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研究成果報告書

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研究成果の概要(和文):日本企業が、海外から新しい製品や組織内プロセスなどのイノベーションをどのように取り 入れ、日本に普及させているかを研究した。研究では1)ステータスが「高い」もしくは「低い」企業はいち早く新し いイノベーションを採用するが、ステータスが「中間」にある企業は、通常、採用が遅い、2)従来の製品、プロセス に近いイノベーションはより早く普及する、3)イノベーションが採用されない主な理由は、大きな組織変化やコスト 上昇を引き起こすという懸念による、ということがわかった。その結果、影響の少ない企業はより早く新しいイノベー ションを採用するが、大きな効果が期待される会社ほど採用が遅れることが明らかになった。

研究成果の概要(英文): I examined how Japanese companies are introducing foreign innovations from abroad. My research points to three main findings. 1) Adoption is quickest among companies with either high or low status; companies that are in the middle are usually late-adopters; 2) innovations that are more similar to existing practices are more likely to be adopted, since they are easier to translate and explain to both customers and employees; 3) a main reason that innovations are not adopted is that they might trigger large-scale organizational changes that generate significant costs. Consequently, the companies that are LEAST affected by the new innovations are those most likely to adopt them, whereas those organizations where the new innovations might generate the biggest change appear least likely to adopt them.

研究分野: Management

キーワード: Innovation Globalization Adoption Diffusion

# 1.研究開始当初の背景

This research was motivated by the realization that as Japanese companies become increasingly global, they will come into greater contact with foreign ideas, services, and innovations. Such foreign innovations may have significant benefits if transferred back to the domestic Japanese market and organization. At the same time, however, they may also be challenge disruptive and existing practices. Given the challenges Japanese companies face with both a shrinking internal market, as well as increased competition from abroad, exploring if, when and how foreign innovations are transferred back into the Japanese market is of utmost importance for understanding the future competitiveness of Japanese firms.

# 2.研究の目的

There were several specific goals with this research, listed as follows:

- 1. Understand what types of foreign innovations are being adopted by Japanese companies.
- 2. Understand the challenges Japanese firms face in introducing foreign innovations, both externally (i.e. from their customers), as well as internally (from their employees and staff)
- 3. Examine the organizational-level determinants of who adopts, and who doesn't adopt, foreign innovations.
- 4. Gain an understanding for the pattern by which foreign innovations diffuse on the industry-level.

# 3.研究の方法

To examine these questions I employed a mix of quantitative and qualitative methods. I began with a qualitative approach, using and interviews. archival data. quantitative identifv data sets to different types of foreign innovations, and the numbers of firms that had adopted them (Research Question1). In the course of this examination I identified a number of specific foreign innovations (loan syndication, foreign HR practices) that I choose to investigate in greater detail at various organizations. From these interviews and gualitative investigations gained an understanding of the L challenges firms face when trying to introduce foreign innovations (Research Question 2).

For Research Question 3, I employed event-history to a panel data of Japanese

banks to examine the diffusion of loan syndication. The panel was composed from a variety of sources, including Thomson Financial One, Nikkei Needs, and the Japan Banker's Library.

For Research Question 4 I used OLS, ordinal logistic regression, and loaistic regression to examine the organizational adopting determinants foreian of innovations within the organization (including e.g. flextime, working from home, internal venturing, etc). For this research, I relied on a dataset compiled from various years of Toyo Keizai, as well as Nikkei Needs Financial Quest.

#### 4.研究成果

The research has uncovered several insights. Rather than arrange these along the lines of the research questions, I have addressed them based on the unifying topic, since many of the results from the research questions overlap.

#### Adoption of foreign innovations: Similarity and Adaptability

While the types of foreign innovations are numerous and difficult to cover in their entirety, the research suggests that the innovations most likely to be adopted are those that are closely related to existing products and practices, or those that can easily be adopted to fit with pre-existing institutionalized behaviors.

Similarity Adoption. As an example of the first. consider the adoption of innovative foreign internal organizational practices. including the likes of flex-time. work-sharing. stock-options work-from-home, internal-venturing, and satellite offices. I conducted interviews with managers at 20 different companies, asking about their experiences in introducing these practices. I found that while many firms had made attempts at introducing practices such as flex-time, short-time work and half-day work. introducing internal attempts at venturing, work-from-home, work-sharing, stock options and satellite offices were far fewer, and seen as less popular. The reason for this seems to be that the former group can be accommodated without making too many changes to traditional Japanese working practices, including for example the strong norms of sharing tacit information, seniority-based hierarchy and on-the-job training. Flextime, for example, allows employees to come in later

or leave work earlier, yet they are still present throughout the day and take an active part in their group or departments work; in this way, the pattern of their activities (i.e. the number of hours they are in the office and working) is not unlike sales people who are frequently coming in and out of the office during the day. Similarly, half-day work or short-term work are similar to the use of contract employees, hence this too seems to have been easier for Japanese companies to adopt.

By contrast, practices that were less popular for adoption all appear to challenge existing practices, in one way or another. For example, many of these foreign innovations would result in employees being absent from the office: this is for example the case of working from home or having an off-premises satellite office. Being absent from the office was seen as problematic, both by the HR division, and the employees themselves. For HR managers, it was unclear how absent individuals might be monitored and trained effectively. For the employees, being absent from the office was similarly problematic because they feared they would not be privy to important communication and information. Moreover, they feared that working from home or a distant office might create *meiwaku* for their colleagues, and that this would have a negative effect both their relationships on to work-colleagues, as well as their own career prospects in general.

Other practices seem to have been opposed because they seen to promote uneven work and benefits, which was often seen as running against traditional notions of equality, both and seniority-based hierarchy. For example, interviewees viewed stock options and internal with greater skepticism, venturing believing that these foreign practices did not fit the Japanese way of working, and that they would sow discord by creating unequal pay and opportunities. Similarly, work-sharing was opposed because employees did not want to create meiwaku for others (and because employees also did not want to take the extra burden of doing their colleagues ' duties).

The qualitative interviews hence suggest that practices that were similar - or which fit - with existing ways of working were more likely to be adopted. I examined these claims using multi-year data from the Toyo Keizai CSR survey (specifically, the years 2004-2010, and 2014). The data indicates that by 2014, the adoption of flex-time, short-term work, and half-day working increments had been adopted by 54%, 86% and 90% of the surveyed firms, respectively. By contrast, adoption was much lower for shared work (5%), work from home (17%), satellite offices (9%), internal venturing (11%), and stock option programs (30%).

Adaptability adoption. In addition to similarity, the adaptability of the underlying practice also appears to make it more likely to be adapted by companies. In other words, if the underlying practice itself can be changed or transformed to such an extent that it fits with prevailing forms, then its adoption is more likely. A particularly telling case of this appeared with loan syndication, a foreign lending practice which Japanese bank introduced into the domestic Japanese market in the late 1990s. Although foreign banks initially introduced this practice in the mid 1990s, it was largely ignored and opposed by domestic customers who viewed it as too dissimilar and radically different from the traditional main-bank system's lending format. When Japanese banks introduced the practice, however, they successfully reframed its contents and meaning, to make it look and sound like traditional lending practices. For example, proponents defined the new practice as a key of "indirect market financing" to emphasize that it was related to the indirect closelv bank-financing of the main-bank system. They also introduced regulations and changes to adapt the new practice. Following these changes, the foreign practice became more acceptable to customers.

# Opposition to foreign innovations

As the preceding discussion suggests, the introduction of foreign innovations is often opposed, both internally and externally. The research suggests there are several reasons for this. Externally, foreign innovations may be viewed with suspicion and uncertainty by customers, suppliers, and regulators, who believe they may be either disruptive to pre-existing practices, or fail to comply with existing official rules and/or norms and cultures. The above example of loan syndication was a typical example, as both suppliers (i.e. other banks) and customers (i.e. corporations seeking financing) viewed the practice with hostility. Suppliers for example thought that they were being tricked into lending to bad

companies and sometimes refused invitations to take part in syndications; customers believed syndicated lending meant their traditional relationships to their main banks were threatened. This opposition served as a very real blockage to the adoption and introduction of the foreign innovation.

Internally, new practices may be opposed by employees due to the not-invented-here syndrome, and because they are seen as disruptive. Notably, such opposition may not be uniform across the company but depending on employee rather vary, position, status, and age-group. In my interviews, I found for example that organizational innovations like flex-time. work-from-home and work-sharing had significant support among employees in their 30s and 40s, i.e. those with young families. Conversely, employees in their 20s did not have strong opinions one way (overall), while older or another employees staunchly opposed the new practices as they saw them as a threat to the company's existing way of doing business.

Among managers, adoption of foreign innovations was seen as risky because it incur significant costs miaht and disadvantages for the firm. In my interviews, I found for example that senior banking managers opposed loan syndication on the grounds that it meant they would be sharing the bank's customer relationships with competitors, thereby potentially losing an important source of competitive advantage. In the case of novel foreign organizational practices, managers feared the new innovations might raise costs, particularly if they were highly successful and served to trigger large-scale organizational change. For example, if stock option programs were widely adopted, this would entail significantly more paperwork for the firm. Wide-scale internal adoption of flex-time or work-from-home might similarly disrupt the working flow of the organization as a whole. For these managers, adoption of foreign innovations itself was seen as positive because it could bring prestige, legitimacv and potentially even competitive advantage; however, this was only the case if it did not trigger significant change-related costs.

In sum, opposition to foreign innovations was apparent both externally (among customers) and internally (among employees). In both of these groups, the opposition was motivated by the perceived uncertainty and illegitimacy of the new practice, as well as the potential costs it might generate.

Organizational determinants of adoption Given this opposition to foreign innovation, what kinds of firms were most likely to adopt foreign practices? I examined these questions using a dataset composed of multiple years of the Toyo Keizai CSR Survey, as well as firm-level data from Nikkei NEEDS Financial Quest. Drawing on the qualitative examinations, I proposed and tested several hypotheses. As noted above, findings from the interviews suggest managers may be concerned with costs generated by new foreign practices. This, in turn, would suggest that companies most likely to adopt a foreign practice are those who have the leeway and slack to cover any organizational costs. This is most likely the case for large firms, as well as those with profitability. Formally, I thus propose:

H1: Profitability will be positively related to the adoption of foreign practices

As also noted above, foreign innovations may also be opposed because they are viewed as illegitimate, i.e. employees and managers feel the novel innovation breaches established routines and taken-for-granted ways of behaving. Such perceptions of illegitimacy may be particularly prevalent in older firms, routines where and practices are well-established through long histories. By contrast, younger and newly-established firms may be more open to the notion of foreign organizational practices. Formally I thus propose:

#### H2: Company age will be negatively related to the adoption of foreign innovations

Age may also have an impact on individual employees' perceptions and views about foreign practices. Older workers who are familiar with prevailing practices and may have a difficult time changing their behaviors may be less inclined to support the introduction of foreign innovations, as compared to workers who have been in the company fewer years. This is partially because older workers have had a longer time to become institutionalized into existing practices, but also because older workers may see fewer benefits from flex-time. innovations such as work-from-home, and internal venturing. The interviews provide some insight into this. Several informants noted for example that many senior managers were less supportive and positive towards the introduction of new innovations. This has implications for adoption because it suggests that the greater the number of employees over 50 in an organization, the more opposition there will be to adopting a foreign innovation. Formally we thus have:

H3: The proportion of employees aged 50 or above will have a negative relationship to adoption of foreign innovations.

In addition to age, the gender and identity of employees also seems to matter for the willingness to adopt new foreign innovations and organizational practices. Specifically, the qualitative interviews indicated that women were overall positive towards the adoption of the new practices, and also pushed for their inclusion. Formally I thus propose:

H4: The ratio of women in senior positions will be positively related to the adoption of foreign innovations

I used ordinal OLS to test the above hypotheses. Using the count of adoptions of various innovations as the dependent variable, I examined the impact of operating profit, firm age, the proportion of employees above 50, and the proportion of senior female executives, on the adoption of foreign innovations. Based on a sample of 460 firms, I found weak support for H1 (operating profit was significant at the 5% level), strong support for H2 (age had the expected negative effect, significant at the 1% level), as well as strong support for H3 and H4 (the ratio of employees over 60 was negative and significant at the 1% level; the ratio of top positions was women in also significant at the 1% level, with the expected positive sign).

# Diffusion of foreign innovations in industries

Finally, the adoption of foreign innovations also potentially depends on the organization's standing in the overall environment. From the qualitative interviews, it emerged clearly that the willingness to adopt depended on social pressures, and the expectations of customers. In particular, highly regarded firms, with significant clout and status, were often positive to the notion of adoption. In turn, weak or low-status firms, with limited networks, were also willing to adopt new practices, as they felt they had little to lose by doing so. This suggests Japanese companies may middle-status-conformity follow the theory, which suggests the propensity to adopt new practices has a U-shaped relationship with status and social position (i.e. those with medium-status are least inclined to adopt new practices). Formally, we thus have:

*H5: The adoption of foreign innovation has an inverted U-shaped relationship* 

I tested the above hypotheses using data on the adoption of loan syndication among Japanese banks. The data set was compiled from Nikkei NEEDS Financial Quest and the Thomson Financial ONE Database. Controlling for age, sales and profitability, I found strong support (significant at the 1% level) for the U-shaped relationship between adoption and status.

# 5. 主な発表論文等

- [学会発表](計 3 件)
- 1. <u>Jesper Edman</u>, Cementing Status: Age and the Adoption of Non-Conformist Innovations in the Japanese Banking Sector. Strategic Management Society Sydney Special Conference. December 8. 2014, Sydney Australia
- 2. <u>Jesper Edman</u>, Status, Tenure and the Adoption of New Practices. Academy of Management Annual Conference. August 12. 2013, Florida U.S.A.

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6.研究組織
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