STUDY ON NEW PRODUCT DEVELOPMENT AND NEW PRODUCT STRATEGIC MANAGEMENT

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Abstract - The strategic instruments in this paper try to present a integration of the best industrial practices in this arena, and are the consequences of high grade of mutual agreement among the different research efforts. Our motive is to deliver guidelines for managers to recognize the opportunities for enhancing the quality of their NPD processes and to chalk out a map for scholars to recognize the fruitful areas for research and new product development process includes the various stages involved in this NPD process.

Keywords - New Product Development(NPD), New Product Strategy(NPS)

INTRODUCTION

The significance of new product development has emerged considerably since last several decades and nowadays, it is the key element of competition in many industries such as automobiles, biotechnology, industrial and consumer electronics. Most of the times, companies' annual sale relies on the product introduced by the company within the last few years. However, the failure rates of new product are still very high, leads to decline in company's annual sale. Due to globalization the restriction to the free flow of goods and services have reduced dramatically since the end of World War II. This free flow of services and goods leads to a stiff foreign competition. The more competitive market resulted more difficulties for companies to separate their product on the grounds of cost and quality. Consequently, new product development has occupied a meaningful place in differentiation of product.

These facts have initiated a broad deal of research on how to cut the corners of new product development process. This research is large and vast, emerging in various aspects as wide ranging as strategic management, engineering and marketing. The motive of this paper is to review the researches, previously held on managing NPD process, and to finds out the best suitable framework for NPD. Our focus is on, how the firm can enhance the probability of new product's success, stressing the management o projects once the ideas have been proposed.

NEW PRODUCT STRATEGY(NPS)

Before beginning the NPD project, companies should chalk out its clear objectives and formulate new product strategy(NPS) to accomplish the objectives. The objective of this stage is to provide guidelines for new product efforts. It outlines the strategic business requirements that new product should meet with, and these originated from the corporate objectives and strategy of the organization as a whole. These business requirement issue duties to be performed by new product, which in turn are affected by the desires of the industry. Whereas, a fir's strategy must deliver a clear understanding of the target or objectives for firm's new product program, and should indicate the return-on-investment(ROI) projected such that contribution of new product to corporate goals is clearly defined. The life span of a product has been shortening as the inventions of rivals make the prevailing product obsolete. In order to compensate the development costs and make fiscal return in an environment described by a quick product degeneration and market disintegration, a company's new product development must cater two crucial objectives:

(1) Maximize the fit-between customer requirements and product characteristics, and
(2) Minimizing time-to-market.

This can be further explained as below:

1. MAXIMIZE FIT WITH CUSTOMER REQUIREMENTS AND PRODUCT CHARACTERISTICS: For a new product to carve such a niche in competitive market, it has to match customer requirements related to new features, superior quality, and suitable pricing. Apart from the significance of this imperative number of studies have been penned down the dearth of fit between new product attributes and customer's expectations as a major cause of the failure of new product. To cite an example, Philips CD-Interactive home entertainment system failed because of mismatching of product with its target customer's requirements. The usage of product was not simple and easy and the product was extremely expensive and required approximately one to three hours training and could withstand the competence of its rivals, Sony and Saga.

2. MINIMIZE TIME TO MARKET: Minimizing time to market or cycle time is considered as important for numerous reasons. A company that is unable to keep right pace with fast moving market is unlikely to fully amortize the developmental cost. This phenomenon is particularly common in dynamic industries such as electronics, where the maximum

duration of product's life is ten to twelve months. Sometimes, companies that are slow to market face real obstacles that when they introduce the new product to market, market demand for that particular product has already moved on the next generation of products.

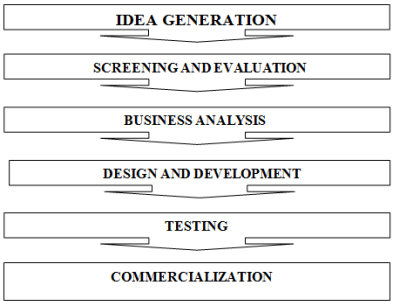
Companies having short cycle of time are more likely to be the first to introduce their product that embodies new technologies. As their target is to grab the first mover advantages. There are lot many opportunities that first movers can grab like brand loyalty among consumers, preempt scarce assets, etc. So, the time to market for product should be minimized as if the firm wants to attain these opportunities.

NEW PRODUCT DEVELOPMENT

The NPD process involves the activities done by the firms during the development and launching of new products. The new product that is introduced on the competitive market passes through a series of stages, starting with initial product concept or idea that is evaluated, developed, tested and launched on the market, according to a study conducted by Booz, Allen and Hamilton in 1982. This series of activities can also be seen as sequence of collecting information and evaluating stages. Following this process of collecting information and evaluation can lead to improvements in new product decisions and minimizing the risks and also reducing the exploitation of resources committed to product's failure. The BPD process varies from industry to industry and company to company. Detailed analysis should be done before applying such strategies to a firm.

Many researchers and scholars have tried to develop a model that the target and introduces perfect stages of NPD process. Numerous detailed studies of NPD have been taken place, among them the best known is the Booz, Allen and Hamilton(1982) model, it is also known as BAH mode, which is the ground for other NPD system that have been put forward. This globally recognized model emerges to hold all of the fundamental stages of models found as documented. It is based on detailed surveys, in depth interviews, and case studies. It emerges as a ground and most suitable representation of current practices in industry.

STAGES INVOLVED IN NEW PRODUCT STRATEGY:



According to Booz , Allen and Hamilton 1982, some kind of formal NPD process must be followed by the companies if they want the success of their product.

1.1 IDEA GENERATION: After mapping out a clearly defined NPS for NPD, the next stage is idea generation, where every stage of idea generation takes place like as its emanation, development and maturation of concrete idea. After assigning the market and segments based on the NPS it wishes to target, the firm had better map out and hold the ideas to grab opportunities, wherever they find. According to the study held by Booz, Allen and Hamilton (1982), a had better generate at least seven ideas to finalize one successful.

The main purpose of this stage is to finalize the most suitable idea that have potential to meet all the objectives of new product. There are plenty of sources as well as various methods to produce ideas. The firm can get new ideas from internal sources (i.e., employees, managers), external sources (i.e., customers, rivals, distributors, and suppliers), and from enacting formal research and development. Some methods like brainstorming, morphological are mostly employed methods for creation and evaluation of ideas. Consumers of product can be the most valuable source for searching new product ideas.

1.2 SCREENING AND BUSINESS ANALYSIS:

While the screening and business analysis, both are given as two separate stages in BAH model, we will consider them as a single stage to simplify the framework. In this screening stage, analysis is done in initial stage based on NPS, resources and its rivals and competitive market. Contrarily, in the business analysis stage, ideas are judged using quantitative performance criteria. After pondering over ideas mentioned in above said stage, one idea is generalised and finalised. Making and finalising of good idea is crucial for future health and success of the business. The point is that product development costs increase considerably with each successful passage of a stage in NPD process

After screening, business is the stage in which the details of product are defined and verify the idea's potential before spending big chunk of money.

Analysing the market in inadequate way and dearth of market research, moving directly to developmental stage from idea generation without any detailed investigation, failure to devote proper time and money on each step, are the common themes of product failure.

Whereas, a review of costs, estimated sales and estimation of profit of new product are undertaken to evaluate whether these factors satisfy the company's objectives at this stage then it is allowed to move on to developmental stage.

The final component of business analysis is action plan. A full detailed action plan is developed for

further stage. This stage holds its crucial role in whole process because this stage will open door to full fledged development program.

DEVELOPMENT: On the successful completion of last stage, the new product team now moves to further stage named development stage, which is consisted of activities that range from prototype development to volume ramp up and test marketing. It is estimated that approximately 40 percent of the total time is consumed at this stage and also this stage swallows a third of total outlay. In this stage, the plans are converted into deliverable. What is important at this stage is to speed up the launching process so that through testing we can evaluate that whether mew product matches customer's requirements and also pen down their feedbacks and also notice their response to new product. One thing that cannot be overlooked is that it is of utmost necessity to take into consideration the competitive advantage so that the company can enjoy the revenue generated from new product as soon as possible and it will also reduce the impact of changing market environment. So during every stage of developing product the team should regularly reassesses the market, and the position as well as technology and product so that it can enhance the chances of success of the new product.
The development of new product may take several months or even years so meanwhile this time customer's requirements, size of target segment may change altogether, so it is of utmost necessity to take customer's feedback and its impact on every stage. So that it may be ensured that new product is spending toward the correctly defined target.

TESTING: The motive of this stage is to deliver final and total validation of the whole project, the commercial potential, its production and last its marketing. As testing and development, both stages are inseparable, during every stage of development testing is being conducted. The significance of this stage may highly minimise the chances of failure of product. As this stage holds the ability to reveal or outline the faults that could cause failure of the product. This stage is completely consumer oriented. How well the testing is being conducted? And whether it is done or not? are interrelated with new product's success. Different types of testings are being conducted i.e., concept testing, prototype testing, test marketing, all the tests should be conducted to get the surety about new product's success and testing should not be limited to this stage only, rather than it should ne kept going till last stage of NPD process.

COMMERCIALISATION: After the successful completion of market testing, now its time to move to commercialisation stage. During this stage the production of new product is built up on a commercial level. The launching of new product involves several decisions to be taken-

1. When to launch new product? (it includes decisions relating to evaluate the exact correct time for invasion of product in market. It means whether company want to enter first in the market to gain first mover advantage or parallel entry to compete with its rivals or lateral entry to learn from rival's mistakes, etc.)
2. Where to launch the product? (It includes decisions relating to target region)
3. How to launch the product?

ACKNOWLEDGEMENT

The new product's success still exists as a massive challenge for companies. As every company is aware of the fact that the success of new product may influence company's future prosperity a lot. So, the companies are regularly searching the ways to rebuild, reshape, redesign their NPD processes for better results.
The framework prescribes that in order to gain success, NPD firm must have a clearly defined strategy and clearly defined goals.
Consumers voice is considered as the most valuable factor in the whole process as well as in success of new product, so the firm should pay dedication towards them.

REFERENCES

[1] Balakrishan, A (1998). Concurrent engineering : models and metrics. Master dissertation, Mcgill University, Canada.
[2] Belliveau, P., Griffin, A., & Somermeyer, S.(2002). Meltzer, R. in THE PDMA toolbook for new product development, New York: John wiley & Sons.
[3] Booz, Allen, & Hamilton. (1982). New product management for the 1980's. New York: Booz, Allen, & Hamilton, Inc.
[4] Crawford, C. (1987, 1997). New product management. (2nd Ed. & 5th Ed.). Illinosis: Richard D. Irwin.

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