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## Customer Experience Management Influencing on Human *Kansei* to MOT

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### 1. Introduction

From the view points of Management of Technology (MOT), the importance of management of new product development can be illustrated as follows:

The production rule in 20th century manufacturing and fabrication industry is placed stress on “how to make”. The production rule in 21st century is stressed on “what to make.”

Attractive goods and products are most important for all divisions of a corporation. The management of new product development plays a central role in the corporation and is persuade from such multi-direct view as combined viewpoints between technological points and non-technological points (Technology + Non- technology).

The problem of manufacture industries in Japan is that high technological products can not result in high sold ones. This is not coming from technology itself but from management philosophy or methodology, therefore the education and research on management of technology (MOT) should be emphasized.

The management of new product development is to commit in all aspects of developing a new product and to make it sure that developed products should be successfully hit.

There are rules and sharable attributes among cases of hit product development.

The author tried to mine and build rules among successful attributes and features in project management after interviewing directly with product and project managers who succeeded in developing hit products and scrutinizing the gift, talent and ability required for developing hit products. The developing methodology of new products and hit products is proposed as “seven tools for product planning”. The tools are widely used and contributes in producing hit products in various fields.

On the other hand, the author recognized and understood through his long experience that products should not have their own functions and quality elements but also something such as design that moves, touches and impresses human *Kansei* (representative word of feeling, taste, emotion, etc.) and psychology. Nevertheless, up to the present, the author could not commit in building the theory and methodology to install such features and attributes in new products, even if he scrutinized and prepared them.

The author concluded that the customer experience can play a central role in a theory and method materializable to install something *Kansei* and psychological in a new product and found that the reasons of hit products and brand products cannot be explained by conventional marketing theory but the experiential marketing and customer experience management can do how to sell so well.

The following will be spent to describe how the philosophy of experiential marketing and customer experience management, which is manufacturing and fabrication that influencing on the *Kansei* connects with, have the relation with Management of Technology (MOT).

## **2. Management of New Product Development in MOT**

Experience to design, intuition to design and courage to decide are often emphasized. But it is not management. Even if defect rate is 0 % in the sense that no product has any defect in the final manufacturing procedure, the defect rate should be 100% when no product will not be sold at all and all products will be deserted.

An engineering school of a university in Japan provides lectures on "production management" and "quality control". It is possible to learn these methods and techniques. A management school, a commerce school and a business school provide lectures on "marketing" that is a central concept in distribution and advertising. Many professors of marketing come from an industry of distribution and advertising. It is possible to learn marketing research in there. In these fields, it is analyzed why such products are hit. Nevertheless, the method to design a hit product and the management and the method of new product development is not lectured in any places.

Products manufactured in industries have much technical portions in there. Therefore, in many cases, engineers take a role of a product manager and product developer. For instance, in an automobile industry a product manager used to be promoted from an engine designer or from a body designer. It is not possible to develop a new car only from the viewpoints of engine technology. It is necessary to develop a new product with many views from marketing, design, cost, investment effectiveness, environment problem besides technological aspects. This is a typical management of technology (MOT) which bridges management to technology and mechanical design of an automobile from many angles.

Japanese production (manufacturing and fabrication) system had advantages in 1980s. This is the most origin of the competitive power. In 1990s the large portion of Japanese production systems started to move their manufacturing factories to off-shore. According this off-shoring, the predominance of Japanese production systems decreased.

Contrarily, since 1990s, the United States' "new product development system" becomes superior to Japan. It should be emphasized that innovation management of venture companies that are research and development oriented, especially in Silicone Valley, differentiated USA from Japan. A business school, especially a MOT school in the United States provides "production management" and "Design management" that are not lectured in Japan. Therefore, it is very much significant that management

of technology (MOT) development and management of new products are educated and researched.

Even if this is not whole reason, it should be great significant that the graduate school level education of MOT and especially the management of new product development are provided in Japan.

It is very hard to develop hit products. In an industry of beverage drinks "three in one thousand" is told. That is, there are only three hit products at most in developing one thousand of new products. Therefore, it should be most beneficial (?) to advise business persons about how to develop hit products.

For example, it is to advise or forecast that a new product or a proposal of a new product will not hit. This forecast should come true. You may tell this reason because such a product did not exist. This explanation can be acceptable for any new products. Even if the new product hits, you may say your advice should work well. Of course, this is a cynical irony.

Some marketing consultant built a museum of 80,000 of new products in the United States. Almost all products were developed with loud advertising but failed in hitting. The museum happens to be unexpectedly one of failed products. Such 80,000 failures should be the worst example.

### **3. Design of Intangible Event from Tangible Product**

It is not always true that highly technical superior and high quality products sell well. Therefore, it is necessary to employ MOT management in developing a new product.

Extremely speaking, MOT is not required if highly technical products and high quality products can sell well. In this sense, MOT discusses other aspects and managements besides technology and quality.

There are many aspects and managements considered in MOT but the most important is about customers. It is frequently said that "a product did not sell well even if the product was good technically." The product is a technical product but not the goods. Therefore, if customers do not accept highly technological products and high quality products, these are no the goods.

So the most important requirement for "the goods" is to design an intangible event that builds a smooth relation between a tangible product and a user. In this discussion, the stress is placed on the contact point between a product and a user, and an interface or a touch between a product and a user. Furthermore, it is more important to provide some "meeting" to make a user encounter such a product.

The design of meeting between a user and an tangible product does not mean to decide only a shape and styling and form of a product but provides a product such as a user feels well or becomes happy in using it.

A tangible product that was designed under consideration of its users should be sold well and be the goods. The intangible event means to combine a product with the goods such as both sides of a coin. This is to design an intangible event that makes a user meet a tangible product. In other words, the most important is how useful a product designed can be for people who buy this.

Designers and producers used to have a strong satisfaction and confidence of designing a high technological product because of its high technology. But customers do not understand its high technology and do not percept whether its technology contributes and has relation with their happiness. This tendency becomes more remarkable as technology becomes higher. The explanation can be obtained from experiential marketing and customer experience management.

#### 4. Customer Experience and Strategic Experience Module

"Customer Experience" does not mean individual experiments obtained in the past, but indicates the value of something that impresses and appeals on the Kansei, senses and impression of a user's such as a customer actually directly feels and is impressed on the contact with a company and brand.

"Customer Experience" is not an additional and incidental value but an essential and intrinsic value obtained in the case where a product and service are understood from customer oriented points of view that are provided by a company and a brand. The objective of marketing that creates "Customer Experience" ("Experiential marketing") is not to provide products and services as a tangible thing to customers, but to take the consume of the customers' in the context of their life style and to interpret their consumption through putting stress on their senses and feelings in the process.

Schmitt, B.H. who is a professor of Columbia University promoting the experiential marketing and customer experience management classifies the experience values into five modules illustrated in Table I. The classification is worth of strategic bases of marketing activities. The five modules of the strategic experience values are as follows:

- (1) "SENSE": this is a sensitive experiential value to provide stimulus exciting by appearing directly on the five senses of a consumer's such as visual sense, auditory sense, sense of touch and taste, sense of smell. For instance, let us consider about automobiles. Jaguar provides sensitive experience value to appear on aesthetic sense, aesthetics. On the other hand, Porsche does sensitive experience value of stimulus excitement.
- (2) "FEEL": this is an emotional experience value that appeals on the inner feeling and mood of customers'. The relaxed feeling that we feel in drinking a cup of coffee at Starbucks Coffee, the enthusiasm that we experience in enjoying at Disneyland, and so on are an emotional experience value.
- (3) "THINK": this is an intellectual experience value that appeals the intellect of customers' through cognitive and problem-solving experiences. Edible oil produced by Kao, "Healthy Acona" and Drinking tea "Healthier green tea" give the intellectual experience value to customers that their statement of virtues appeal healthy oriented life.
- (4) "ACT": this is a behavioral experience value that appeals on physical behavior, life style and the mutual relation with people. "iPod" produced by Apple and "Mini-Couper" produced by BMW satisfy the customer's self-identity by the segmentation of life style.
- (5) "RELATE": this is a relative experience value that appeals on individual self-realization. Harley Davidson, a symbol of free spirit, has the customer's strong royalty that makes him tattoo on his arm and whole body.

Table I: Modules of Strategic Experience Value Provided by Schmitt, B.H.

Module	Contents of Experience Value
SENSE	Sensitive experience value to appeal on five senses
FEEL	Emotional experience value to appeal on feeling and mood
THINK	Intellectual experience value to appeal on creativity and cognitively
ACT	Behavioral experience value and life style to appeal on physical behavior
RELATE	Relative experience value to appeal on confirmative group and cultural group.

Note) Original explanation given by Schmitt, B.H. are partly changed in this paper

## 5. Case Study of Customer Experience Creation in Japan

Let us introduce four cases of experience value creation from Nagasawa, S., (2005).

### 5.1 INAX "SATIS"

"SATIS" of INAX shown in Figure 1 is a series of sensational sanitary ceramic products used in a toilet room, a washing room and a powder room. It is a toilet facility without a water tank whose design is impressive on customers' *Kansei*. When it was put in market, it was a very much sensational and very much influent product.

As "SATIS" changes the perspective of understanding things such as a toilet room is replaced as a hospital space, the conventional concept of a toilet room is recreated into another customer's value that can provide a unique value added product for customers.

Let us analyze a product under a framework of "customer experience" as a concept to create customers' value whether it gives any impression on customers or what kind of customers' value it creates. This analysis in Table II is also considering competitive advantage.



Figure 1 : INAX "SATIS"  
Source: INAX Corporation

Table II: Customer experience of INAX "SATIS" as Strategic Experiment Module(Nagasawa, S.)

Module	Customer Experience included in "SATIS"
SENSE	<ul style="list-style-type: none"> <li># Design making customers feel an aesthetic space</li> <li># High function peeling on customers senses</li> <li># Toilet space as a new living circumstance</li> </ul>
FEEL	<ul style="list-style-type: none"> <li># It makes customers percept clean circumstance</li> <li># Sense of relief is obtained</li> <li># ideal toilet space appraisable</li> </ul>
THINK	<ul style="list-style-type: none"> <li># Tanklessness widened a toilet space</li> <li># Sufficient coordination full of imagination</li> <li># Tankless washing beyond expectation</li> </ul>
ACT	<ul style="list-style-type: none"> <li># Toileting behavior is changed according full-automatization</li> <li># Toilet space providing to guests and friends</li> <li># Intellect toilet space</li> </ul>
RELATE	<ul style="list-style-type: none"> <li># Eco-design depending on social responsibility</li> <li># Appealing to customers by branding</li> <li># Building new social categories</li> </ul>

### 5.2 Nissan "X-TRAIL"

Nissan sells "X-TRAIL" shown in Figure 2 well since November, 2000 when they started its sales. They kept the top position of domestic sales volume in SUV (Sports Utility Vehicle) for 5 years till 2005. They sold totally 165,000 X-TRAILS in 170 countries and kept the top in the class in each of countries and expand sales volume this year. Its reason can be understandable since "X-TRAIL" was developed based on "Seven tools for New Product Planning."

Nevertheless, it is not persuasive if we result such a huge sales volume on its function and convenience.

It is essential to analyze elements and functions beyond "a hit vehicle". Therefore,



Figure 2: Nissan "X-TRAIL"  
Source: Nissan Motor Co.

Table III: Customer experience of Nissan "X-TRAIL" as Strategic Experiment Module (Nagasawa, S.)

Module	Customer Experience included in "X-TRAIL"
SENSE	# Design of rectangular
FEEL	# CM of a falling person stimulates on the psychology that a person plays a sport
THINK	# Astonishment and Thinking of washable interior in a car
ACT	# Events of "X-TRAIL JAM" makes people into outdoor sports "X-TRAIL"
RELATE	# Building a flexible fan club "X-TRAIL" of outdoor sports

let us analyze the "customer experience" that creates the customer value. On the other hand, we can image Cadillac, Porsche, and Ferrari as an luxury vehicle. But Nissan's "X-TRAIL" sticks on price 2 million JPY as the waiting customer's expectation. They take it into consideration that the price can realize customer experience as shown in Table III.

### 5.3 Canvas bug of small Kyoto company "Ichizawa Hampu"

Let us discuss about "Ichizawa Hampu," a veteran company of canvas product in Kyoto that is famous of producing and selling canvas bugs (Figure 3) all over Japan. According to the interviewing with the fourth owner Shinzaburo Ichizawa, Chief Executive Officer and his wife Emi Ichizawa, Board Director, let us analyze the secrete of Ichizawa Hampu behind its brand from point view of developing power and customer experience. Ichizawa Hampu is a famous Japanese brand talked as "Japanese Louis Vuitton," and has one shop and catalog sales with constantly three to four thousand orders.

As shown in Table IV Ichizawa Hammpu creates customer experience emphasizing on customers of young generation with under consideration of customers life styles, nevertheless it is a veteran company of a traditional industry in Kyoto, symbolized by natural sailcloth adhering craftsman art. The source of customer experience value



Figure 3: Canvas Bug of Ichizawa Hampu  
Source: Nagasaewa, S. (2005)

Table IV: Customer Experience of Ichizawa Hampu's Canvas Bugs as Strategic Experience Module (Nagasawa, S. (2005))

Module	Customer Experience owned by "Ichizawa Hanpu"
SENSE	# Brand recognition by visual labels # Visual touch of canvas # Careful finish of good supple texture
FEEL	# The long life of products creates attachment to products # Labels bring out nostalgia
THINK	# Careful craftsman art provides spirit of study
ACT	# Life style to take a good care of things
RELATE	# Customers' royalty created through re-upholstery service

creation of Ichizawa Hampu is summarized in three points of developing products; 1) their attitude of careful craftsman's work, 2) new discovery of traditional natural cloths for sailcloth products, and 3) feedback of customers' needs. That is, the development power of a company and the customer experience are inextricably linked.

#### 5.4 Football J1 Team "Albirex Niigata"

Let us discuss about Football J1 team "Albirex Niigata" that has incomparable big drawing power. It is spectacle and even impressive that every match can gather more than 40 thousand spectators who put on an orange uniform of team color as in Figure 4.



Figure 4: Emblem of Football J1 "Albirex Niigata"  
Source: Corporate profile

Table V: Customer experience of "Albirex Niigata" as Strategic Experiment Module(Nagasawa, S.)

Module	Customer Experience of "Albirex Niigata"
SENSE	# Enthusiastic Experience of 40 thousand fans without encountering it in other places # Visual experience of Orange Team Color
FEEL	# Passionate experience attaching to their own handmade team without any support of big companies and without any star players
THINK	# Experience of turning the negative image of Niigata to its positive image
ACT	# Festival experience once two weeks # Experience of unity of loud cheering by supporters
RELATE	# Experience of unity of supporters in their own home Niigata

Niigata is said unfit to any pro-sports. There is no big company that can be a sponsor and no star player. So nothing fits to pro-sports. From the viewpoints of customer experience we analyzed the phenomena of Albirex Niigata that is evaluated to be a "miracle." In the analysis we employed the talk at Waseda Business School and various interviews by media that Mr. Hiromukeda, CEO of Albirex Niigata gave and illustrated the efforts to create customer experience in Albirex Niigata.

From viewpoints of customer experience as shown in Table V, it is very effective that Albirex Niigata succeeded in combining between the enthusiastic space of 40 thousand fans and experience to appeal their love of the home town. This success gave us the knowledge that the frame of customer experience is effective not only for developing products but also for sports business and entertainment industry. Of course, Albirex Niigata is not a general product but it is meaningful that the frame of Albirex Niigata makes us understand how to plan and create intangible events if we can expand and apply the meaning of things to events. In other words, Albirex Niigata is one of cases where the frame of experience value is illustrated most clearly.

#### 6. Conclusion

In the conclusion, let us summarize the new relation of customer experience with conventionally functional benefits and the role that the customer experience plays on the basis of analyses of the above-mentioned four cases.

It is effective in analyzing relative relation between functional benefits and customer experience to discuss about what can be provided and what can be created from the view points of creating customers' value.

From viewpoints of functional benefits, for instance, a toilet room provides improvement of functionality and usability of the toilet room as a customer value. Also, the depth and breadth of assortment by providing various options that improve customers' selections by their own tastes and by unifying design that improve image can be understood to create value as same.

From viewpoints of customer experience, for example, the total space including a toilet room creates customer's value nevertheless the toilet room itself creates a customer's value. That is, providing with the space and atmosphere of a toilet room that are different from conventional ones, it creates customer value by appealing customer psychology and *Kansei* to change the recognition of a toilet room totally and radically. This means to create totally new customer value that influences customer' life style.

As mentioned above, on the comparison between customers' values created by functional benefit and customer experience, these values have complimentary relation even though there are some duplicates. The functional benefit of a toilet room provides customers' value by improvement of functional and beneficial aspects but customer experience create customer' value by improving psychological aspects of customers' *Kansei*, that functional benefit cannot provide. In other words, the functional benefit is to give physical and materialistic satisfaction and the customer experience is to provide psychological and *Kansei* satisfaction.

Figure 5 illustrates the relative relation between functional benefit and customer experience. These are interpreted that both have their own field and are in the complimentary relation. It should be noted that supporting the complimentary relation can be understood from MOT approach. That is, when MOT approach realizes an innovative technology (development of direct valve washing and so on) it provides functional benefit (realizing of small space with tanklessness). Customer experience (Image change of a toilet room) influences on customers' mind by inventing innovative technology and creates value to influence *Kansei*. The complementarity between functional benefit and customer experience creates totally different and innovative customers' value (hospitality space of a toilet room).

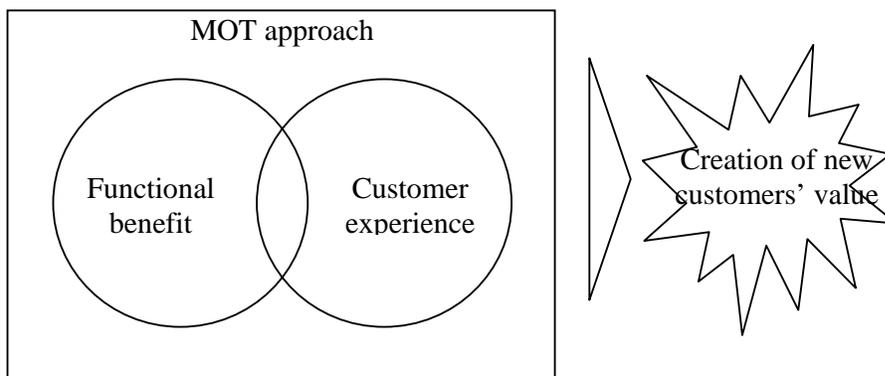


Figure 5. Image of complimentary relation between functional benefit and customer experience (Nagasawa, S. (2005))

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