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Organizational Field Comprising Competitive Relationships: The Case of the "Galapagos Syndrome" in the Japanese Mobile Phone Industry

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Abstract

In this paper, we discuss the "Galapagos syndrome" in the Japanese mobile phone industry from the perspective of organizational institutionalism. In general, the Galapagos syndrome emerged because the Japanese companies ignored the international standards and focused on domestic markets for product development. Organizational institutionalism explains the diffusions of technology-related international standards to achieve social legitimacy, rather than the mere compliance with technical requirements. However, Japanese firms were active in obtaining international standards. To explain this situation, we reviewed the studies on diffusion in organizational institutionalism. During the review process, there was confusion with the idea of isomorphism and this led to two ways of understanding it: isomorphism as homogeneity and as the origin of competition. By revisiting the pioneering theory of organizational institutionalism by Weber, we can explain the Galapagos syndrome on the basis of the latter understanding of isomorphism; that is, the incorporation of international standards creates competitive relationships between the Japanese firms. By rearranging the logical implications to explain isomorphism and standards, we can conclude that the Galapagos syndrome results from differentiated practices related to the incorporation of international standards.

Key words: *Organizational Institutionalism, Isomorphism, Galapagos, Standards, Mobile Phone.*

1. Introduction

The emergence of the "Galapagos syndrome" in the Japanese electronics industry can be attributed to the ignorance of international standards and preoccupation with the domestic market for product development by technologically proficient Japanese companies. In the mobile phone industry, which is often referred to as a typical example of the Galapagos syndrome, telecom carriers have engaged in exclusive product development competitions involving mobile phone manufacturers and users. As a result, a unique market has been created with a variety of mobile phones equipped with sophisticated services. Unfortunately, in spite of high-end mobile phones and advanced technologies, it has been difficult to expand their consumer base in the global market because of the ignorance of international standards by Japanese companies.

Organizational institutionalism suggests that obtaining international standards by organizations is necessary for achieving social legitimacy, rather than the mere compliance with technical requirements. NTT DoCoMo, a leading telecom carrier in Japan, was the first telecom carrier to obtain the international standard for telecommunications in the world. Moreover, the escalation of exclusive product development competitions, involving mobile phone manufacturers and the fastest Japanese growing market with unique preferences, was after the establishment of international standards for telecommunications. On the basis of these facts, it is not logical to assert that Japanese companies had completely ignored international standards for telecommunications.

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Therefore, in this paper, we start with a brief review of previous studies on isomorphism, a concept that explains the organizational actions for obtaining international standards such as ISO 9000, within the conceptual framework of organizational institutionalism. After literature review, we explore the logic behind the emergence of the Galapagos syndrome while focusing on the influence of the international standards for telecommunications in the Japanese mobile phone industry.

2. Logic of differentiated practices by the incorporation of international standards

According to organizational institutionalism, obtaining an international standard such as ISO 9000 is necessary in order to achieve social legitimacy for companies. For instance, Delmas ([1]; [2]) shows that "companies obtain ISO 14001 as it helps to create and maintain favorable institutions." In Europe, the governments have actively supported companies' efforts in environmental management. Therefore, European organizations actively aim to obtain ISO 14001 in order to achieve social legitimacy through their respective government's support. Guler et al. [3] shows that an organization that engages in business with the European organizations has a strong tendency to obtain ISO 9000. In Europe, ISO 9000 has been widely obtained. Obtaining ISO 9000 becomes a means for demonstrating social legitimacy while engaging in business with the European organizations. Consequently, we see an increase in the number of organizations that incorporate the formal organizational forms and procedures based on ISO 9000. Organizational institutionalism explains such a situation with the concept of isomorphism.

However, contrasting positions have been observed in previous studies on isomorphism. The first one is related to the discussion of the homogenization of corporate strategy by isomorphism (e.g., [4]; [5]; and [6]). Fligstein [4] points out that there was an increase in the number of companies who incorporated the multidivisional form in the United States in the early 1900s. This was because they believed that this form was effective by considering examples of successful companies like DuPont and General Motors, who had incorporated the multi-divisional form (pp. 380–382). According to Takai [5], such imitated organizational behaviors produce a dominant logic in the industry. As a result, the more the organizations incorporate a certain organizational form, the more it becomes taken -for-granted in the industry. In other words, a proliferation of the dominant logic in the industry brings companies into the state of cognitive homogenization. Therefore, isomorphism leads to a lack of diversity in corporate strategy (pp. 82–83).

However, this approach cannot explain the Galapagos syndrome in the Japanese mobile phone industry. If the incorporation of international standards would have led to homogenization, product development competitions would have never occurred. With regard to the first position on isomorphism, organizational intuitionalism would have to explain the irrational behavior of organizations, but it was pointed out that "it does not make sense unless there is possibility to explain the strategic environmental adaptation" [7]. In other words, the theoretical framework for capturing the non-competitive homogenization of companies should be questioned and resulting implications could be drawn [8].

The second position, in contrast with the first position, deals with the creation of a competitive relationship by isomorphism ([9]; [10]). At a dizzying pace of change, deciphering the actions of others becomes difficult and non-compliance of the established rules appears. As a result, unexpected uncertainties and constraints often emerge. In such a precarious situation, it is important that organizations construct forms to gain competitive advantage over other organizations ([11]; [12]). For instance, Hwang and Powell [10] use isomorphism to describe competitive relationship of experts. In modern society, experts like doctors or lawyers establish a position of superiority with their specialized knowledge and techniques. Using these skills, experts can gain a competitive advantage over experts in other professions. Moreover, with specialization, experts in each profession need to construct their own forms to gain a competitive advantage that helps to retain their position as experts (pp. 183–195). Thus, the dominant competitive relationships can be outlined through constructing variety of forms to gain competitive advantage ([13]; [11]; and [14]).

A contrasting position in the same concept may lead to an initial state of confusion. However, homogenization is not the same as isomorphism ([15]; [12]). By revisiting the pioneering theory of organizational institutionalism by Weber, it can be inferred that the second position is supported by relevant implications.

In Weber's idea, it is particularly important a dominant mode in the modern, "technical rationality." Generally, technical rationality is considered to exclude values. Therefore, people can act rationally without basing their decisions on individual values while considering the means-end relationships. However, technical rationality does not involve the exclusion of values ([16]; [17]; and [18]).

According to Weber [19], technical rationality is the absolute criteria of values in which people believe (pp. 63-205). In other words, people believe that the most rational way to attain their purpose is by using technical calculations and procedures. Nevertheless, technical rationality does not dictate detailed and specific actions. It suggests that in order to act specifically in a situation, the action has to be based on each practical consideration ([20]). As a result, organizations start acting differently, and this elucidates the differences in organizational behavior during isomorphism. In addition, technical rationality is used while interpreting the expected actions of other people or organizations. By translating the actions of other people in a technically rationale manner, people develop an individualized form that enables them to gain competitive advantage. Applying this rhetoric to organizations, isomorphism produces an organizational field that creates competitive relationships [13].

On the basis of the above logic, the Galapagos syndrome today can also be considered to have emerged under international standards. By obtaining international standards, organizations achieve social legitimacy and can expand their businesses strategically. If more organizations incorporate international standards, more business strategies are created through new forms in those organizations. Associated with the forms and strategies, a variety of relationships such as conflict and cooperation get established.

3. The Galapagos syndrome in the Japanese mobile phone industry

In Japan, there are three telecom carriers: NTT DoCoMo, KDDI, and J-Phone. However, during the embryonic era of mobile phones, the industry was run by a state-owned enterprise, Nippon Telegraph and Telephone Corporation. After privatization in 1985 (the liberalization of telecommunications), other organizations that entered the mobile phone industry were: IDO in 1988, DDI-Cellular in 1989, and J-Phone and TU-KA in 1994. This period (1979–1990), witnessed the use of the so-called first generation of mobile phones.

However, even after the liberalization, NTT (and its subsidiary, NTT DoCoMo), which has the government as a major shareholder, maintained its dominant position and controlled variety of interests related to technological development. NTT DoCoMo's aggressive capital investment was 300 billion yen per year, and it had superior technology and infrastructure than competing telecom carriers [21]. Therefore, other telecom carriers who initially incorporated other standards had to incorporate the standards developed by NTT. NTT standards became the de facto standards for the first generation mobile phone industry in Japan. This situation continued in the second generation (1990–circa 1999), and other telecom carriers chose to incorporate a new telecommunications standard called Personal Digital Cellular (PDC) outlined by NTT DoCoMo, rather than fighting a losing battle. As a result, NTT DoCoMo's telecommunications standard was considered as the unified second-generation standard in Japan.

In the later second generation phase, NTT DoCoMo proceeded to incorporate international standards in its business for global expansion in the upcoming third generation of the mobile phones. It proposed a mutual establishment of the international standards for telecommunications to European organizations. NTT DoCoMo provided wireless technology, which had been successfully demonstrated in Japan, and the second generation of the European Union's unified telecommunication system, Global System for Mobile Communications (GSM), used for the base of the relay-switched network. With this proposition, Japan and the European Union announced the world's first telecommunications standard for the upcoming third generation Wideband Code Division Multiple Access (W-CDMA) as the unified telecommunications standard. However, other countries with different interests disagreed with Japan's and the European Union's plan to introduce their standard at the international level. The United States proposed its own telecommunication system, Code Division Multiple Access 2000 (CDMA 2000), as an international standard. Furthermore, in conjunction with the failure of unifying with the U.S. proposal, China had agreed with Japan and Europe, but it then proposed its own telecommunications system during the final phase; Germany adopted the same strategy of China [21]. In November 1999, the International Telecommunication Union (ITU) certified all five proposals as the

international standards for telecommunications for the third generation (1999–present). Consequently, W-CDMA became an international standard, but not a unified standard as originally intended. Therefore, NTT DoCoMo failed in its attempt to lead and establish the international standard that governs the international markets, just like its standard that governed the domestic market.

3.1. Differentiating the corporate strategies of the domestic telecom carriers

However, the establishment of various international standards in the third generation, resulting from the NTT DoCoMo's overseas advancement, gave choices to domestic telecom carriers. This was an opportunity to reverse the dominance in the domestic market, as the telecom carriers had to incorporate NTT DoCoMo's telecommunications standards earlier. This opportunity implied that it was not necessary to incorporate the same telecommunications standard as that outlined by NTT DoCoMo. There were other options related to telecommunications standards that were as competitive as W-CDMA. Domestic telecom carriers had the opportunity to reverse the dominance of NTT DoCoMo in the market by incorporating different international standards.

KDDI, in the second position, obtained CDMA 2000, which was the international standard of telecommunications developed by the United States. By obtaining CDMA 2000, KDDI was the first domestic telecom carrier to provide the international roaming service (mainly for users traveling to the U.S.) ([22]; [23]). In addition, KDDI started a new service called "Chakuuta" (providing a melody or music on the mobile phone) with excellent sound quality and high-speed data communications as advanced features of CDMA 2000. Furthermore, KDDI began to lead the implementation of various services such as the introduction of flat-rate price and price reduction of the telecommunications service, which has become possible by incorporating the different international standards. In fact, these approaches made KDDI's market share larger [24].

J-Phone incorporated the W-CDMA as well as the NTT DoCoMo standards. However, in spite of the incorporation of W-CDMA, it didn't mean that J-Phone remained subservient to NTT DoCoMo. With worsening finances, J-Phone was not in a position to invest capital in third generation mobile services, while NTT DoCoMo and KDDI initiated such capital investments. By obtaining the international standard though, J-Phone resolved its financial crisis by collaborating with a foreign telecommunications company, Vodafone, which was willing to enter the Japanese market ([25]; [26]). J-Phone succeeded in raising capital for investments and provided a unified specification mobile phone "converged devices" in Japan and Europe by collaborating with Vodafone [27]. An important point to be noted here concerns the opportunity to expand corporate strategies on the basis of practical considerations, because there were various international standards available as choices for expansion. KDDI incorporated the international standard that differed from NTT DoCoMo and aimed at differentiating its services. J-Phone found a solution to its financial crisis by collaborating with Vodafone. Therefore, KDDI and J-Phone gained influence to reverse the dominant market position of NTT DoCoMo, which had a huge technological advantage in Japan and governed the market with its own telecommunications standard.

3.2. The Galapagos syndrome as an organizational field between the telecom carriers, mobile phone manufacturers, and users

Incorporating the international standards differentiated the corporate strategies of local telecom carriers from their competitors on the basis of practical considerations. Subsequently, it was important to the telecom carriers to create isomorphism under the obtained international standard against competing carriers (especially NTT DoCoMo).

In order to achieve the above objective, it was necessary to involve the mobile phone manufacturers and users. The main source of the telecom carriers' revenue is toll revenues, and therefore, increasing the number of users is a key for survival. Accordingly, the telecom carriers need to provide attractive mobile phones and services to users. As a result, telecom carriers have become competitive by involving mobile phone manufacturers and focusing on the development of mobile phones and services with emphasis on usability.

In this regard, telecom carriers support the mobile phone manufactures in technology development and prepare their sales incentive plan accordingly. This relationship offers some individual merits to the telecom carriers and mobile phone manufacturers.

First, for the telecom carriers, investing in various mobile phone manufacturers and letting them develop some attractive mobile phones for users, rather than doing it themselves, can lead to an increase in the

number of users and toll revenues. Thus, the telecom carriers invest and incorporate the technology developed in collaboration with the mobile phone manufacturers. Telecom carriers have placed a different representative for each mobile phone manufacturer and have requested the manufacturers to customize the product line according to each carrier. In addition, they have placed product line developers in order to prevent the disclosure of their information and technology to competitors [21].

Second, mobile phone manufacturers need to create different mobile phones for each telecom carrier. This offers some merits to the mobile phone manufacturers because it reduces the enormous cost in the development and manufacturing of mobile phones, owing to monetary and technical assistance from telecom carriers. In addition to the development and manufacturing costs being covered partly by the telecom carrier, the sales incentive plan also works effectively to absorb the difference between the manufacturing cost and selling price. By manufacturing mobile phones according to the requirements of the telecom carriers, manufacturers could easily make the profit plan, since the telecom carriers purchased all mobile phones.

Consequently, an interdependent relationship was developed between the manufacturer and telecom carriers and the development race began with this relationship. Some mobile phone manufacturers, who had oriented to the overseas markets, transformed into strong domestic market-oriented players.

Moreover, the relationship between the telecom carriers and mobile phone manufacturers benefits not only each entity but also the users of those sophisticated mobile phones and services. As a result of the relationship between the telecom carriers, who invest in technology, and mobile phone manufacturers, who develop and manufacture mobile phones, users can now obtain a variety of sophisticated mobile phones at a low price. Users of such sophisticated mobile phones and services are now seeking additional functions in mobile phones. The telecom carriers need to meet the demands of these users in order to attract and retain them, and not lose their market share to competitors. Mobile phone manufacturers respond to this situation by receiving support from the telecom carriers. While responding to these demands, various features that were not considered for the primary purpose of mobile communication, such as electronic payment, infrared communication, and some entertainment features such as games and video, have been included in mobile phones.

As seen above, product development competitions continue to intensify with mixed, different interests of telecom carriers, mobile phone manufacturers, and mobile phone users. As a result of this cycle, an organizational field comprising competitive relationships between telecom carriers, mobile phone manufacturers, and mobile phone users has developed. This is called the “Galapagos syndrome” of the recent mobile phone industry in Japan, which is a unique industry that involves the manufacturing and selling of various advanced mobile phones.

4. Conclusion

Through the lens of organizational institutionalism, we discussed the logic behind the development of the Galapagos syndrome while focusing on the influence of technology-related international standards in the Japanese mobile phone industry. The incorporation of international standards led to diversification in the telecom carriers’ corporate strategies; it emphasized the role of mobile phone manufacturers and the needs of the users’ in creating individual competitive advantageous forms. In other words, the Galapagos syndrome developed because of an organizational field comprising competitive relationships between the telecom carriers, mobile phone manufacturers, and mobile phone users in Japan.

In this paper, we also discuss two aspects resulting from the above understanding of the Galapagos syndrome. First, we explain why the Galapagos syndrome emerged only in Japan. This was because the relationship between the Japanese telecom carriers, mobile phone manufacturers, and mobile phone users differs from those in other countries. Second, the Galapagos syndrome developed because the initially domestic market-oriented strategy is now linked to the international market. Mobile phone manufacturers, who previously relied on telecom carriers, have taken up the challenge to develop their own devices. Mobile phone users, who are accustomed to sophisticated mobile phones, are now being targeted by foreign mobile phone manufacturers producing smartphones. Considering these developments, telecom carriers are trying to re-enter the foreign markets with innovative corporate strategies.

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