



Product Development Management in Improving the Competitive Advantage of SMEs

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ABSTRACT

The role of product development management is very important in improving business sustainability. When there is market saturation in existing products, it can be overcome through the emergence of new products, in the sense of expanding and supporting existing products. PKM activities aim to help MSMEs understand product development management in running a business, and maintain survival in the future. Activity partners are engaged in handicraft businesses, with the mada mute brand that provides handicraft products made from wool and beads. In its activities it faces various problems, especially in carrying out product development management, this is due to the lack of partner knowledge about matters related to product development PKM activities aim to help increase partner knowledge. The method offered in this activity is online training/socialization through Zoom meetings. The material to be presented includes: introduction to the concept of product development; product development process; new product development strategy; product life cycle strategy. The results of the activity show that the problems that arise in partner businesses are resolved, partners can understand the importance of new product development for business survival.

Keywords: Management, Product Development, SMEs

1. Introduction

People's tastes and demands are always changing and there is no satisfaction, so companies are required to have a strategic plan to solve the problem of consumer desires. Companies must be creative and critical in dealing with current market problems by coming up with new products, product modifications, and product brands through market research and development efforts in meeting consumer needs. Developing new products or creating new products is a task that is often forgotten.

The number of products that emerge results in tremendous competition which causes a product to not last long and is classified as a failed product. What causes the product to fail is that even though the company launches a good idea, the company may overestimate the market (Al-Mohammad, 2010). In addition, poor design, launching at the wrong time, too high a price, and poorly advertised can affect the product's image in the eyes of the public. If the new product launched by the company fails, the consequences will turn back on the company (Suwannaporn & Speece, 2010). The company will lose a large amount of money if the product cannot be accepted by the public due to many shortcomings and too heavy competition. So if the company has enough capital, it will be threatened with bankruptcy and cause other company products to fail. With product development management, it will provide solutions and choices for consumers' lives and is also a major source of growth for businesses.

Product development management is a strategy for the growth of a company by offering new and modified products to the current market (Kotler & Keller, 2016). Product development is the process of discovering ideas for new goods and services and making them into products that can be sold on the market (Simamora, 2010). Product development is a management activity to deal with product changes for the better in the future, resulting in greater satisfaction (Assauri, 1987). New product development is the process of finding new ideas to increase the value of old goods by making changes to these products (Malau, 2018).

Product development management is a difficult thing to implement because it has many obstacles, both from within and outside the company. Management decisions in developing products are important so that the company does not depend on existing products. Many companies fail in the product development process due to unsolved obstacles. The failure of this process makes it difficult for the company to compete with competitors who have successfully passed their obstacles. Product development in a company is something that must be done in order to survive and develop. This development must include determining quality, size, shape, attractiveness, naming, marking, packaging, and others according to consumer tastes. Studies explain the benefits of product development will have an effect on competitive advantage and financial success NPD resources and capabilities (Chen et al., 2010; Chou & Yang, 2011).

The partner who is the place of activity is Mrs. Siti Resmada engaged in the creative industry of handicrafts, which is located at Jalan porum Minah Bakti Tanggul Jaya RT.006/014 Banten Village, Kasemen District, Serang Regency, Banten Province. From the results of observations made to partners about product development management, there are major problems in the management of developing existing products. This has an effect on the difficulty of partners to excel from competitors. While the incoming competitors are very many,. To maintain business survival and maintain existing products, for this reason, the Pkm Untar team feels the need to transfer knowledge to partners in maintaining survival through the introduction of new product development. For this reason, the main problem to be solved is how to optimize partner knowledge about matters related to new product development (Im & Workman Jr, 2004).

2. Methodology

2.1. Steps/Stages of Implementation

Socialization activities are carried out to provide briefings to partners, in understanding new product development. Many things are factors for partners to develop new products. Starting from finding ideas or ideas until the product is launched to the end consumer. To carry out this socialization activity, there are several steps that need to be taken.

- a. PKM implementers prepare materials that will be delivered to partners
- b. PKM implementers contact related parties, namely business owners to ask permission to conduct socialization.
- c. PKM implementers coordinate with the owner to participate in socialization activities.
- d. The PKM executor divides the tasks with students who help with the activities.
- e. PKM implementers deliver socialization material through lectures, discussions, and questions and answers. Online through zoom meeting.
- f. PKM implementers explain what must be done in product development.
- g. PKM implementers ask partners to ask questions if they do not understand the material presented.
- h. PKM implementers respond to partner responses about the material that has been delivered

3. Results and Discussion

3.1. Partner Business Profile

PKM activities are carried out to Partners, namely Mrs. Siti Resmada, as the owner of the Mute Mute Knitting business. Mrs. Siti Resmada herself in starting a business is motivated by a passion in making various knitting handicrafts which are currently also developing to other handicrafts with a combination of knitting. Mita's business domicile is in Kp. Tanggul Jaya. Karangantu RT / RW 6/14 Serang City, Banten. Various types

of knitted products are made ranging from bags, tablecloths, knitted clothing, household accessories and others. Here are some examples of Mrs. Siti Resmada's Mute Knitting craft products:



Figure 1. Partner Products

3.2. Model of Science and Technology Transferred to Partners

This community service activity is related to providing knowledge about things that need to be considered by product development management partners (Durmuşoğlu & Barczak, 2011). For this reason, the science and technology model delivered to partners includes:

- a. Key points to consider for success in developing & introducing new products
 - 1) Make the necessary long-term commitments to support innovation & new product development
 - 2) Using a specialized approach that is driven by the corporate objectives & key strategies of the company making experience as an asset to achieve and maintain competitive advantage.
 - 3) Establish an environment, organizational structure management style and top management support
- b. Key to successful new product introduction
 - 1) Study consumer characteristics carefully
 - 2) Make the best product possible
 - 3) Vision of future market conditions
 - 4) Strong leadership commitment
 - 5) Commitment to new product development
 - 6) Build communication with customers
- c. Five characteristics used to explain the rate of acceptance and deployment of new products
 - 1) Complexity; the degree of difficulty associated with understanding & using the new product.
 - 2) Compatibility; the degree to which the product is consistent with existing values and knowledge of the product, past experience and current needs.
 - 3) Relative advantage; the degree to which the product is perceived as better than existing products.
 - 4) Observability; the degree to which the benefits of using the product can be observed & communicated to potential customers.
 - 5) Trialability; the level at which the product can be tried to a certain extent.

Delivery of training materials is carried out online through Zoom meetings. Documentation during the implementation of socialization is:



Figure 2. ZOOM Activity

At the end of the activity, a pretest and posttest were conducted, regarding the delivery of the activity material that had been carried out. Partners were asked to answer a questionnaire about whether they understood the material that had been delivered after participating in the socialization activities. Using a Likert scale with the provisions: very do not understand (5), very understand (4) understand (3), quite understand (2), do not understand (1). Very do not understand Based on partner answers from filling out the pre-test and post-test in table 1.

Table 1. Recapitulation of Partner Answers

Indicator	Category	Answer	Percentage (%)
The material about the introduction of product development management strategies makes mom understand	Not very clear	0	0
	Does not understand	0	0
	Understood enough	0	0
	Understood	0	0
	Understand very well	100	100%
The material about considerations in	Not very clear	0	0
	Does not understand	0	0
	Understood enough	0	0

Indicator	Category	Answer	Percentage (%)
product development	Understood	0	0
makes mom understand	Understand very well	100	100%
The material about the success of product development makes mom understand	Not very clear	0	0
	Does not understand	0	0
	Understood enough	0	0
	Understood	0	0
	Understand very well	100	100%
Material about the characteristics of product acceptance and deployment levels	Not very clear	0	0
	Does not understand	0	0
	Understood enough	0	0
	Understood	0	0
	Understand very well	100	100%

The assessment showed that partners displayed a solid grasp of the material based on their responses. All partners were able to demonstrate a 100% understanding of the information provided.

4. Conclusion

The partners are trained on how to manage product development strategies by engaging the partners. They are updated on the background information, critical issues that are supposed to be noted when developing and launching a new product, and, finally, the essential components of introducing a new product. It also looks to cover all five characteristics that determine the level of acceptance and diffusion of new products, so partners can be brought up to full speed in the subject matter. During the training sessions, partners have shown interest and enthusiasm while the PKM team shares the content. The partners have participated actively in the socialization process by joining in the interactive discussions, asking questions, and seeking clarifications from PKM implementers. Such exchange enables the partners to clarify their doubts or request further explanation of material being presented.

The responses from the partners prove that they understand very well what is taught. It goes on to show that the learned material is well digested, evidenced by their ability to respond correctly to the questions. The quantum of understanding among the partners is captured by the fact that 100 percent of them understand the information passed. These trainings, in general, have been instrumental in equipping partners with relevant knowledge and skills on how to manage the development of products effectively. Interactivity of sessions creates a conducive learning environment where partners can actively engage with the content. With such efforts, partners shall be better tooled to negotiate the challenges and opportunities involved in successfully introducing new products.

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