THE ROLE OF RESEARCH IN THE PROCESS OF NEW PRODUCT DEVELOPMENT TO REDUCE MORTALITY RATES

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Abstract

At the centre of marketing is consummating exchanges which necessitate the existence of a product or service. The product constitutes the mechanism for attracting revenue and is therefore important for which management attention must be devoted for continuous development and nurturing. This paper examines the role of research in the process of new product development with a view to reducing the new product mortality rates. It highlighted issues relating to the need for marketing research, what is a new product and why do they fail and the specific roles of research in the development process. It recommends the adequacy of market demand for new products, satisfaction of key financial criteria and compatibility with environmental standards among others, in ensuring that the goals of management in new product development are realised.

The American Marketing Association offers the following formal definition of marketing: Marketing is an organization's function and a set of processes for creating, communicating and delivering value to customers and for managing customer relationships in ways that benefit the organization and its stakeholders. The Institute of Marketing, London defined marketing as "the management process responsible for anticipating, identifying and satisfying consumer requirements profitably". It can be inferred from these definitions that the customer or the consumer occupies a central position in marketing and at the core of marketing is the exchange process that must be facilitated. Coping with the exchange process calls for a considerable amount of work and skill. Marketing Management takes place when at least one party to a potential exchange thinks about the means of achieving desired responses from other parties. Kotler and Keller (2005) defined Marketing Management as "the art and science of choosing target markets and getting, keeping and growing customers through creating, delivering and communicating superior customer value". "Marketing mix" is the phrase first used by Neil Borden of the Harvard Business School to denote all those variables which are in the control of a company and which together constitute the approach of a company to its customers. He further stated that "marketing mix" refers to "the appointment of effort, the combination, the designing and the integration of the elements of marketing or "mix" which on the basis of an appraisal of the of the market forces, will best achieve the objectives of an enterprise at a given time". Neil Borden developed a list of 12 elements which was later reformulated into the 4 marketing mix elements otherwise known as the 4 Ps of product, price, place and promotion. Eventually the 4 Ps of the marketing mix became an indisputable paradigm in academic research, the validity of which was taken for granted. For most marketing researchers in large parts of the academic world it seems to remain the marketing truth even today.

This paper examines the role of research on a new product development process in marketing.

What is Research in Marketing

Decision making in marketing is based on facts not intuition. If intuition is present, it is subjected to objective analysis as far as possible. Therefore one of the major bases for the formulation of the marketing strategy is marketing research.

In fact, this is well put by James (1972) when he said, "Research, forecast, plan and control is the sequential path of scientific marketing". This means that marketing research must come before the plan and control. This is in line with the marketing concept in which the ultimate consumer is considered first before undertaking the production of a product.

Etzel, et al (2001) defined marketing research as "the development, interpretation and communication of decision–oriented information to be used in all phases of the marketing process". This definition has two important implications:

1. Research plays a role in all three phases of the management process in marketing, namely planning, implementation and evaluation.
2. It recognizes the researcher's responsibility to develop information, which includes defining problems, gathering and analyzing data, interpreting results and presenting the information in such a way that it is useful to managers.

The Need For Marketing Research

Competitive pressure, the cost of making a strategic mistake and the complexity of both domestic and foreign markets dictate that a firm must have access to factual and timely information. The following are four marketing issues that are frequently researched:

Markets and Market Segments: Managers must suspect that a need exists in the market, but intuition is usually not sufficient to justify a decision that may require the investment of millions of naira. Research can be used to clarify the need, identify and describe exactly who has it and determine the strength of the need in the various segments.

Products and Brands: Even when the manager is confident that the need exists, it is not clear what form a product should take to satisfy the need. Having consumers evaluate alternative designs will help the manager. Some brands and company names are also extensively tested, and some are not but should have been.

Advertising: Before it ever appears in public, marketers want to determine if an ad can attract attention, effectively communicate the intended message and be remembered. Advertising research is an industry in itself, with firms that specialize in everything from investigating ideas for ads to testing the final versions.

Expectation and Satisfaction: It is important to know what customers expect, which is influenced by what marketers have promised in their offers, and how well those expectations are being satisfied. Firms need research to quickly identify problems and solve them before they result in lost business.

What is a New Product in Marketing

It is often said that nothing happens until somebody sells something. This is not entirely true. First there must be something to sell – a product, service, person, place or idea. And that "something" must be developed.

Just what is a new product? Must a product be revolutionary, never before seen, before we can class it as *new*? How new a product is affects how it should be marketed. There are numerous connotations of "new products" but we will focus our attention on three distinct categories of "new product".

Products that are Really Innovative – Truly Unique: Notable innovations during the 20^{th} century range from the Zipper to the photocopy machine and, of course, the computer. Still to be developed products in this category would be a cancer – cure and easily, inexpensively repaired automobiles. Any new product in this category satisfies a real need that is not being satisfied at the time it is introduced.

Replacements that are Significantly Different: Replacements must be significantly different from existing products in terms of form, function, and most importantly product's benefits provided. The electric vehicle, when available, will fall into this category.

Imitative Products that are New to a Particular Company but not New to the Market: To maximize sales, a company may simply want to capture part of an existing market with a "me too" product.

Ultimately, in general and as a matter of principle, whether or not a product is new depends on how the intended market perceives it. Thus if buyers consider a product to be significantly different from a competitive in some relevant characteristic such as appearance or performance, then it is indeed a new product.

Why Do New Products Have Problems and Sometimes Fail

For many years, the "rule of thumb" has been that about 80% of new products fail. However, because of dissimilar definitions of *new product* and *failure*, the statistics often vary from one study to another. According to Etzel, et al (2001), one company that tracks new – product introductions placed the rate of failure at even higher than 80%; according to another study, even the best companies suffer 35% mortality for new products; and finally, an examination of 11,000 new products and services discovered that 56% are still on the market 5 years after being introduced; of course, some of those products still on the market undoubtedly are on the brink of failure whereas others are hugely successful. So why do new products fail? A number of reasons can be given as to why new products fail. Hopkins and Bailer (1971) listed seven reasons why new products fail. These are inadequate market analysis, product deficiencies, poor timing of introduction, technical or production problems and lack of effective strength or reaction. Davidson (1977) identified six reasons of marketing failures which originate from managerial behaviors. These include inflexible objectives, fear, vested interests, arrogance and absorption in the process. Etzel, et al (2001) on their part identified four reasons for new product failures. These are "new products" not being different from existing products, failure of the new product to deliver on its promise, being perceived as offering poor value in relation to its price, poor positioning and lack of marketing support.

On our part, failure to appreciate customer wants is the main reason for the failure of new products. Without sufficient patronage from customers a product is bound to fail. Therefore it is very important for management to correctly identify the consumers' wants. These wants which were originally identified at the beginning of the new product development, must still be present during and after the commercialization of the product. Also it is essential that throughout the life cycle stages of the product, management must continue to find out, through research, if the wants still exist. Finally, where the facts exist that the needs have changed, the offer must be modified to meet the changes in the wants. This to our mind is the basic ingredient for new product success.

The New Product Development Process and the Corresponding Role of Research

There are certain stages that the development of a new product must pass. Although, flexibility will not be out of place, certain stages in the process must not be omitted. According to Foxall (1981), there are essentially three stages for new products development. These are: The generation and evaluation of ideas for new products, Market analysis in the context of corporate strategy, and Product creation and pre – launch testing. Etzel, et al (2001) identified six stages of the new product development process, namely: Generating new product ideas, Screening ideas, Business analysis, Prototype development, Market tests, and Commercialization.

On our part, we are in agreement with these six stages for its being analytical and all – inclusive. These stages and the corresponding role of research are discussed below. However, at each stage, management must decide either to move on to the next stage, abandon the product or seek additional information.

Generating New Product Ideas: New product development starts with an idea. This is the stage where such idea is contemplated. The idea can originate from sources such as consumers, employees, owner – managers, associated companies, etc. Companies must always encourage and stimulate a flow of new ideas.

Role of Research: This will be to assist in the generation of more factual ideas through conducting market gap analysis, long – range market studies, competitors' offering analysis, etc and submitting their findings to the New Product Management Team.

Screening Ideas: At this stage, new product ideas are evaluated to determine which ones warrant further study. Typically, the new product management team first relies on experience and judgment to screen the pool of ideas. The objective here is to eliminate those ideas which are not consistent with the vision, mission, policies and objectives of the company.

Role of Research: This is to assist in the provision of specific information with which to benchmark the pool of ideas. This is with a view towards ensuring that all incompatible ideas are dropped at this stage.

Business Analysis: A surviving idea is expanded into a concrete business proposal at this stage. Here particular attention is paid to identification of product features, production and technical feasibility, product line analysis decision, estimation of costs and market demand, nature of competition as well as the likely profitability of the product. At the end of this stage, a product planning document is compiled. This is usually a development proposal which is submitted to management for approval. If accepted, management lays down the course of action to be followed henceforth.

This stage is important because at subsequent stages, the company begins to incur costs. Therefore, the evaluation must be carried out thoroughly.

Role of Research: Research will assist to carry out studies in the identified areas of analysis. This is with a view to generating factual findings and providing valuable information to the new product management team.

Prototype Development: Where the results of the business analysis are favourable, then a prototype (or trial model) of the product is developed. In the case of services, the facilities and procedures necessary to deliver the new service are designed and tested. But in the case of products, a small quantity of the trial model is manufactured to designated specifications. Technical evaluations are carried out to determine whether it is practical to produce the product in large quantity. Further, laboratory tests are conducted to judge whether the proposed product will endure normal, even abnormal usage.

Role of Research: Research will assist to provide information as may be required. For instance information can be requested on the various usage practices for the proposed product.

Market Tests: Unlike the internal tests conducted during prototype development, market tests involve actual consumers. A new product may be given to a sample of people for use in their households (in the case of a consumer good) or their organizations (a business good). Following the trial, users are requested to evaluate the product. This stage in new product development often entails test marketing, in which the product is placed on sale in a limited geographical area. Market test findings, including total sales and repeat purchases by the same customers are monitored for the period of the tests. The product's design and production plans may be adjusted as a result of test findings. Following a successful market tests, management must make a final decision about introducing the product.

Role of Research: To provide information based in findings of consumer surveys in the geographical area of test marketing, competition studies and a study of the product's potential in the larger markets.

Commercialization: In this stage, full scale production and marketing programs are planned and then implemented. Once the product is made available for purchase, the external competitive environment becomes a major determinant of its destiny.

Role of Research: To provide information based on continuously aggressive study of the competitive environment for the new product, monitoring of the marketing communication strategies for effectiveness and continuously impacting on management on the need to make product strategy changes as may be dictated by market imperatives.

Conclusion

A business exists to satisfy customers while making a profit, Etzel et al (2001). Fundamentally, a company fulfils this dual purpose through its products. Hence, new product planning and development are vital to an organization's success. This is particularly true in our present situation of rapid technological changes which can make existing products obsolete and the practice of many competitors to copy a successful product which can neutralize an innovative product's advantage. So the guide for continuous innovation in new products.

Research on the other hand is the system put in place by management to carry out a systematic design, collection, and analysis and reporting of data and findings relevant to a specific (marketing) situation facing a company. It is a staff function that must be continuously appreciated to ensure that relevant information is made available for decision making at all levels of the organization. The role of research in the new product development process cannot be overemphasized as it were.

Recommendations

From the foregoing treatise on the role of research in new product development process in marketing, we wish to recommend the following steps to ensure that the goals of the organization are fully realized:

a. There must be adequate market demand for the new product,
b. The product must satisfy key financial criteria,
c. The product must be compatible with environmental standards,
d. The product must fit into the present marketing structure, and
e. The middlemen must have good working relationship with the company.

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