

A Case Study on Applying Consumer Needs to Product Development

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Abstract—Government policies and business management strategies to support firms are still a lack of practical solutions to innovate and develop their new products. The purpose of this study was to present a sustainable methodology to help enterprises develop new products and be successful. Many scholars are indicative of importance of interactions between a company and its customers. Customer needs must be precisely determined and it is necessary that these needs are monitored throughout the course of the innovation. By focusing on customer needs, companies could survive in a competitive market environment. Despite of the fact that most companies are aware of customer needs is critical, but little worried about how to apply customer needs. Therefore, we proposed ‘Consumer- centered Product Development Methodology’ as a process of new products development interacting with customers.

Keywords—Consumer needs, policy strategy, support corporation, product development

I. INTRODUCTION

SUCCESS of companies in the midst of the rapidly-changing market depends on how good they are at figuring out needs of consumers. Multiple researches have been talking about how important it is for the companies both to make good use of consumers’ evaluations and to accept the consumer needs when they try to develop products. Customer Relationship Management has become a leading business strategy in highly competitive business environment.[5] Customer interaction during certain stages of the new product development process has a positive impact on new product success. The characteristics of the involved customers have a significant effect on new product success.[1] Consumers are the center of all business activities as a final determinant of the market.[2] A research suggests that companies can achieve the goal of design by focusing on the consumer and satisfying communication process can be achieved between the consumer and the product throughout analysis on consumer’s needs that are trying to find the product meets their emotional wants.[3] These abilities of the companies to read any hidden needs of the consumers and to apply them to their products and services have been settling down as the core

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competence of the companies.

3M conducted a survey targeting more than 100 companies in connection with this question, ‘What is the most essential marketing strategy in these times that leads the company to success?’, and over 90% of the respondents answered that knowing the consumers’ needs as well as segmentalizing and positioning them are what make company to success essentially. In other words, the companies hardly achieve success in whatever they deal with unless they have good understanding on the consumers.

Various policies and business management strategies are created for supporting enterprises to research and develop products as well as access them to market. Even so, all those supports are still considered not to be practically helpful in relation to making a market success of a business.

In order to secure the consumer satisfaction and be more competitive in a market, the companies should be able to look right into details of the consumer needs. Also it is necessary for companies that introducing new R&D planning methods which could be applied effectively their R&D activities.

This study aims to propose a methodology that would reflect the consumer needs during the product development that could be a practical help to the companies as a national system. The study extracted what should be improved by applying the methodology to the companies. The methodology consists of these four stages as follows. (1)Through consumers’ evaluations on the product made by a company, (2) the company figures out consumer needs and (3) applies them to the product. (4) Lastly the improved product gets investigated and evaluated again by the consumers. After all, the ‘Consumer-centered Product Development Methodology’ leads the company to fulfill their goals to develop products that the consumers would want to buy as giving the consumers chances to choose products that would meet their needs most satisfactorily

II. METHODOLOGY AND APPROACH

Consumer needs has a close relationship with purchasing a product. Consumers purchase the product as a means of meeting their needs, namely, they buy the value of the product formed by those needs.[4] The ‘Consumer-centered Product Development Methodology’ is understood to be this win-win strategy of the consumers and the companies, and with the help of the methodology, the companies go through a process of analyzing and reflecting the consumer needs and consequently, the

methodology helps the companies to come up with products that would be needed by the consumers. The methodology is considered useful in many ways in that not only does it investigate the products through the consumer evaluations before product launches but also it invites potential customers to purchase by advertising the product through some experience marketing events.



Fig. 1 Consumer-centered Product Development Methodology

At Stage 1, the companies receive feedback from the consumers in relation to their products. Groups of consumers are extracted depending on types and properties of the products, and through diverse research methods, the companies find out what they do to improve the qualities and the performances of the products. Research subjects are selected depending on the demographic characteristics of the target consumer groups of the products (gender, age, occupation and others) as well as how frequently the consumers use any other similar products. In the end, through the different research methods, the companies extract the consumers' evaluations on the products.

The second stage is basically the key step for the companies to make positive changes in the products, and at this stage, as referring to how the consumers have evaluated the products, the companies find the consumers' needs. The companies look into the consumers' evaluations in detail in order to actually apply what the consumers have said about the products to the product development. Of diverse opinions, the companies focus on ones that feel acceptable and get along with trends in the markets as well as what they can improve in a short time, and finally discover the consumers' needs.

At Stage 3, the companies apply the consumers' needs to the products and make improvements. The companies are engaged in the product development by themselves or if necessary, they work with experts and design products that could be commonly used by the public.

Stage 4 is a chance for the companies to receive another feedback from the consumers in relation to the improved products and there, all the tests on the products are conducted before the launches. The companies ask the consumers to evaluate the quality of the improvements, the purchase desire and others in comparison to those of the initial products, and as a result, they can understand market preferences.

III. RESULT AND DISCUSSION

The study practised the methodology with a total of five companies that were selected as the research subjects. The research subjects were collected based on product types and opinions from the experts in the fields, and the study asked the research subjects for the participation depending on eligibility and suitability.

In order to gather opinions at the stage of the consumers' using the products and providing feedback on them, the study

applied this following method. The consumers used the products in their own ways and evaluated the products on the given questionnaire. It was a method appropriate enough to compare the results before and after the consumers use the products. The study had intensive conversations about the products with a few respondents through FGI, and was provided with information on advantages and disadvantages of the products. Other than what has been mentioned so far, the study used CLT, and invited the groups of the consumers to the unconstrained evaluations on the products.

The evaluations conducted by the groups of general consumers and experts in distribution mainly dealt with designs, functions, price acceptability and others. The study analyzed and gave shape to the consumers' evaluations so that any useful information from the consumers could be applied to the improvement of the products. The products had to be improved in a short period, and that made it impossible for the study to accept every piece of the opinions.

However, such opinions that were not used for the products did turn out to be a help to the study when it tried to establish directions for how the companies develop the products. The improved products were re-evaluated by the current evaluators in regards to the product satisfaction. As part of the evaluation to see if the product is good enough to be actually used by any potential customers, the current evaluators responded that the product had been improved not only in quality but also in reliability.

IV. CONCLUSION

The methodology was applied to the five companies, and after all the stages were completed, the satisfaction research was conducted. 4.8 on a 5-point scale were gained which proved the high level of the companies' satisfaction with the methodology. The consumers who participated in the product development also came up with the great satisfaction with the improved products. In order to have understanding on the consumer needs, the study used indirect methods such as the questionnaire, interviews and others but still, in the future, the consumers should be given a chance to actually take part in the product development. In addition, as most researches targeting general consumers do, this study also lacked a detailed, precise investigation on attributes of the technology. Add to that, the short research period is considered another limit of the study despite the fact that the study was designed as part of a plan to support the companies. In terms of any following researches, we should collect opinions from technology experts to advance the product development methodology and also figure out how to apply the consumer needs to the product development on short-term, middle-term and long-term bases.

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