

NEW PRODUCT INTRODUCTIONS IN NORTH AMERICAN TECHNOLOGY MARKET IDENTIFYING FACTORS FOR SUCCESS OR FAILURE

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ABSTRACT

The development of a new product entails a methodical and repetitive procedure that integrates creativity, comprehension of the market, and efficient implementation. Effective new goods not only fulfil client requirements but also generate value for both consumers and the organization. By consulting several sources in business literature, organizations can acquire valuable knowledge regarding optimal strategies, frameworks, and theories that facilitate the effective creation and launch of new goods. A new product is defined as the creation and launch of a product that is either completely original or has undergone substantial enhancements in comparison to previous products available on the market. Diverse shapes can be assumed by new products, encompassing tangible commodities, services, or a fusion of both. The incorporation of novel items is a pivotal element of corporate advancement and expansion, enabling organizations to address changing consumer demands, maintain competitiveness, and explore unexplored market prospects. The ever-changing North American technology market is the focus of this research, which aims to identify the factors that make new product launches successful or unsuccessful. Businesses work tirelessly to adapt to changing market conditions by developing and releasing new products and services. Innovation, thorough market research, efficient marketing, and well-thought-out strategy are some of the critical success aspects highlighted in the study. Achieving market fit requires deep understanding of the target audience and the development of products with a distinct value proposition. On the other side, factors that contribute to failure include unsatisfactory marketing strategy, fierce rivalry, and insufficient market research. Failure can also be caused by technical difficulties, having unreasonable expectations, and not having enough money. Businesses can boost their chances of releasing profitable, new goods by thoroughly evaluating these aspects, which will help them traverse the intricacies of the North American technology market. To further understand how one of the most powerful technological markets in the world reacts to new product introductions, this study lays the groundwork for future investigations into these complex dynamics.

Keywords: New Product Introduction, North America, Technology, Market, Success, Failure Factors, Innovation, Market Research.

INTRODUCTION

In order to conceptualize a new product, one must go through a process that is both strategic and iterative, combining several elements such as innovation, market understanding, and efficient execution. Not only do successful new goods fulfil the requirements of customers, but they also generate value for the company as well as for the customers. Companies are able to obtain insights into best practices, frameworks, and ideas that contribute to the successful creation and introduction of new products by taking into consideration a variety of references from business literature.

As a concept, the term "new product" refers to the process of developing and introducing a product that is either completely new or greatly improved in comparison to other products that are currently available on the market. The term "new product" can refer to a variety of different things, such as tangible commodities, services, or a combination of the two. One of the most important aspects of corporate innovation and growth is the introduction of new products (Firmansyah, et al., 2018). This enables businesses to satisfy the ever-changing requirements of their customers, maintain their competitive edge, and investigate unexplored market potential.

Product innovation, which refers to the creation of novel and enhanced products (Supriyanto, et al., 2018), is essential for the continued existence and success of contemporary businesses. An efficient product launch is a crucial factor in achieving optimal performance, and it is frequently the most expensive stage in the process of developing a new product. Product launch, despite its significance, expenses, and hazards, has received limited attention in the existing product literature.

REVIEW LITERATURE

Bowersox et al. (1999) explores strategies for efficiently managing the risks associated with the introduction of new products. The authors emphasise the importance of response-based logistics in enhancing the effectiveness of new product launches. Organisations can avoid the risks of having too much inventory or not enough supply during the early phase by aligning their logistics operations with market demand. The study highlights the significance of lean concepts in optimising supply chain processes to efficiently address the evolving requirements of product releases, ultimately resulting in improved innovation management. Cierpicki et al. (2000) investigates the understanding of marketing principles among managers, specifically in the context of developing new products. The study assesses the comprehension of marketing principles by managers and their proficiency in applying them throughout the crucial phase of introducing new products. The findings highlight the need of managerial competence in marketing strategies for successful new product development efforts. Cooper et al. (1987) investigates the factors that distinguish successful new products from unsuccessful ones. The writers analyse several aspects of the product development process, identifying pivotal criteria that determine whether it leads to success or failure. The study emphasises the importance of factors such as effective market research, competitive analysis, and proper resource allocation in achieving successful product launches. These research findings improve our understanding of the crucial aspects that impact the outcomes of new product initiatives. The research undertaken by Cengiz et al. (2005) investigates the key aspects that contribute to the success of new product development initiatives. This study examines the essential factors necessary for effectively planning and executing new product projects. The authors undertake a comprehensive inquiry to identify essential attributes that contribute to success, providing valuable insights for businesses seeking to enhance their procedures and results in the domain of new product development. Cooper et al. (1995) focuses on benchmarking critical success factors (CSFs) in the context of new product development (NPD). The authors analyse key factors that contribute to the success of New Product Development (NPD) initiatives within businesses. The study aims to offer valuable insights into optimal methods by conducting a thorough analysis and evaluation of these attributes, allowing organisations to enhance their New Product Development (NPD) procedures. The research emphasises the need of understanding and adopting effective methods to improve the overall success of new product development efforts.

(Song et al., 1997) conduct a comparative analysis of the new product development (NPD) processes in Japan and the United States. This study investigates the differences and similarities in the approaches, strategies, and protocols employed by companies in these two countries during the New Product Development (NPD) process. The research provides valuable insights into the cultural and contextual factors that impact NPD strategies in various business settings, using the lens of a cross-national perspective. Ottum et al. (1997) investigates the impact of market intelligence on the outcomes of recently released products. This study examines how the accessibility, accuracy, and utilisation of market knowledge affect the results of new product initiatives. By examining this link, the research offers useful insights into the significance of market knowledge in shaping the development and execution of effective strategies for product development and launches. The findings provide valuable insights for businesses seeking to enhance their decision-making processes and overall success in introducing new products to the market. Wu et al. (2004) investigates the factors that influence the likelihood of delays in the launch of a previously announced new product. This study examines the factors that can lead to delays in the delivery of a product that has already been marketed by corporations. The study provides valuable insights into the complexities of managing expectations and operational challenges associated with the introduction of preannounced new products by analysing these components. The findings offer valuable information for organisations that utilise preannouncing strategies as a component of their product launch planning. Sivadas et al. (2000) investigates the impact of organisational factors on the efficacy of new product development, considering both internal processes and partnerships. This study investigates the influence of internal factors and collaborative strategies on the efficacy of novel products. This study offers valuable insights into the organisational dynamics that impact the effective advancement of novel products. It provides significant insights for businesses engaged in both internal and alliance-based strategies for innovation. Markovitch et al. (2012) examines the relationship between the initial stock price reactions and the effectiveness of marketing strategies, with a particular focus on the introduction of new products in the United States. The study evaluates whether the initial response of the market to the launch of a new product accurately reflects the success of the underlying marketing strategies. The research offers useful insights into the relationship between financial market fluctuations and the efficacy of marketing endeavours during the launch of new products.

Mullins et al. (1998) examines the challenges and strategies associated with new product development (NPD) in dynamic marketplaces. This study investigates the ways in which organisations adjust to the unpredictability of rapidly changing marketplaces and finds key factors that contribute to the successful development of new products. The study offers valuable insights into the tactics and elements that businesses utilise to navigate the difficulties of innovation in swiftly evolving environments. This has significant ramifications for organisations operating in volatile market environments. Henard et al. (2001) investigates the factors that influence the success of innovative products. This study investigates the pivotal aspects that impact the varying degrees of success observed among recently launched products in the market. The writers engage in empirical study to unveil crucial factors that have a substantial impact on the success of a novel product. The elements encompass market orientation, competition response, and the efficacy of marketing communication. The findings provide valuable insights into the intricate and varied characteristics of successful product launches, which have substantial implications for marketing strategies and the development of new products.

Florén et al. (2018) provides a comprehensive analysis and theoretical framework of the fundamental attributes that ascertain the success of new product development (NPD) throughout its first phases. The study synthesises existing literature to find key attributes that significantly influence the success of NPD programmes during their initial phases. The conceptual model offers a systematic framework for understanding and prioritising these components, providing valuable insights for professionals and scholars involved in the early stages of presenting new products to the market. The research undertaken by Edgett et al. (1992) investigates the disparities between Japanese and British firms in the domain of new product development (NPD). This study analyses and assesses the factors that contribute to both the success and failure of new product development (NPD) programmes. The research aims to evaluate the factors that contribute to the outcomes of NPD initiatives in different cultural and corporate contexts. By doing this, it aims to offer valuable insights into the strategies and techniques that can enhance organisations' performance in new product development (NPD). The study conducted by Dwivedi et al. (2021) investigates the crucial factors that impact the efficacy of new product development (NPD). The study investigates particular scenarios to discover and assess the essential factors that contribute to the success of new product development (NPD) projects. The research aims to offer empirically derived insights to support businesses engaged in the process of developing innovative products. The aim is to provide practical suggestions that help these organisations overcome obstacles and improve their overall success in introducing new items to the market.

RESEARCH METHODOLOGY

The study participants were requested to self-identify as consumers residing in Washington (US) who often purchase recently released technical products. Washington has been recognised as a highly prospective emerging market for the same. To conduct the investigation, a subset of shopping centres in Washington was selected. Following the creation of a comprehensive list encompassing all potential shopping malls/centres suitable for data collection, the judgement sampling technique was employed to choose the specific shopping malls/centres to be included in the study. The secondary sampling units for this research are shopping malls/centres that are expected to attract clients with relatively high incomes. This is because it was expected that shoppers at these malls would have the opportunity to purchase any new technical releases. The method of convenience sampling was ultimately employed to finalise the selection of the sample participants. The primary objective of this study was not to construct a profile of online customers, but rather to examine the factors that influence consumers' risk perceptions and purchase behaviours in the context of online shopping. Consequently, no specific sampling quotas were established based on the age or gender of the participants. The sample comprised 250 individuals that participated in the survey.

We devised a questionnaire with various distinct sections. The sectional questions were designed to extract information from respondents regarding their perceptions of potential hazards. We employed a Likert-type response scale consisting of five points, ranging from "strongly disagreeing (1)" to "strongly agreeing (5)". To minimise the impact of any possible order bias, the structure of the questionnaire was carefully deliberated.

The main data for this inquiry were gathered throughout a 30-day period. Questionnaires were completed at each of the various shopping malls/centers in Washington that took part in the survey research. A cohort of labourers approached patrons as they were strolling around the shopping centre and requested their involvement in a brief interview, requiring only a few

minutes of their time. The survey required a total of 10 minutes to finish. After the data gathering process was finished, a quality assurance check was conducted on twenty percent of the completed questionnaires.

Objective of the Study

1. To examine the influence of new product introductions in North American technology.
2. To analyse the success & failure factors on new product introductions in North American technology market.
3. To suggest findings & conclusion

Hypothesis of the Study

H₁: *There is no significant influence of the success & failure factors on new product introductions in North American technology market.*

H₂: *There is significant influence of the success & failure factors on new product introductions in North American technology market.*

Influence of New Product Introductions in North American Technology

The launch of new products in the North American technology market can exert a substantial impact on multiple facets of the industry, economy, and consumer behaviour. Here are several significant ways in which the introduction of new products affects the technology landscape in North America Figures 1 & 2:

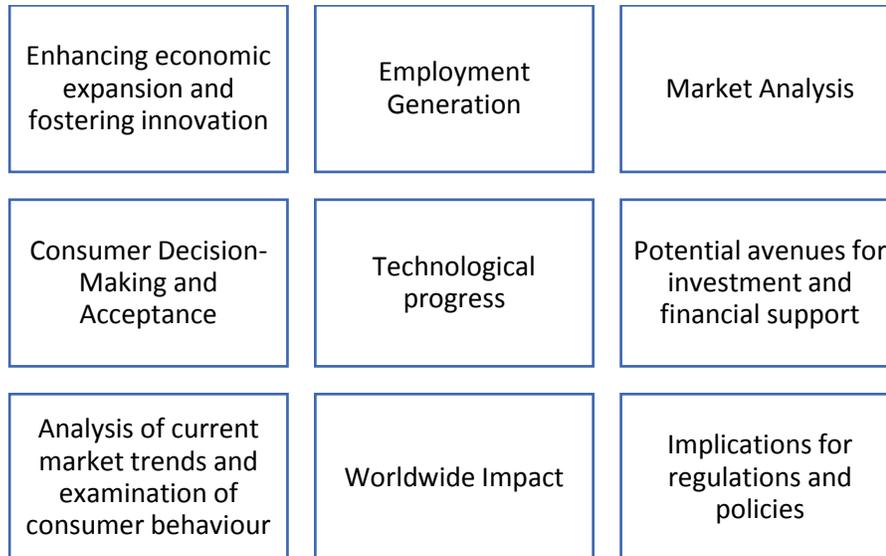


FIGURE 1
ESSENTIAL FEATURES OF NEW PRODUCT INTRODUCTIONS

The introduction of new products stimulates innovation, hence promoting economic growth through the creation of chances for enterprises to expand, recruit, and engage in research and development. The introduction of new technology frequently results in the emergence of novel markets and sectors, hence facilitating economic diversification (Gautam et al, 2018).

By introducing unique items, organisations can distinguish themselves in a very competitive market. Having the ability to differentiate is essential for acquiring a larger portion of the market and sustaining a competitive advantage. Robust rivalry fosters a culture of ongoing enhancement, compelling corporations to allocate resources towards research and development in order to maintain a competitive edge (Srivastava, et.al., 2023). The introduction, fabrication, and promotion of novel technological items frequently provide employment opportunities in several areas, encompassing engineering, manufacturing, marketing, and sales. The technology industry, specifically, is renowned for creating career opportunities that need advanced skills.

The introduction of new products provides consumers with an expanded array of options, enabling them to select technologies that align more closely with their own requirements and tastes. The acceptance and utilisation of novel technology by consumers can significantly influence trends and determine the trajectory of the industry (Verma, U., et.al., 2022). Introducing new products contributes to the overall progress of technology. Each next iteration frequently builds upon prior ideas, resulting in a perpetual cycle of enhancement. The swift rate of technological progress in North America is fueled, to some extent, by the continuous arrival of novel and enhanced items. Profitable introductions of new products entice investment and finance, furnishing organisations with the necessary financial resources for more research, development, and growth. Investors are frequently attracted to companies that have a capacity for innovation and the effective commercialization of products. Emerging items dictate market trends and exert a significant impact on consumer behaviour. Consumer preferences and expectations frequently undergo changes as a result of the success of specific technologies, giving rise to emerging trends. The adoption of new technology by consumers can trigger a chain reaction, leading to a surge in demand for related products and services. Technological items that achieve success in North America frequently have a significant global influence, exerting their impact on markets and industries across the world. North American technology businesses are widely acknowledged as global frontrunners, and their product launches have the ability to establish norms and performance standards for the international technology industry. The advent of novel technologies may compel policymakers to contemplate legislation and policies to tackle emerging difficulties and guarantee the judicious use of technology. Regulatory frameworks may require adjustments to accommodate the evolving technology environment, which may affect the development, deployment, and utilisation of new products.

RESULTS & DISCUSSION

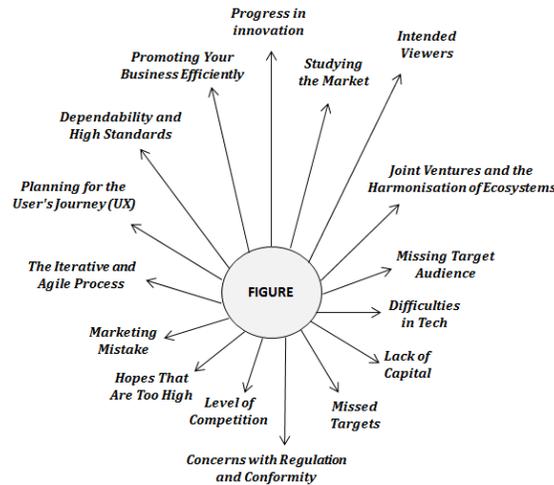


FIGURE 2
FACTORS UNDERTAKEN FOR THE STUDY

Table 1 RELIABILITY TEST				
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No. of Items	Mean	Std. Deviation
0.911	0.872	16	95.761	12.1238

Cronbach's alpha in table 1 was computed for this set of questions using SPSS, and the result was 0.911, which is considered to be an excellent value (a value of Cronbach's alpha that is greater than 0.6). There were a total of sixteen items in the questionnaire, and the mean score was 95.761, with a standard deviation of 12.1238 Tables 2 & 3.

Table 2 KMO AND BARTLETT'S TEST		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.898
Bartlett's Test of Sphericity	Approx. Chi-Square	2624.123
	Df	31
	Sig.	.000

On a scale of one to five points, 250 people completed a survey to assist them better understand success and failure factors by ranking the level of perceived danger associated with a variety of new technology-related product possibilities. A Bartlett sphericity test was run on the data to determine the degree to which the factors are in generally sync with each other and to evaluate the overall relevance of the factor matrix. The Kaiser-Mayer-Olkin (KMO) value was 0.898, which is a good showing overall.

Table 3 FACTOR LOADING MATRIX				
Item (s)	Factor_ Loadings	%Variance	Factor Explained	Alpha

Progress in Innovation	0.643	83.216		0.811
Studying the Market	0.523		Functional and Success factors	
Intended Viewers	0.676			
Promoting Business Efficiently	0.810			
Dependability and High Standards	0.691			
The Iterative and Agile Process	0.753			
Joint Ventures and the Harmonization of Ecosystems	0.799			
Planning for the User's Journey (UX)	0.587			
Level of Competition	0.811			
Missing Target Audience	0.725		Perceived Risk related Failure Factors	
Marketing Mistake	0.802			
Lack of Capital	0.715	9.286		0.897
Missed Targets	0.676			
Hopes That Are Too High	0.579			
Difficulties in Tech	0.741			
Concerns with Regulation and Conformity	0.847			

In order to determine which components, if any, could be used for further inquiry, the 16 statements underwent principal component analysis. For the purpose of Varimax orthogonal rotation, only factors with Eigen values over one were considered. The analysis of the 16-item questionnaire only considered items with factor loadings of 0.5. for the factors of success & failure of new product introductions in North America technology market, and two factors were discovered, namely functional and success factors, and perceived risk related failure factors.

Model	R	R Square	Adjusted R Square	F Change	Sig. F Change
1	0.881	0.602	0.602	311.212	0.001
2	0.796	0.682	0.682	71.654	0.001

The table 4 displays the R, R square, and adjusted r square values obtained from the regression analysis. It is noteworthy that the estimated value of r consistently exceeds 30%. The independent variables being studied have a notable influence on the dependent variable.

Hypothesis Testing Results

Using regression analysis, the KMO Bartlett test, and a factor loading matrix, the study found that null hypothesis which is “there is no significant influence of the success & failure factors on new product introductions in North American technology market.” is rejected and alternative hypothesis which is “there is no significant influence of the success & failure factors on new product introductions in North American technology market.” is accepted.

Findings of the Study

1. Innovative goods that solve actual problems or bring new features are often well-received. Being ahead in technology or functionality can give you an edge.

2. Setting unattainable expectations for the product's performance or commercial potential can result in dissatisfaction. Effectively managing expectations, both within the organisation and with external stakeholders, is of utmost importance.
3. A thorough comprehension of consumer wants and preferences is essential. Market-researched products are more likely to solve real problems and be accepted.
4. Defining the target audience and adapting the product to their needs helps increase success rates. Marketing and product positioning are better with a well-defined target market.
5. Targeted marketing activities, both online and offline, can increase awareness and interest. A product's market presentation can greatly affect its success.
6. Products that have notable technological faults, defects, or dependability problems may encounter difficulties in gaining popularity or acceptance. Users are less inclined to embrace or sustain usage of a product that fails to meet their expectations.
7. High-quality products with a positive user experience and promise fulfilment are more successful. Building trust is essential for long-term success.
8. Positive user experiences result from intuitive design. Easy-to-use products boost client satisfaction and loyalty.
9. Collaborating with other companies or integrating items into technological ecosystems can boost market reach and adoption.
10. Insufficient comprehension of the market and failure to cater to the demands of the target audience can result in a lack of alignment between the product and the market, leading to low acceptance and eventual downfall.
11. Insufficient financial resources can hinder a company's capacity to effectively introduce a product to the market. Lack of adequate financing for marketing, distribution, and continuous support can impede success.
12. Responding to user feedback and modifying the product to real-world usage can boost success. Agile development enables constant improvement.
13. Insufficient or inefficient marketing can result in limited awareness and an inability to effectively convey the value proposition of the product. Inadequate market visibility can impede success.
14. Intense rivalry in the technology industry necessitates strategic positioning and distinctiveness. Lack of differentiation or a distinctive value proposition might lead to market saturation.
15. Failure to adhere to regulatory regulations or comply with industry standards can result in legal complications and have a detrimental effect on the product's success.
16. Execution is of utmost importance. If the execution of a product, whether it be in terms of creation, production, or distribution, is mediocre, even a well-conceived product might fail.

CONCLUSION

The influence of new product introductions in the North American technology market extends beyond individual companies and their products. It plays a crucial role in fostering economic growth, shaping consumer behaviour, fostering innovation, and contributing to the region's global leadership in the technology sector. Analysing the factors that influence the success or failure of new product releases in the North American technology market involves assessing many elements that can affect how well the market accepts, adopts, and grows with the product in the long run. In order to guarantee the successful introduction of new products in the North American technology market, it is imperative to consider these factors and address them through strategic planning, thorough research, and flexible development.

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