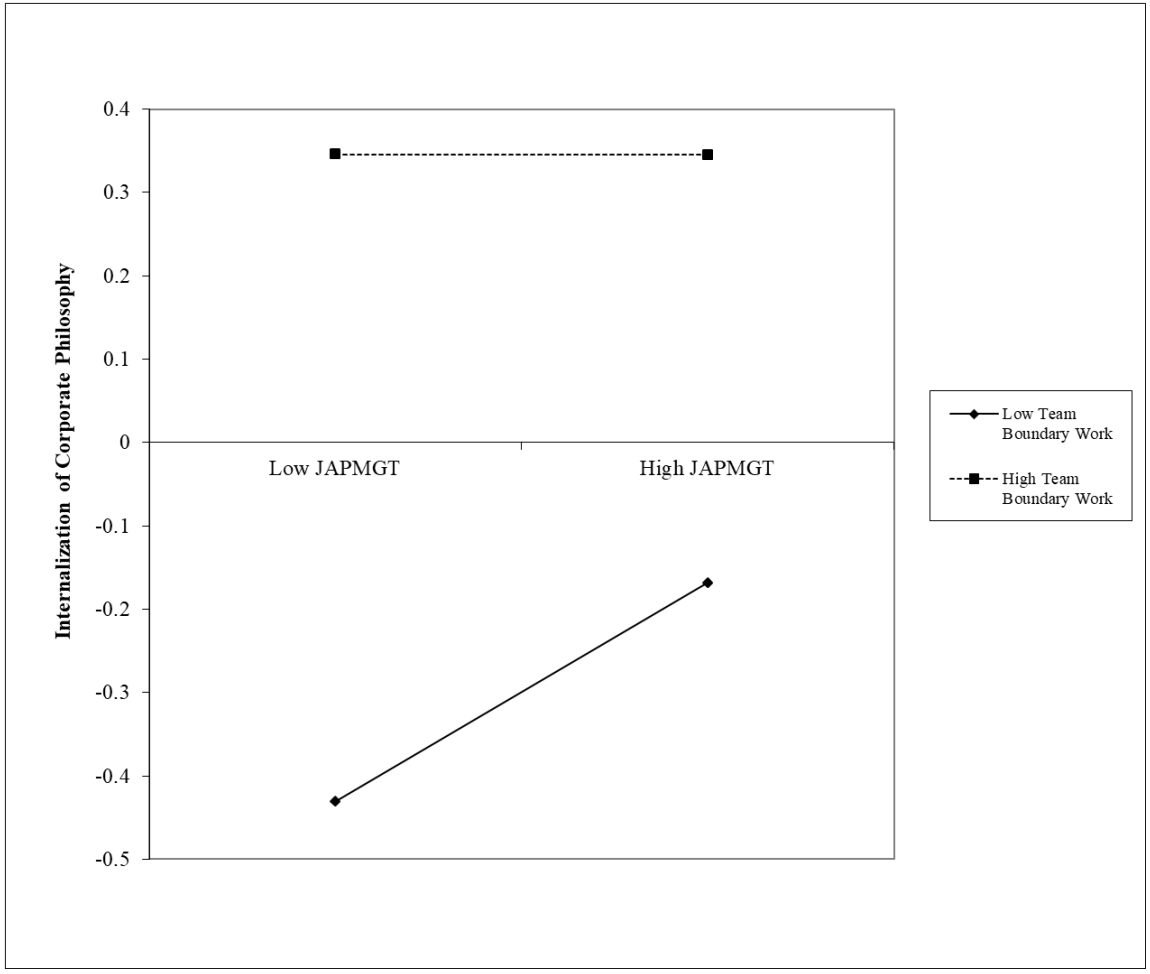


Figure 4. Plots of interaction between HQ control and team boundary work on internalization of corporate philosophy