Differentiation Systems and Meta-systems:
Mainteance and Innovation of
Business Differentiation Mechanism

Tatsuyuki Negoro*

To sustainably differentiate your business from that of other companies, you must have differentiation mechanism that is difficult for competitors to imitate. Successful companies enhance this differentiation mechanism through investment and business activities. However, changes in the environment, customer needs, and competitors' counter-strategies require any company to reform their differentiation mechanism over time.

A system in which the differentiation mechanism leads the way to differentiation is called the "differentiation system." A differentiation system facilitates the analysis of the framework to help managers differentiate their business from that of others in a certain realm. Further, the maintenance and innovation of a differentiation system constitutes the meta-system, which aims to maintain and change the differentiation system.

Differentiation system

A resource-based view looks at management resources (including capabilities) as the source of a sustainable competitive advantage. According to this view, sustainable competitive advantage requires companies to have resources that their current and potential new competitors cannot imitate. Obviously, such resources should simultaneously reveal their value in the provision of products and services and in market competition.

There are various types of resources. Some of the essential resources are facilities, patent rights, a brand, and trust from business partners. These can be called *assets*. Other

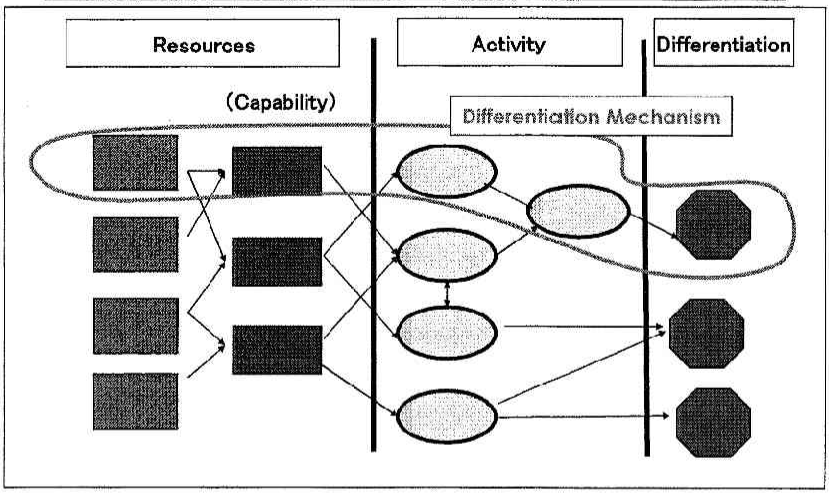
*Tatsuyuki Negoro is Professor of Waseda Business School, Japan. E-mail: negoro@list.waseda.jp

resources include capabilities such as technical strength, marketing power, operational know-how at production sites, and sales know-how. An information system is also an asset. Resources should essentially be those that can be purchased or created, and stored, and that managers can apply at their discretion. Resources that other companies can share completely cannot be deployed as a source of differentiation. Discretionary application does not necessarily require total control of resources. For example, a supplier with which the company has a continuous business relationship as a main user can be regarded as a resource. Unless the supplier is a subsidiary wholly owned by the company, it is not under the control of the latter. Passionate customers can also be regarded as a resource as they have the similar nature.

A question arises here: Can multiple companies controlling the same resources achieve differentiation in the same way? Are there not better ways to use the resources? Aren't the ways of using the resources maintained through careful activities repeated every day? As mentioned above, resources should be the stock that can be accumulated. On the other hand, business activities are flows that cease to exist when they stop repeating. From this perspective, differentiation is effected not only by resources but also by the activities that use those resources.

The differentiation system illustrated in Figure 1 shows the analysis of a business differentiation mechanism (framework) based on the assumptions described above. The figure gives a graphic representation of the mutual relationship by going back to the evaluation items (differentiation) from the customers' viewpoint, between what the company does (i.e., its activities) and has (i.e., its resources), along with the main factors that construct the company's competitive power. The arrows between the items in the figure show a relationship between the purpose and measures, and the relationship of mutual reinforcement. Such past and present analyses illustrate the development of successful models. The analysis of Seven-Eleven Japan, Co., Ltd., which is presented later in this article, is an example of this type of illustration. In addition, an analysis using this kind of graphic representation can become a foundation of business strategy preparation when an ideal differentiation system figure is designed for the future.

Figure 1 Differentiation System and Differentiation Mechanism



A differentiation mechanism as a partial system

Not all the resources and activities affect a particular differentiation in the same manner. A partial system that has a larger effect on certain differentiation items can be separated. I call this partial system a differentiation mechanism. This differentiation mechanism can be defined as a partial system of the business system, which is developed by a combination of certain management resources and company activities. Business system here refers to the entirety of business entities developed as a result; the differentiation system is a consistent abstraction of the portions directly related to the differentiation items that are established from the business systems. The subdivision of the differentiation system is the differentiation mechanism.

A company can haves one or more than one management resources and company activities, composing the differentiation mechanism. In addition, more than one differentiation mechanism can possibly exist within the company. If company activities are not unique—if only the management resources are unique— the characteristics of the differentiation mechanism are only determined by those management resources.

Let us consider some short examples of differentiation mechanisms. The first example is the case of Coca Cola (Japan) Company, Ltd. Coca Cola's model combines a network of vending machines (a management resource) and a product development strategy that does not hesitate to copy competitors' successful products at an early stage (a

company activity). This differentiation mechanism is a source of their wide variety of products, deployed to take advantage of current trends (the resulting differentiation).

As another example, Daiso-Sangyo combines large storehouses (a management resource), a policy of making bulk-order, large-lot purchases (a company activity), and a price strategy of selling goods at 100 yen (a company activity). The differentiation mechanism built out of these components helps Daiso sell an assortment of goods at the surprisingly low rate of 100 yen (the differentiation).

As a third example, Yoshinoya Co., Ltd. combines a nationwide restaurant network (a management resource), a beef supply chain under long-term contract (a management resource), and a single-menu strategy (a company activity). This differentiation mechanism contributes to Yoshinoya's food being what the company calls "cheap and tasty" (the differentiation).

As these examples show, a differentiation mechanism does not necessarily represent all the differentiation factors involved. They instead represent the abstracted form of essential factors. In other words, although other factors or differentiation mechanisms can exist, they may not be considered part of the differentiation mechanism. For example, in the case of Yoshinoya, a combination of activities, such as assets in the form of recipes, the business manual that establishes the uniformed provision of services, and the education programs that help employees better understand the manual, contributes to the cheap and tasty characteristics of the food.

The differentiation system of Seven-Eleven Co., Ltd.

Seven-Eleven Co., Ltd. (hereinafter referred to as Seven-Eleven) will be taken as a model for our detailed analysis. Figure 2 shows the analysis of the differentiation system after Seven-Eleven launched what they call the fifth general shop system (beginning in 1996). In this model, not only the details of differentiation but also financial results are focused in the differentiation layers. These presentations make the analysis of the differentiation mechanism possible, although they cannot compare its differentiation details with those of another company. An "Accuracy" column is added in this example, for the purpose of applied analysis, based on the recognition that Seven-Eleven's differentiation mechanism contributes to four different types of accurate business forecasting.

The differentiation mechanisms on which we will focus are the differentiation mechanism for what the company calls *hypothesis testing order* and the differentiation mechanism of Team MD (merchandizing). Hypothesis testing order is a process by

which the company tries a new ideas for product, exhibition and shelf arrangement, and then uses the resulting data to assess performance.

The differentiation mechanism for hypothesis testing order has been recognized at Seven-Eleven since an early stage. Since the mid-nineties, as an external factor, product life cycle has tended to become shorter, requiring changes to be made through hypothesis testing order flexibly to cope with the changes in market environment. In particular, it was felt necessary to minimize opportunity loss when a new product was launched by disseminating accurate information quickly.

In addition, Seven-Eleven tried to develop an information system that new shop staff could use easily, and to eliminate the information gap between the head office and stores. To achieve this purpose, the company introduced distribution of multimedia information via satellite and optical communication systems; qualitative information that is not suitable for digitalization came to be transmitted in this way. It was said that up to the time of the fourth general shop system that, only one-third of the information available could be communicated from the shop instructor to the ordering staff at the store. With the introduction of the fifth general shop system, however, about 70 percent of the information could be communicated, contributing to the improvement of order accuracy.

Seven-Eleven also strengthened information sharing not only between the head office and the shops but also between the company and the manufacturers. For example, the system for manufacturing products that expire quickly, such as boxed lunches, shifted to a method based on forecasting demand and producing products based on real-time data.

The headquarters of Seven-Eleven focuses on the development of original private brand products in order to meet rapidly changing customer preferences and local needs. These original products contribute to earnings recovery and differentiation against competitors' chain stores. The differentiation mechanism in the development of original products is a group called "Team MD." Team MD is responsible for introducing original products through a joint development effort with the leading manufacturers in the processed food sector. Under this differentiation mechanism, manufacturers' technical strength and Seven-Eleven's marketing power are fully exploited; POS data is taken into account as well. At the investigation phase before development and at the testing stage during test marketing, Seven-Eleven can make use of the largest set of POS data in Japan. Such data offers significant appeal to manufacturers.

In more practical terms, in 1979 the company implemented a joint product

development program with manufacturers. Japan Delica Foods Company, Ltd., which was established by a leading cooked rice manufacturer as the intermediary of this program, is also responsible for checking production system as well as quality management. At an early stage, Seven-Eleven developed products mainly of boxed lunches and onigiri (rice balls) with small- and medium-sized companies. Since the number of stores selling their goods started increasing rapidly around 1985 and the frequency of distribution was changed to three times a day, they came to realize that the existing deli producers had increased distribution costs and limited the company's capacity to develop a variety of deli products. Thus, Seven-Eleven decided to invite major manufacturers to participate their product development and supply process.

Once it launched into collaborative development, Seven-Eleven also requested that its major manufacturer partners establish plants to exclusively provide products to Seven-Eleven. Since 1984, when Q.P. Corporation built a plant exclusively for Seven-Eleven, House Foods Corporation, Prima Meat Packers, Ltd. and Ajinomoto Co., Inc. have each invested in building a Seven-Eleven plant.

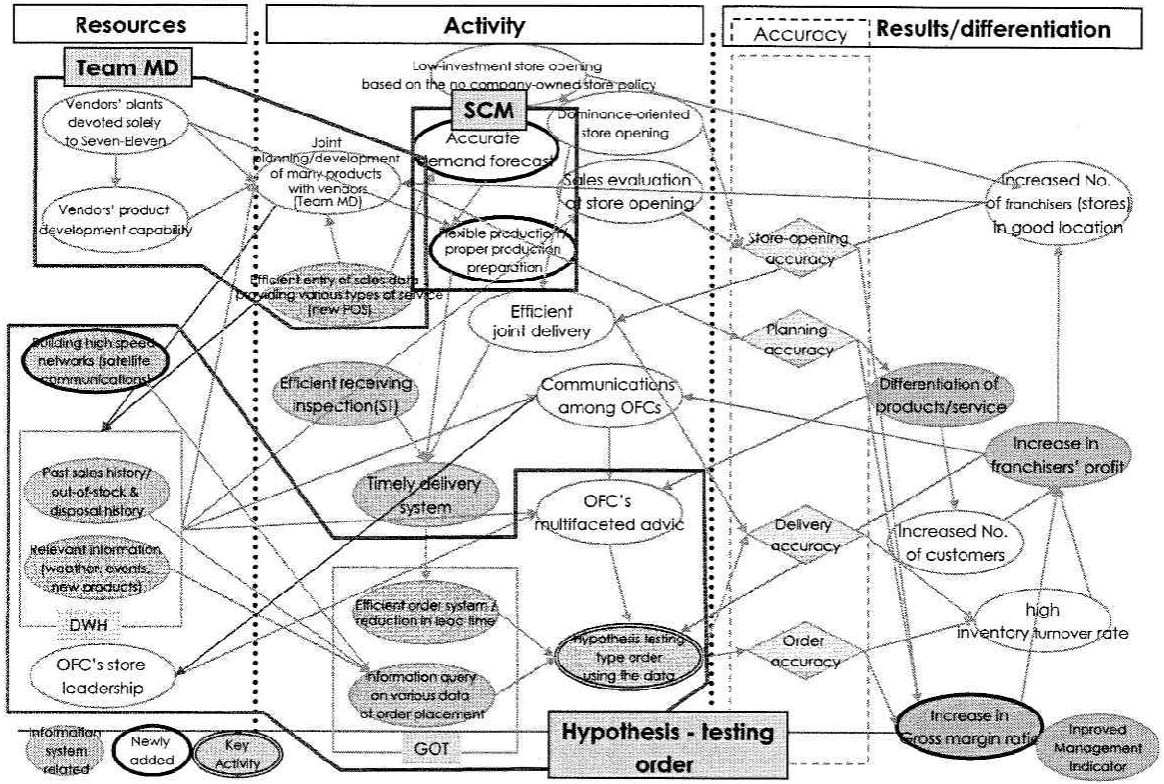
The arrows in Figure 2 direct from differentiation layer to activity layer, and move from activity layer back to resource layer. This movement indicates that activity levels improve through daily differentiation activities, and resource accumulation is encouraged. These arrows also show that the differentiation system is a learning system.

Differentiation system and inimitability

In the pursuit of sustainable competitive advantage, it is essential to consider at three layers of the differentiation system—at differentiation, activity, and resources—how to make it more difficult for competitors to imitate a company's advantages. At the resource layer, it is important to make it difficult to imitate individual resource factors, as well as to look for inter-resource synergy. At the same time, in the activity layer, it is important to improve the level of each activity and mutual enforcement relationships, simultaneously enhancing the systematic nature of activities. At the differentiation layer, it is necessary to pursue product and service effectiveness for the target customers, and the consistency of the differentiation items. As such, the higher the consistency between the layers, the more feasible it is to achieve competitive superiority that will be difficult to imitate.

The first step in analyzing or designing a differentiation system is to identify the differentiation layer. The differentiation items are represented by the items of evaluation by the company's target customer segmentation. The analysis progresses from the

Figure 2 Seven-Eleven Japan: Differentiation system chart (Phase V: 1996 -)



(Source: Mukai and Negoro, 2010)

differentiation layer to the activity and resources layers. Therefore, the differentiation system figure does not necessarily carry out the analysis from a viewpoint of all the customers, nor does it provide all the resources and activities used for the realization of a certain product or services, because business activities include factors that are not directly related to the main factors of evaluation by a set of customers. (For example, activities that control transaction balance are not generally the subject of analysis when differentiating between banks.) Indirect business activities, such as financing and fund-raising, and the resources used for those indirect activities, are not the analytical subject of the differentiation system but are the content of the meta-system that will be described later in this article.

In the meantime, in analyzing the differentiation system, it is possible to include in the differentiation layer not only the areas in which the company is competitive but also other areas in which it has disadvantages. In this case, the lack or non-existence of the resources and activities of the company can be analyzed.

The premise of differentiation system analysis is that analytical target factors are consistent with each other. In real business activities, however, inconsistencies exist and some resources are not used. There may also be some conflicts in policies for differentiating between segments. In addition, resource, activity, and differentiation layers may influence and change each other; at the same time, any of the layers may change due to the relatively independent factors. For example, technological changes may alter resource accumulation policies before differentiation items are changed. Meanwhile, the concept of the differentiation system does not deny holding inconsistent and thus excessive resources and activities for the future changes in a company.

Maintenance and innovation of differentiation systems

Companies that succeed make efforts to strengthen the differentiation mechanism that led to that success, and to thus sustain it. To this end, a system that maintains, improves and enhances the differentiation mechanism is necessary. In addition, changes in the environment, customer needs, and competitors' counter-strategies may require changes in the differentiation mechanism. A meta-system, diagrammed in Figure 3, makes it possible to maintain the differentiation mechanism and change it through innovation. Companies with a good maintenance system succeed in reinforcing their differentiation mechanisms; those that deploy an innovation system can respond to environmental changes. A maintenance system operates consistently, while an innovation system is deployed temporarily during a time of change.

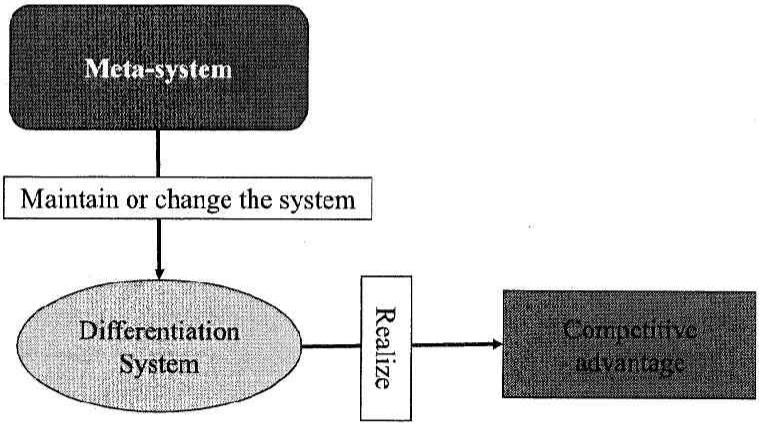
Business system development may take the form of evolutionary renewal, where a currently successful differentiation mechanism is modified and added in stages, or may be implemented in a form of renovation by replacing a differentiation mechanism that was successful in the past with a new one.

In practice, the latter form of renovation also maintains many resources and activities; no company simply replaces all the elements.

What separates the two approaches is how they treat the differentiation mechanism as a source of past successes. The former approach aims at expanding the business system and the latter at discarding.

In the aforementioned case of Seven-Eleven, the changes in the differentiation mechanism were implemented in a continuous fashion. On the other hand, the recent management reorganization at Panasonic Corporation (hereinafter referred to as Panasonic) took the form of noncontiguous renovation, with the major differentiation mechanisms being replaced.

Figure 3 Mutual relationship between differentiation system and meta-system



To reorganize management, Panasonic demolished the Operation division profit center approach, which was a source of past successes, and reorganized over 100 divisions with overlapping operations into 14 domains. For example, after the reorganization, Panasonic consolidated its three operation divisions in the digital camera sector into only one digital camera operations center. Such reorganization is based on the realization that, due to internal competition, Panasonic had entered the digital camera market in 1996 but

had been unable to establish a competitive advantage. Together with this action, a marketing headquarters department was established, to which sales power and responsibility was largely transferred. This example represents the renovation of a differentiation mechanism aimed at shifting from a product-out concept to a market-in concept.

The policies concerning the company's affiliated store network, another source of success at Panasonic, also changed substantially. Panasonic decided to start providing selective support to its affiliated stores by designating 5,000 out of 15,000 total stores as advanced "Super Pro-shops" (SPS). As a result, the sales by stores within the affiliated network expanded.

Meanwhile, the company introduced a technology platform system, reorganized the assignment of all the technical engineers to select and concentrate on the required technologies, and focused on product development in order to newly build the differentiation mechanism to vertically launch new products (releasing new products and starting bulk production and marketing at the same time).

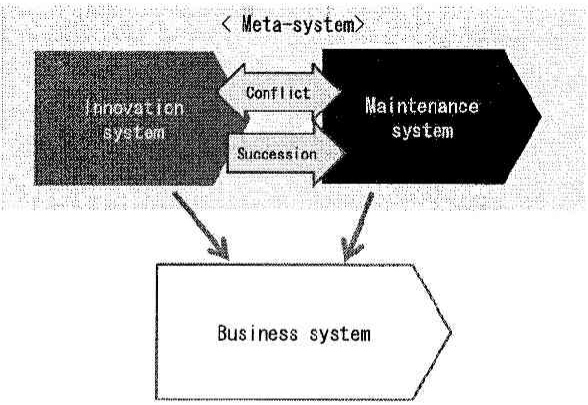
Panasonic also reformed its management accounting system. By introducing a performance appraisal system called Capital Cost Management and by implementing a group depository investment system, it was made clear that overseas operation would be controlled by headquarters. In addition, a global consolidated accounting system was developed.

IT investment was emphasized as a trigger of innovation, with 200 billion yen invested. Under the slogan "IT changes Panasonic," the IT Innovation Department was established, and then the company President Kunio Nakamura assumed the position of department director concurrently.

It should be noted that these innovation efforts at Panasonic did not materialize immediately after the need for change was pointed out. For example, there had been proposals to reform the profit center since the late 1970s; but because this system was understood internally to be a source of strength, reform had only been partially carried out.

In other words, a renovation system that replaces a differentiation mechanism may sometimes conflict with the maintenance system that incrementally improves that mechanism, as illustrated in Figure 4. A genuine internal awareness of crises and strong top management leadership are required to break through such a conflict.

Figure 4 Maintenance system and Innovation system



Conclusion

A differentiation system is based on the argument that a combination of resources and an activity system creates a competitive advantage and differentiation in the market. This argument was born out of the development of the resource-based approach, which posits that resource advantage is a source of competitive advantage. A differentiation system allows the operational structure to show which differentiation mechanism (which is a part of the differentiation system) contributes a particular type of differentiation. Further, the maintenance and innovation system of such a differentiation system is called the meta-system. A meta-system is composed of an innovation system, which improves the differentiation mechanism through innovation or creates a new one, and a maintenance system for the differentiation mechanism. The innovation and maintenance systems may sometimes conflict with each other. Top management leadership is required to eliminate such conflicts.

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