New Product Development And Innovation

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ABSTRACT
The future value of the company is dependent on the successful launch of new, innovative products and services. Innovation is a major driver of sustainable growth. There are four ways for companies to grow:
(1) selling more of the products they already have;
(2) improving their current products incrementally with the goal of selling at higher margins or volumes;
(3) creating new products and services; or
(4) expanding through a merger or an acquisition. However, the fourth way isn’t sustainable. But, Leading product innovation, that is product development is one of the major element.
The new product development describes where a means-end chain (MEC) approach was introduced to a cross-functional development team at two different stages of the development process. MEC data are most valuable to the team in the early stages of the development process. In new product development we define the transformation of market opportunity into product available in the market. In this the focus is on single firm. Also in New Product Development, the various features of the product such as cross functional team working, early involvement and effective project management arrangements.

The purpose of this paper is to highlight the risks, opportunities and best practices that are associated with new product development activities. In new product development we have also discussed about Customer Requirement Management.

In this various key challenges have been identified about customer requirement management.

Keywords: Innovation, New Product Development, Means-End Approach, Lifecycle, Culture, Competitors, Leadership, Communication Skills, Innovation within organization, Company’s strength

INTRODUCTION
The link between successful innovation and the ability to focus on customer needs is clear. Leading manufacturers demonstrate a strong ability to get closer to their market needs and to generate, understand and evaluate ideas. Just as companies innovate in many ways—by making incremental changes to their products, achieving new product breakthroughs, or causing market disruptions—they can innovate in many areas. Businesses can design new products and services, expand into unfamiliar markets and channels, or develop different manufacturing or marketing processes. From a practical business perspective, there are two ways to look at product innovation: it must create novelty, and it must have value. Innovation must be produced at a cost that the buyer is willing to pay, and it must allow the producer to cover the cost and generate a sufficient profit.

New product development (NPD) is widely recognised as an important source of competitive advantage, and emphasis is being placed on systems which simultaneously provide quality, variety, frequency, speed of response and customisation.

MEANS-END CHAIN APPROACH TO NEW PRODUCT DEVELOPMENT
MEC approach to the development of new products. The aim is to investigate how the introduction of means-end chain data to the NPD process influences some of the critical factors that support successful product development.

The means-end chain theory of consumer behaviour is based on the assumption that consumers demand products because of the expected positive consequences of using the products. The purpose of
the MEC theory is to explain how product preference and choice is related to the achievement of central life values.

**THE USE OF MARKET INFORMATION IN NPD**

One of the primary goals of the collection and use of market information in NPD is the identification of customer preferences. Empirical studies show that the customer focus part of market orientation is central to the success of innovation. Market information may be used in different ways in connection with product development, either instrumentally (the use of information for decision making, implementation and evaluation of decisions) or conceptually (the information is valued and the company has processes for converting information to knowledge).

Product development is also defined as transformation of a market opportunity and a set of assumptions about product technology into a product available for sale. The focus is on product development projects within a single firm and also to contrast to much of the literature on technological innovation, which addresses innovation at the level of an entire industry or an entire firm.

New product development (NPD) is widely recognised as an important source of competitive advantage, and emphasis is being placed on systems which simultaneously provide quality, variety, frequency, speed of response and customisation. There is now growing consensus about their integration into a new model of ‘good practice’ in NPD.

Innovation cannot be an isolated activity. Decisions about the commitment of funds and other organisational resources are essentially strategic. There are few problems in new product development –

First, innovation studies highlight broad capabilities but not necessarily the constituent abilities and routines.

Second, capabilities in innovation management are firm-specific; what works for one firm cannot simply be copied by another with the same results.

Lastly, innovation has been frequently seen as a largely technical endeavour, distinct from line management and only loosely connected with the firm’s strategy.

Implementing new or improved NPD approaches requires that we strengthen our understanding of the processes which support the articulation, development, introduction and consolidation of suitable routines.

In New Product Development there are 2 categories of new products such as the product which are new to the company and the products which are new to the market. This newness can be further divided into 6 categories such as products which are new to the world products, new product lines, additions to the existing product lines, improvements to the existing product, repositioning, cost reductions.

The portfolio management and new product development teams are key groups that contribute to keeping an organisation competitive in the market place.

Customer Requirement Management is one of the principal factors for the product development to succeed in the market place. It has various fields such as business studies, marketing research, human factors, software engineering and product design.

New product development (NPD) is the complete process of bringing a new product to market. There are two parallel paths involved in the NPD process: one involves the idea generation, product design and detail engineering; the other involves market research and marketing analysis.

This type of development is considered the preliminary step in product or service development and involves a number of steps that must be completed before the product can be introduced to the market. New product development is essential to any business that must keep up with market trends and changes.

Product development is a broad field of endeavour dealing with the design, creation, and marketing of new products. Sometimes referred to as new product development (NPD), the discipline is focused on
developing systematic methods for guiding all the processes involved in getting a new product to market.

There are a number of organizations dedicated to supporting product development professionals, such as the Product Development and Management Association (PDMA) and the Product Development Institute (PDI).

**LITERATURE REVIEW**

For many years economic growth and innovation seemed to flow one way, from the developed world into emerging markets. In the past few years, though, relations between developed and developing economies became a two-way street, with innovation, investment and competition originating in both the developed and emerging markets, and moving across the globe from one to the other.

The situation is much the same in the realm of new product development. More and more, innovation—the use of intellectual capital to create new products or services that generate positive business results in the form of financial returns—is being exported from emerging markets into other emerging and developed markets.

According to (Bessant and Caffyn, 1996), the development of a stream of new products requires more than awareness of the issues; specialised skills, knowledge, processes, mind-sets, problem-solving mechanisms and management philosophies are needed. These are developed, in part, using the concept of 'routines' from the innovation literature. Routines are behaviour patterns associated with aspects of organisational performance which are rehearsed to the point where they become automatic -- 'the way we do things around here' -- and there is growing interest in this approach to understanding organisational behaviour in terms of learning.

A recent survey of 940 executives by the Boston Consulting Group (BCG) found that 51 percent of them were dissatisfied with the financial returns on investment (ROI) that they are seeing from their innovations. This same research also shows that "there is no direct correlation between R&D spending and sales growth, earnings or shareholder returns." In principle one would expect increased R&D spending to lead to more or better ideas and projects. This, in turn should result in better new products and corresponding revenue growth.

Carter and Williams' (1957) pioneering work identified the concept of 'technical progress', drawing attention to differences in the way in which some firms managed the process. Studies of success and failure, explored through a variety of methodological routes, draw similar conclusions, in each case identifying a set of capabilities associated with innovation management.

In terms of (French and Bell, 1990, p.283), implementing new or improved NPD approaches requires that we strengthen our understanding of the processes which support the articulation, development, introduction and consolidation of suitable routines. In our own work we have drawn extensively on the literature and practices in the field of 'organisational development' (OD) to provide a framework for exploring implementation of changes in structures, process and behaviour.

This paper draws on empirical evidence from a case study where MEC data was collected and made available to a new product development team, which represented both marketing and technical development. The study is part of a project conducted in cooperation with a Danish food manufacturer with the purpose of developing nutritious frozen products for children based on organic vegetables. The collection of MEC data took place in two different phases of the development process. The first round of MEC data collection was carried out during the early stages of the development process in order to give the development team initial material to work with. The second round of MEC data collection was designed as a concept test of the product concepts, developed by the team.
According to V. Krishnan • Karl T. Ulrich, The University of Texas at Austin, CBA 4.202, Austin, Texas 78712, The Wharton School, 1317 Steinberg Hall-Dietrich Hall, Philadelphia, Pennsylvania 19104. This paper is a review of research in product development, which defines as the transformation of a market opportunity into a product available for sale. Our review is broad, encompassing work in the academic fields of marketing, operations management, and engineering design. The value of this breadth is in conveying the shape of the entire research landscape. We focus on product development projects within a single firm. In contrast to this approach to prior reviews of the literature, which tend to examine the importance of environmental and contextual variables, such as market growth rate, the competitive environment, or the level of top management support.

John Bessant and David Francis Centre for Research in Innovation Management, University of Brighton, Falmer, Brighton, U.K. This paper reports on a case study of an electronics firm designing and implementing a new NPD system. In particular, it emphasises the organisational development processes required to implement and develop ownership of the system. The paper concludes with some comments on transferring this approach to other organisations, and on research issues arising from the experience.

Stanski Consulting & Ventures, The purpose of this white paper is to highlight the risks, opportunities and best practices that are associated with new product development activities. The following factors are listed below and do not have a priority assigned to them due to equal importance in the NPD life cycle:
- Business and Product Strategy
- Product and Pipeline Management
- Technology Management
- Management and Leadership
- Early Involvement

They have also discussed about the product which are new to the company, in the sense that the business has never made or sold this type of product before, but other firms might have and secondly which are new to the market or “innovative” – the product is the first of its kind on the market.

RESEARCH METHODOLOGY
We adopted a loosely structured method for questionnaires of surveying the literature. As the first step we created a set of papers related to product development. We did this by searching the tables of contents of major journals over a period. After that we distributed almost 80 questionnaires, out of which 63 were proved to be successful in a research work.

FINDINGS
From the questionnaires distributed and received, we have got the following founding which we have studied with the help of SPSS 14.0 and used correlation to calculate the same. Following are the findings with their interpretations mentioned to understand New product Development and Innovation

- We found that the innovation for the Business related to new production method or new Product or even a New market Structure holds a great importance. A firm cannot survive the competition without the zeal of creativity.
- It is required by the firm to fully indulge itself it in the research and innovation procedure as without this.
- The lack of innovation zeal in the organization can be due to its Lack of Finance or support from the employees or the various heads of the organization
- Company’s product life cycle also holds equal importance. It is necessary for the firm to retain a good number of customers.
- A company should have strategic Focus as to understand and predict the customers’ needs and the competitive strength.
A company to have good innovation and new product development, they should have good leadership quality and communication skills.

The culture and the organization structure also plays an equal role in innovation. A good atmosphere proves to be positive for the company and vice versa for the separate.

RESULTS

The attractions of emerging markets as production sites are obvious. They’re also home to a rapidly growing middle class—a source of present and future customers, and of educated, motivated talent. Yet emerging markets are different from developed markets in cultures, customer requirements, labor practices, and regulatory regimes. To efficiently develop effective products and innovations in emerging markets, and then perhaps to use those innovations as a basis of competitiveness in the developed world, a company needs to implement a specific business approach. Such an approach will tackle the main challenges of differentiation and competitiveness.

As each market is unique, past experience of entering a developed market may not serve as a reliable guide. It is important to understand a market’s local economic and sociocultural reality to create a defendable niche. In addition, companies must have a clear and distinct emerging market strategy and operating model, linked to long term corporate strategy and tailored for the different success drivers and unique characteristics of the market.

It is also important to note that quality and quantity should not be confused. Although most emerging markets offer an impressive source of talent, some of that talent might require further training and or industry experience. The traditional process of education teaches students to apply a systematic and structured approach to solving problems, which are extremely important skills to product development and incremental adjustments. Quite often, breakthrough requires “out of the box”, multidisciplinary thinkers, who may not follow the traditional career and educational paths, which will require the development of an open environment to innovation, where such talent can be harvested adequately.

Access to low cost capital allows a company to invest ahead of its competition, letting it build scale and market share. The need for balance between early involvement of downstream functions such as production and fast-track decision making. This diminishes the burden of trying to communicate everything to everyone who could possibly be involved at all times.

The need for a multi-track system to cope with different kinds of new products, from simple variants on existing themes to completely radical new concepts. This provides inherent flexibility, thereby reducing the risk that a demanding (and therefore costly) procedure is used for simple product enhancements which do not require an elaborate decision making process.

The identification of clear roles and responsibilities within the process, especially hand-over from product managers to project managers. This provides for the superior management of linkages -- an incipient weak area in hierarchically based organisations.

CONCLUSION

Many studies have been conducted to identify new product success factors, but they did not pay any attention to the success of the four stages of the NPD process that affect the success of new product development. Moreover, little and most likely no previous study had tried to mention innovation as the impact factor on new product success. Besides, there is a consensus among researchers that the NPD process is one of the important factors of NPD success. Thus, based on the systematic literature reviews, it is possible to design the organizational structure and contextual factors that complete the model. Hence, these factors may help firms to focus and use the innovation paradigm; also, these factors affect the relation of NPD success and innovation. This study is an attempt to provide a detailed analysis on the impact of open innovation on the success of new product development and this impact is moderated with three factors of organization: Formalization, Centralization and, Complexity.

In the meantime, the NPD process can be categorized subjectively into four main stages: planning, development, marketing, and commercialization. This synthesis model may be used for better understanding of open innovation that contributes in explaining the new product. It can also be used to
develop a questionnaire in order to evaluate the impact of open innovation on new product development success.

It’s easy to assume that product development and innovation happen in the same way, everywhere. But countries grow in different ways, and they also create intellectual capital in different ways. As varying innovation models blossom in the emerging markets, they’ll have lessons for companies everywhere. Effective management of innovation requires openness in multiple senses, including openness to ambiguity, openness for new ideas, and an open policy regarding the origin and destination of ideas for commercialization. Studies show that, firms following open innovation recognize the value of external inputs into the process of new product development and seek to utilize these inputs internally. Additionally, it is important to investigate several types of new product successes as open innovation may have influenced the success in different ways.

In order to take full advantage of these markets, companies looking to develop products and innovation in and from the emerging markets should consider:

• A defendable niche, based on understanding local needs combined with a constant feedback loop between the integrated local and corporate strategies. This also includes management of local talent pool, to encourage both incremental and breakthrough thinking.
• Cost advantage, achieved through scale and/or efficiency which creates the ability to price competitively, ride out periods of intense price competition and experiment with new ideas.
• Tailored products or services which address the “true voice of consumer” of the segment being targeted, as well as unique local needs, institutional voids, collaboration opportunities and price points.

Emerging markets are the “Key Swing factor” in the future growth of global trade and financial stability, as well as critical players in global politics and business. They have huge untapped potential and they seem determined to undertake domestic reforms to support continuous and sustainable growth. What’s certain for now is that there are numerous opportunities waiting to be explored in terms of innovative ideas, product launches and new markets.

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