

Chapter 2

Service Innovation in Japan and the Service-Dominant Logic

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2.1 Service Innovation and the Service-Dominant Logic

In the Japanese economy of the glorious 1970s, the secondary industry accounted for nearly 40 % of GDP. Today, the manufacturing and construction industry's share in GDP has fallen below 25 %, with close to 75 % of Japan's GDP accounted for by the broadly defined services industry, which covers services for consumers, businesses, and the public sector as well as infrastructure services such as electric power, gas, and transportation. It is apparent that innovation of the services industry is crucial for revitalizing the Japanese economy, as the share of the manufacturing industry is declining steadily.

Under the circumstances, Japan began to address service innovation at the national level in July 2006, when the government announced the Economic Growth Strategy Outline. The Strategy Outline called for a drastic enhancement of productivity of the services industry as well as for the establishment of an organization by industry, academia, and the government designed to support productivity enhancement of the services industry.

In the following year of 2007, a new organization, the Service Productivity & Innovation for Growth (SPRING) was established by industry and academia backed by the Ministry of Economy, Trade and Industry (METI) with the support of five other ministries. It launched specific activities, including provisions of the management innovation tools and information useful to enhance productivity of the services industry, the creation of opportunities for industry-academia-government cooperation, and the support for independent efforts by industry sectors and individual companies.

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In 2008, the Center for Service Engineering Research was established within the National Institute of Advanced Industrial Science and Technology affiliated with the METI to start a variety of research on engineering covering services. For the service engineering cycle of observation, analysis, design and application, the Center has developed various engineering methodologies such as the cognitive chrono-ethnography technology, the ubiquitous sensing technology, and the service process CAD technology.

Further in 2010, the Japan Science and Technology Agency affiliated with the Ministry of Education, Culture, Sports, Science, and Technology launched the Service Science, Solutions and Foundation Integrated Research Program (S3FIRE). The program has publicly invited applications each year, and sponsored four to five research and development projects with three year terms. As an indication of strong interest in the field, over 150 applications were filed in the first year.

As described above, efforts toward service innovation in Japan is proceeding with an inductive evolution beginning with the sharing of specific best practices in the industry followed by the engineering approach and then service science initiatives.

In other words, Japan is progressing from the specifics to abstraction, but this process has over time to transform itself into the one that marks the beginning of a journey from abstraction to the specifics where abstract service science provides service engineering with the theoretical foundation and makes the scientific and engineering approach makes service innovation possible in the services industry.

In 2004, the U.S. Council on Competitiveness published the report entitled, “Innovate America: Thriving in a World of Challenge and Change” (also known as the Palmisano report), touched off a global boom of service science. It was also the year when Vargo and Lusch, who brought a revolutionary change to marketing science, released a historic paper in which they proposed the service-dominant logic (Vargo and Lusch 2004). This innovative idea that considers all the economies as the service economy and regards services as the process of co-creation of customer value has before long been associated with service science, and service-dominant logic has been recognized as a potential philosophical foundation from which a science of service and the investigation of service system can be built (Maglio and Spohrer 2007).

The importance of service-dominant logic has begun to be recognized in Japan’s industrial circle only recently. The publication in Japanese that provided the first comprehensive introduction to the service-dominant logic in Japan from the standpoint of marketing science was titled “Service-Dominant Logic: A New Perspective of Marketing Research” (translated), was published in March 2010. Then, on November 18, 2010, the Nihon Keizai Shimbun, read widely by Japanese business people, published an article introducing service-dominant logic, contributed by Associate Professor Yoshinori Fujikawa of Hitotsubashi University.

As the understanding of this concept began to spread within the industrial circle, it has sent and is still sending shock waves to some sectors of Japan’s industry and academia, which have long regarded Japan only as a manufacturing country where the manufacturing industry is driving the entire economy.

This paper intends to obtain some suggestions as to the direction of research of service science, examining what implications the paradigm of service-dominant logic has for the promotion of service innovation, an area of primary concern of the Japanese industrial circle by analyzing several best practices of service innovation in Japan, utilizing the conceptual framework introducing the notion of value co-creation to the framework of service blueprinting.

2.2 Japan 300 High-Service Award: Best Practices of Service Innovation in Japan

In the twentieth century, Japan intently pursued the establishment of a group of high-technology industries as the sophisticated advanced technology industry from the 1970s through the 1980s, making the nation the second largest economy in the world in that process. SPRING believes that in the twenty-first century, Japan should seek to establish a group of high-service industries as the sophisticated advanced services industry. Efforts to radically enhance productivity of the services industry, which accounts for three quaters of GDP, to create what deserves to be called high services and spread the wave of innovation to the entire industry is of vital importance not only for individual service companies but also for the growth strategy for the Japanese economy as a whole. According to SPRING, Japan should create high-service industries with the same ardent passion that used to create high-technology industries in the twentieth century.

In line with this philosophy, the first effort SPRING took up in promoting service innovation in Japan was the “Japan 300 High-Service Award” project to recognize and commend about 300 service companies and organizations with the best practices of service innovation representative of the Japanese economy.

Service innovation of “Japan 300 High-Service Award” recipients can be classified into the following six categories: (1) scientific and engineering approach; (2) improvement of the service process; (3) increasing value-added services; (4) human resources development; (5) regional market development; and (6) globalization.

Excluding categories (5) and (6), which are essentially designed for market expansions overseas or in various regions in Japan, a total of 236 “Japan 300 High-Service Award” recipients in categories (1) through (4) are useful case examples in the consideration of relationship between service innovation and the service-dominant logic.

The scientific and engineering approach in category (1) is designed to utilize information technology (IT) and introduce the scientific analytical method and the engineering process design approach to the management of service companies previously done by relying on hunch and experiences. A typical case example in this field is Kura Corporation, which operates a chain of “kaiten (revolving)” sushi restaurants, “Mutenka (additive-free) Kurazushi,” which do not use any chemical seasonings, artificial sweeteners, artificial colorings, or artificial preservatives. In order to guarantee the safety and security of food, Kurazushi introduced, for the first time in the world, the “time limit management system” to manage invisible freshness of

food and established a system where all sushi rotating on conveyor belts is discarded after 55 min. All sushi plates carry QR codes and immediately after finished plates are thrown into slots, the quantity of sushi items and kinds are counted together with seat information and conveyed to the kitchen. Kurazushi accumulated data on the relationships between attributes of customers who visit sushi restaurants and sushi items they eat for 5 years for a thorough analysis of their preferences of sushi items according to combinations of visit dates, time zones, composition of guests, that is, whether they come as families, couples or singles, gender and age groups. As soon as guests are seated, attribute information on guests entered to the wireless devices by attendants is shared by the kitchen and arrangements are made to put sushi plates with an optimal combination of items on the conveyor belt.

The improvement of the service process in category (2) is designed to eliminate bottlenecks that hinder the realization of customers' value through a thorough analysis of the process of providing services. A good example is Kagaya, a luxury "ryokan" Japanese inn on the Noto Peninsula on the Sea of Japan coast. Kagaya is one of Japan's first-class hot spring inns known for its very Japanese sukiya-style building facilities and sophisticated services. In addition to more than two hundreds of guest rooms, Kagaya has a number of large and small banquet halls, multiple conference rooms, and a convention hall where a party for up to 1500 guests can be held, requiring the constant delivery of large quantities of dishes. Dishes for overnight guests are first carried from the kitchen to service rooms of each floor and then guest room attendants bring them from there to guest rooms, covering the distance of up to several hundred meters. While dinnertime is the most important hour for Kagaya when highly trained attendants offer the best hospitality often quoted as "omotenashi" to guests, many of them were tied up with the tray service. In order to solve this problem, Kagaya took the drastic step of introducing robots for the delivery of dishes.

A good case example of the increase in the value added of services in category (3) is Ogaki Kyoritsu Bank, a regional bank in the Chubu region. When the bank asked employees for opinions about the bank they work for on the occasion of the 100th anniversary of its founding, many expressed negative views about the bank, such as its long name and low name recognition. Alarmed by this, the bank's president newly appointed then decided what needed to be changed is not the name of the bank but the image of the bank, and chose to focus on the retail market of individual customers, bringing a paradigm shift in the bank's corporate culture with a policy to make every possible effort to enhance customer satisfaction. As a result, bank employees came up with a series of creative ideas of high value-added services from the standpoint of customers, and the bank succeeded in developing the spirit of challenge among employees to realize ideas by overcoming various obstacles.

Human resources development to enhance service productivity in category (4) represents innovation by creatively enhancing skill levels of human resources. Hello Tokyo Co., an emerging taxi service company in Tokyo is a good case example in this field. Since the company's founding, all Hello Tokyo taxis are equipped with GPS and can send location information to the head office on a real-time basis. Through data mining of drivers's data divided drivers into three groups,

Hello Tokyo has established a training system under which all drivers can acquire know-how of driving patterns of superior drivers, which forms the backbone of the company's rapid growth.

The "Japan 300 High-Service Award" project has developed a directory of nearly 300 specific case examples of service innovation described above.¹ The directory allows companies interested in service innovation to easily find case examples in categories of their interest in their own industry sectors, regions where they operate or types of service innovation they are seeking.

2.3 Service Blueprinting and the Service-Dominant Logic

From looking at these 236 case examples, we have learned that service innovation is occurring in various aspects of the service process and each has a unique story. In order to examine the relationship between these diversified service innovations and the service-dominant logic, it is necessary to describe the diversified processes of service innovation with a unified framework so that a comparison of the structures of service innovation is possible.

A potent methodology to visualize the entire service process for efficient analysis is service blueprinting. The framework of service blueprinting to understand the service process is also useful as a framework to interpret the process of service innovation.²

The service blueprinting methodology was developed by Shostack (1982) as a technique to design a service process. The technique interprets the service process as a chain of service functions and has introduced the concept of the "line of visibility" from the viewpoint of customers. Research by Shostack was later developed further by Kingman-Brundage (1989), who introduced such concepts as the "line of interaction" between customers and service providers; the "line of internal interaction" between support functions and service providers; and the "line of execution" between management functions and support functions. In addition, the concept of back stage and front stage across the line of visibility was proposed as places where service providers provide their services. Subsequently, the service blueprinting methodology has been further refined by introducing the viewpoint of IT utilization and others,³ but for the purpose of obtaining a unified framework to describe the whole process of various service innovations, the framework of Kingman-Brundage

¹Service Productivity & Innovation for Growth (SPRING), "Japan 300 High-Service Award" <http://www.service-js.jp/modules/spring/>.

²The author has experienced in utilizing the framework of service blueprinting to analyze the process and structure of knowledge service, such as management consulting and think tank and was convinced of its usefulness. Murakami, T., Knowledge service management (provisional translation from Japanese), Toyokeizai Shinpousya, 2012, 3.

³In regard with the historical development of service blueprinting there is a comprehensive study by Yukihiro Okada. Yukihiro Okada, History and future of service blueprinting (provisional translation from Japanese), Hitotsubashi review, Hitotsubashi University, 2005.11.1.

Fig. 2.1 Structure of Kingman-Brundage’s service blueprinting.
Source: Based on Yukihiko Okada, History and future of service blueprinting (provisional translation from Japanese), Hitotsubashi review, Hitotsubashi University, 2005.11.1

Management Function	Line of Execution
Support Function	Line of Internal Interaction
Service Provider	Back Stage
	Line of Visibility
	Front Stage
Customer	Line of Interaction

that links service management to the customer process across the line of visibility has characteristics required for such a framework (see Fig. 2.1).

The customer-centered approach to set up the line of visibility in the eyes of the customer and the line of interaction between the customer and the front stage of the service provider is appropriate in view of this paper’s purpose of analyzing the relationship between service innovation and the service-dominant logic. However, further ingenuity is required from the standpoint of service-dominant logic that regards the service process as a process of co-creation of value by the service provider and the customer.

From the standpoint of the process of co-creation of value by the service provider and the customer, in the process of provision of service, the service provider undertakes activities for the value proposition of service in a bid to co-create value, and at the same time the customer also undertakes activities to actualize that value together with the service provider. This could be called the customer process. This aspect cannot be seen by only setting up the line of visibility in the eyes of the customer. It is necessary to draw another line of visibility in the eyes of the service provider. In service behaviors of the customer, there are behaviors of the customers to realize the value of service that the service provider cannot see (on the customer side of the line of visibility), in addition to behaviors of the customer that the service provider can see (on the service provider side of the line of visibility). What the service provider can do is limited to the customer value proposition, and whether that is co-created as the customer value is defined by what sort of the customer process the customer experiences on the customer side of the line of visibility from the eyes of the service provider. In order to demonstrate this, it seems appropriate to

separate the value proposition and the value realization by drawing the line of visibility from the eyes of the service provider rather than drawing the line of interaction that blurs the relationship between the customer and the service provider.

By doing so, the service process is separated into the five stages, the customer process, front stage, back stage, support function, and service management. This distinction makes it possible to thoroughly understand innovation-triggered changes in the service process. However, this makes it possible to understand only changes in the operational aspects of service. Changes at the management levels, such as management decision-making that initiate innovation and its managerial assessment, are to be all included in the function of service management. Nonetheless, service innovation undertaken by “Japan 300 High-Service Award” recipients comes with changes that fundamentally alter the existing service management, and they are dynamic changes that can hardly be described by the static concept of service management.

In order to describe these dynamic changes associated with service innovation by this framework, two process elements have to be introduced. First, in place of the service management, upper side of the line of execution, the process element of “innovation logic” generated at the management level is set up on the service management, upper side of the line of execution that separate execution and management. Second, “innovation outcome” that evaluates the outcome with the management level metrics is introduced as a process after the realization of the co-creation of the customer value following the customer process. To this end, it is necessary to draw another line of execution that separates execution and management between the customer process and the innovation outcome. Therefore, the line of execution that comes after innovation logic is called the “line of initial execution” and the line of execution that comes before the innovation outcome is called the “line of final execution.”

The framework for describing the entire process of service innovation developed from this way of thinking is the model, shown in Fig. 2.2, that consists of the six layers, innovation logic, service support system, back-stage customer service, front-stage customer service, customer process and innovation outcome, divided by five lines.

2.4 Structure of Service Innovation

In order to understand the structure of service innovation in Japan, using the six-layer model, Tables 2.1 and 2.2 describe the representative case examples in the first four categories of the “Japan 300 High-Service Award” projects as discussed earlier.

The example of service innovation through scientific and engineering approach is the case of Kura Corporation that used the rate of disposal of revolving sushi as the key performance indicator (KPI). The enhancement of productivity by minimizing the rate of disposal has been set as the innovation logic. In order to realize this, the time limit freshness management system was introduced in the service support system and an analysis of data collected under this system and accumulated for five years

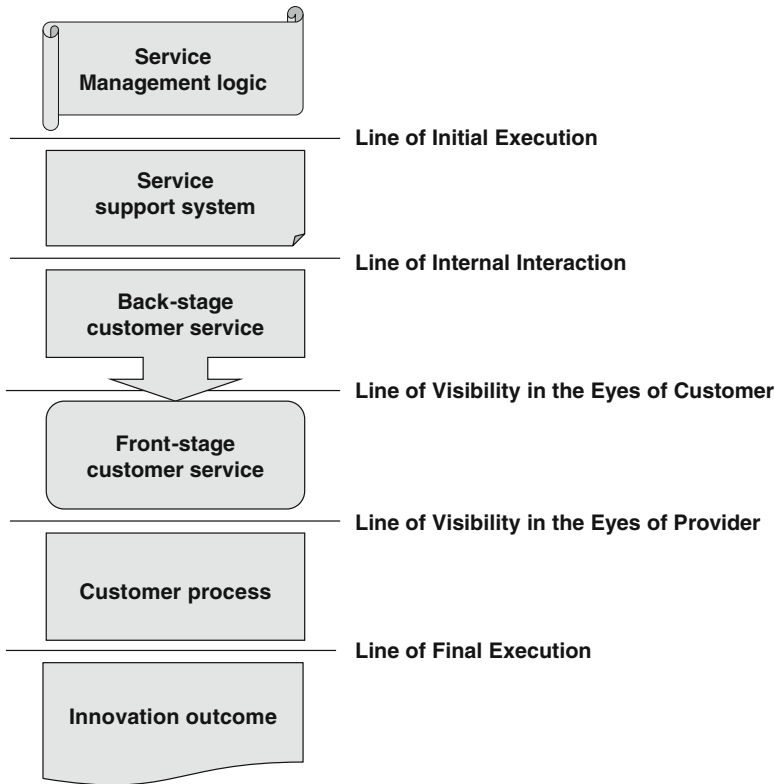
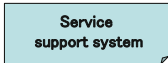


Fig. 2.2 Six-layer model of service innovation process

made it possible for the company to develop a system for forecasting customer demand for sushi items. As a result, information on customers and their attributes entered by attendants on the restaurant floor is shared by people in the kitchen in the back stage on a real-time basis and, based on the analysis of five-year data, the optimal combination of sushi items to accommodate the composition of customers in restaurants on a moment-to-moment basis is suggested and people in the kitchen prepare sushi items accordingly. The result is that dishes of sushi items preferred by customers are always put on the conveyor belts in optimal quantities in front-stage restaurants. Customers come to revolving sushi restaurants with the expectations of merely having sushi at reasonable prices. Customers who visit Kurazushi restaurants have the experience of being able to enjoy reasonably priced and at the same time always-fresh sushi items with a sense of security. The realization of this customer process resulted in increase in the loyalty of customers and the Kurazushi chain received a lot of favorable word-of-mouth advertising. As a result, the rate of disposal of sushi items has declined to 6 % compared with around 10 % at ordinary revolving sushi restaurants. The lower rate of disposal brings the innovation outcome that allows the company to maintain reasonable prices through enhanced efficiency.

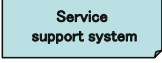
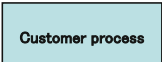
Table 2.1 Service innovation of Japan 300 high-service award companies 1

Innovation category	Scientific/engineering approach	Improvement of the service process
High-service companies	Kura Corporation	Kagaya
	Enhance productivity by minimizing the rate of disposal of revolving sushi used as KPI, without changing the basic philosophy to serve sushi with additive-free.	Creating the best environment to improve the quality of the cordial hospitality to customers provided by attendants during their stay when dinner is served in each guest rooms.
	Established the system for forecasting sushi item demand by customer type and attribute via the introduction of the time limit freshness management system and analysis of five-year data.	Development and introduction of robots for dinner delivery from the kitchen to service rooms of each floor, so that attendants do not have to carry them for several hundred meters at dinner time.
	Floor attendants input customer composition information to be shared with the kitchen to provide appropriate sushi items in adequate quantity.	Enabled to reduce the physical time required for the delivery of dinner from kitchen to guest rooms to just one-fifth.
	Dishes of sushi items preferred by customers are likely to be put on the conveyor belts in optimal quantities. Always sushi plates on the conveyor belt tend to be kept fresh.	Dramatic cut in time required for tray service secures enough time to provide cordial hospitality to individual customers.
	Coming with the expectations of merely having sushi at reasonable prices, customers experience to enjoy reasonably-priced and at the same time always fresh sushi items with a sense of security.	Visiting with relatively high sensitivity to the quality of hospitality of this sort, customers can experience the high-quality time of receiving its utmost hospitality.
	The rate of disposal of sushi items has declined to 6% compared with around 10% at ordinary revolving sushi restaurants, lead to maintain reasonable prices through enhanced efficiency.	Won the overall first place for 27 years on end in "Japan's 100 Best Hotels in Inns Chosen by Professionals". The high customer loyalty leads to high management performance.

Remarks: The rectangles with thick borders indicate the major driver of each innovation process

Remarks: *Thick framed rectangle* indicates the major driver of each innovation process

Table 2.2 Service innovation of Japan 300 high-service award companies 2

Innovation category	Increase in value added of services	Human resources development
High-service companies	Ogaki Kyoritsu Bank	Hello Tokyo
	Creating the best environment to improve the quality of the cordial hospitality to customers provided by attendants during their stay when dinner is served in each guest room.	Operating knowhow of excellent drivers should be shared across the company in order to accelerate the enhancement of the quality of its drivers through thorough training.
	Negotiations with the regulator and the industry organization to realize various first initiative by a Japanese bank.	Introduced the system where all vehicles equipped with GPS send location information to the head office on a real-time basis for the mapping of their trajectories in a 10-meter mesh on maps.
	Developing regional banking operation systems to accommodate ATM operations for 365 days and introduction of game elements, the point system and other new attempts.	Collectively examining the visualized driving data of high performance drivers in the training system, drivers can extract specific behavioral patterns for customers likely to find available taxis.
	Moved ahead of Its peer banks to Sunday banking. Everyday banking then to Morning banking. Furthermore introduced convenience store-type and bus-type outlet to enhance convenience.	On attending the training sessions, drivers begin following the driving patterns that make them easier to be found by customers.
	Overwhelmingly friendly and overwhelmingly convenient customer services helped customers shed the rather rigidly formal and outworn image of a regional bank they previously had.	Higher probability of customers being able to find taxis when they want to catch them. and the increasing convenience in taxi use.
	Banks You Want to Deal with, " in 2005. Overtook its longtime rival in terms of the number of individual deposit accounts held.	The occupancy rate has reached 50%, far above the industry average. Hello Tokyo, although it is the newcomer, has expanded the number of vehicles held by about 15 times in four years.

Remarks: The rectangles with thick borders indicate the major driver of each innovation process

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The case of improvement of the service process is Japanese-style inn Kagaya, given that the most important service value for Kagaya is the cordial hospitality to customers provided by attendants during their stay at the inn, Kagaya opted for the service management logic of creating an environment to improve the quality of this hospitality when dinner is served in guest rooms, and to realize this, it took the drastic step to improve the service support system in the form of introducing robots for the delivery of meals. This enabled Kagaya to reduce the physical time required for the delivery of dinner to guest rooms to just one-fifth in the back stage. In the front stage, this also allowed attendants to spend the saved time on their services to provide more cordial hospitality to individual guests. While many of customers who come and stay at Kagaya appear to be relatively highly sensitive to the quality of hospitality, whenever they visit the inn, they can experience the high-quality time of receiving its utmost hospitality that should satisfy their sensitivity. As a result, Kagaya has earned the recognition of the Japanese-style inn with very high customer satisfaction and has won the overall first place for the past 36 years in "Japan's 100 Best Hotels in Inns Chosen by Professionals." This demonstrates the innovation outcome where the high customer loyalty leads to high management performance.

The case of service innovation of increasing value-added services is Ogaki Kyoritsu Bank. The innovation was kicked off by the changeover of the service management logic to use the improvement of customer satisfaction as the KPI for bank management, and the bank's president came up with the basic policy that in order to demonstrate its new management stance, it is necessary to revamp the services of the automated teller machines (ATMs) that are most frequently used by bank customers. In line with this policy, the bank extended the ATM service hours beyond those of its peers. Whereas Kura Corporation and Kagaya first moved to reform the service support system, Ogaki Kyoritsu Bank directly revamped the customer service in the front-stage customer contact points. The bank first moved ahead of its peers including major city banks to "Sunday banking" by operating ATMs on Sundays in 1990 and then realized "everyday banking" by allowing its customers to use ATMs 365 days a year, including Saturdays, Sundays, and public holidays in 1994. Furthermore, to accommodate the habits of people in the locality of Nagoya who enjoy the "morning service" of toast and coffee with a boiled egg that comes free of charge at coffee shops, the bank launched "morning banking" to allow customers to use ATMs early in the morning with a no-fees "morning service." Its witty design at customer contact points also include the introduction of ATM game services where slot machines, roulette wheels, and dice rolling on ATM display screens. The bank's initiatives extended further to the establishment of "Convenience Plaza Handa" (Handa Branch), a convenience store-type outlet modeled after the convenience and high-service performance of a Japanese convenience store and the establishment of a mobile outlet that carries the banking functions in a small bus that periodically visits mountain areas to serve customers who have no bank outlets nearby. Ogaki Kyoritsu Bank customers have thus accumulated the experiences of overwhelm-

ingly friendly and overwhelmingly convenient customer services that helped them shed the rather rigidly formal and outworn image of a regional bank they previously had. As a result, the bank placed first in Diamond, Inc.'s nationwide customer satisfaction survey, "Ranking of Banks You Want to Deal with," in 2005. As seen above, Ogaki Kyoritsu Bank made the first innovation attempt in the front-stage customer service, and followed this up with the improvement of the operational system to accommodate the extension of operating hours of ATMs in the back stage and negotiations with the regulator and the industry organization to realize the first initiative in Japan conducted by the service support division. All of these feature the changes originating in the front stage. The outcome of these successive innovations was reflected in the bank's financial performance, and in 2010, Ogaki Kyoritsu Bank became the top regional bank in the three prefectures in the Tokai region, overtaking Juroku Bank, its longtime rival in terms of the number of individual deposit accounts held.

The case of service innovation through human resources development is demonstrated by Hello Tokyo, the up-and-coming taxi service company. Hello Tokyo has developed refined management logic that operating know-how of excellent drivers should be shared across the company in order to accelerate the enhancement of the quality of its drivers through thorough training. In order to realize this, Hello Tokyo established a system under which it visualizes the operating patterns of excellent drivers in the back stage and other drivers learn from them in 2-h lecture meetings once a week.

In order to make these learning experiences possible, Hello Tokyo has put in place the system where all vehicles equipped with GPS send location information to the head office on a real-time basis for the mapping of their trajectories in a 10-m mesh on maps. Drivers are divided into three groups based on this data, and the data mining output is sent to the training system in the back stage for ordinary drivers. Excellent drivers are given incentives for their good behavior. By confirming the visualized data, the back-stage training system can extract specific behavioral patterns, such as "things like this happened in places like this in busy downtown streets at what hour." The accumulation of such data made Hello Tokyo drivers aware that the revenue-generating driving patterns are "driving patterns that make it easier for customers to find available taxis," instead of the patterns of taxi drivers trying to "find customers."

In actual operations in the front stage, drivers who attended the above-described training sessions are now following the driving patterns that make them easier to be found by customers. For example, at an intersection where there are usually many potential customers, they go round by keeping left-turn routes at the intersection in order to maximize the number of times they can stop per unit of time.

As a result, the occupancy rate of Hello Tokyo has reached 50 %, far above the industry average, indicating the higher probability of customers being able to find taxis when they want to catch them and the increasing convenience in taxi use. As an outcome of its innovation, Hello Tokyo, though it is the newcomer, has expanded the number of vehicles held by about 15 times in only four years.

2.5 Concluding Observations

We can derive some knowledge about the relationship between service innovation and the service-dominant logic by describing the processes of service innovations exemplified in the companies above.

First, each type of service innovation, without exception, has brought about the co-creation of the customer value between the customer service and the customer process across the line of visibility from the eyes of the service provider.

Kura Corporation customers can eat fresh sushi items at reasonable prices with a sense of security; customers at Kagaya can receive cordial hospitality; Ogaki Kyoritsu Bank customers can pleasantly receive settlement services anytime, anywhere with a sense of security; and Hello Tokyo customers can use taxis that are highly likely to be found and catch when and where they wanted them. In each of these cases, customers experience a quality of service that exceeds their prior expectations, thanks to the customer value proposition made by the respectively unique service providers, and see the inherent customer value swell significantly.

Second, such service innovation always begins with the establishment of innovative service management logic. Service innovation is put into practice as the service process goes through the service support system, the back stage and the front stage. However, it should not pass unnoticed that prior to the realization of service innovation, there are bold decisions to choose unparalleled innovative service management logic, such as the introduction of robots by a Japanese-style inn and “Sunday banking” and “everyday banking” by a regional bank. Without such decisions, the innovation process cannot start rolling.

Third, any innovation has its drivers to activate the innovation process. In the case of Kura Corporation, the innovation drivers are the time limit freshness management system in service support and the sushi item demand forecasting system based on the analysis of data accumulated for five years. For Kagaya, the innovation drivers are the introduction of robots for automated dinner delivery; the extension of ATM operating hours and the introduction of entertainment elements in the front stage for Ogaki Kyoritsu Bank; and the introduction of the driver training system on the basis of the visualization of the driving patterns of excellent drivers in the back stage for Hello Tokyo. Without these innovation drivers, any of service innovations described above was inconceivable. In this regards, service engineering as well as service science will play an important role.

In fact, all innovations, without exception, had their origin in the innovation of service management logic and the co-creation of the customer value is the destination. Innovation drivers are varied, including the service support system, the customer service in the back stage, and the customer service in the front stage.

The service-dominant logic, which has the co-creation of the customer value as its core concept, is important as it indicates the destination, but the outcome of service innovation is not the co-creation of the customer value itself. The outcome is the enhancement of management performance, such as significant increases in sales and profits and their enhanced sustainability. Service innovation is the process that

has a larger scope and longer chain than service-dominant logic. Getting this process rolling requires innovation of service management logic as well as an uninterrupted chain that brings about the co-creation of the customer value by linking service management logic to the service support system, the back-stage customer service, and the front-stage customer service.

Service science in Japan is still in its infancy. Service science in Japan tends to be discussed always in association with the service-dominant logic. However, if service science is to truly contribute to service innovation, it should be conceptualized as service science with a broader scope that can contribute to the entire service innovation chain, which is kicked off by the innovative service management logic and led by service-dominant logic to the co-creation of the customer value, then headed toward the goal of the tangible or sometimes intangible innovation outcome.

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