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## Impact of New Product Development on Business

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**ABSTRACT:**In building the economic competitive edge, new product development is the key driver of economic growth. The commodity life cycle becomes very short and year after year. This means that creativity is the driving force behind the economy. The new product development (NPD) literature underlines what is critical for continuing business success in bringing new products to the market. Its commitment to the development of industry, the impact on sustainability, and the position as a central factor in managing industries has become well-documented. New goods are responsible for jobs, economic growth, technical advancements and high living standards. Therefore, it is important to research NPD and the mechanisms from which it occurs.

**KEYWORDS:**Innovation, New product development, Success factors, Business growth, Invention.

### I. INTRODUCTION

One of the main innovations and strategic advantages for each nation is the production of new products. Companies around the world face shifts in both manufacturing and service technologies. The product life cycle has never been so short, so the production of new products is one of the most important activities for industry[1]. It is possible to stay on the market using just the usual means, for instance, of increasing competition, cost cutting. The aspects that make an organization work effectively are clearly a cohesive strategy and the creation of new concepts. For economic growth and the welfare creation vector, new product and service innovations are important in each economy[2].

The number of new products launched has grown significantly in recent decades, as the market is more conscious of the value for business of new products. The control of the NPD process has since become a problem for businesses because it requires considerable financial and human capital and takes time. The challenging reality is that the bulk of new goods are never sold for those who experience a failure rate of 25% to 45% [3]. Around four products come under production with each seven new product concepts, one and a half are launched and one is successful. Despite thorough studies into how to succeed in NPD, businesses frequently produce failed goods, so NPD for many companies remains one of the most dangerous and confounding jobs. The pressure to optimize the return on this investment is also increasing as the amount of dollars invested in NPD grows. It gets worse when 46% of NPD services are spent on goods which are cancelled or do not return sufficiently[4].

### II. LITERATURE REVIEW

#### 1. New product development:

The NPD process covers the practices of organizations in the production and introduction of new products. An original product design or idea that has been analyzed, developed, tested and released on the market progresses over an array of stage events. This operation series can also be used as a set of steps in the knowledge compilation and assessment. In reality with the development of the new product, management becomes more aware of the product (or less uncertain) and can review and reassess the original development or start-up decision. Following this method of evidence processing and appraisal, new innovations decisions by businesses will be strengthened by minimizing the risk level

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and reducing capital dedicated to end-of-life product loss[5]. Differs between sectors and companies in the NPD phase. In reality, each organization should be tailored to fulfill its market resources and needs.

A model that represents the related phases of the NDP mechanism has been attempted by several researchers. Over the years, a range of comprehensive NPD models have been developed, better known as the Booz, also known as the BAH model, which is based on most of the other advanced NPD systems. This generally known model seems to cover all the fundamental phases of literature models. It is focused on systematic research, in-depth interviews and case studies, and as such it tends to reflect market trends reasonably well[6].

The stages of the model are as follows:

- New Product Strategy: Links the NPD process to company objectives and provides focus for idea/concept generation and guidelines for establishing screening criteria.
- Idea generation: Searches for product ideas that meet company objectives.
- Screening: Comprises of an initial analysis to determine which ideas are pertinent and merit more detailed study.
- Business Analysis: Further evaluates the ideas on the basis of quantitative factors, such as profits, Return-on-investment (ROI), and sales volume.
- Development: Turns an idea on paper into a product that is demonstrable and producible.
- Testing: Conducts commercial experiments necessary to verify earlier business judgments.
- Commercialization: Launches products.

## 1.1 Critical success factors:

Many researches have explored over the past two decades the determinants of NPD success and found several variables that differentiate between good and successful goods. Critical success factors (CSF) are named for those which are important and which guarantee commercial success: It is crucial to address how each one can be helpful and how each one can be converted into an operational component of the NPD process[7]. Organizations must recognize conditions essential to the organization's performance and have indicated that the inability to meet its objectives would result in organizational failure. Indeed, several organizations have already been advised that the NPD itself is a CSF. As this is now a well-accepted fact, it is a matter of deciding which variables are important to success in NPD and how this success can be assessed. The challenge is to design a mechanism for effective product creation, in which innovative product projects can be transferred from the stage of the proposal easily and rapidly to a successful start.

## 1.2 Metrics:

A metric measures the success and helps an organization to assess the effect of changed procedures over time. For three factors at least, metrics may play an important role in assisting organizations to improve their efforts in NPD. In this basic, long-term and uncertain undertaking, metrics log the valuation of the NPD and are used to illustrate its investment. Second, successful policies allow CEOs and CTOs to assess individuals, priorities, programmes, and plans so as to better distribute resources[7]. Third, compartmental metrics impact. In the determination of basic metrics by scientist, engineer, managers and other NPD staff, they typically make judgment, take steps and otherwise adjust their actions to enhance the measurements. The correct interventions balance workers' priorities with those of the company. Flawed calculations are counterproductive and lead to minor decisions and acts that avoid risk in the near term.

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Any metric used for NPD also focuses on one or the other feature or on the whole NPD method. But no purpose relates exclusively to the method of producing new goods. A statistic, for example, will indicate continuous progress to the efficiency of the R&D enterprise. However, despite this change, the pace at which new drugs enter the market cannot be changed. The success of the interdependent phases of the NPD mechanism is necessary to assess[8]. There is no question that lack of useful indicators is one explanation why NPD's performance rate has been dramatically improved in the last 40 years. If organizations have accurate tools to evaluate their performance, such challenging areas can be solved and administrators can see the same progress in their NPD activities that they expect in their quantifiable overall quality control systems[9].

## 2. Critical success factors and metrics for stages of the NPD process:

### 2.1 New Product Strategy:

Companies must define goals and design a specific new product strategy (NPS) to achieve them before starting an NPD project. The goal of this stage is to lead the new product initiative. It describes and draws from organizational goals and strategies of the organization as a whole the strategic market criteria that the new product should satisfy. Such organizational standards attribute positions to the new goods that are shaped by the industry's needs[10].

### 2.2 Idea generation:

This move is aimed primarily at generating a range of proposals from which the organization will pick the most workable and promising (s). The number of ideas produced partly depends on the higher chance of success. Companies successful in producing ideas are those that do not rely exclusively on the first source, i.e. ideas that come from within the organization, but focus on other possible sources of ideas. There are a number of references and diverse methods for producing concepts. New thoughts are drawn by the organization, both from internal sources (e.g. staff, managers), outside sources and from structured research and development (e.g. clients, rivals, manufacturers and suppliers). The most widely used approaches for producing concepts include brainstorming, morphology, visualization and difference analysis. Customers may be a very good place to continue looking for new product concepts. Marketing staff and consumers generated the comparatively high success rate for product concepts.

## III. CONCLUSION

One of the main innovations and strategic advantages for each nation is the development of new products. The lack of creative firms, lack of investment in research and development, inadequate collaboration between sciences, higher education and the industry, have contributed to developing countries poor innovation success as compared to developed countries.

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