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Should Companies Take the Risks of Investing in New Product Development: A Case Study of Coca-Cola C2

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Abstract: The enormous changes in the corporate environment over the previous few decades have kept an emphasis on new product development (NPD) alive. Companies currently are exposed to multiple risks in product innovation that lead to low willingness in NPD investment, whereas existing research has neglected how to conduct risk management regarding new product development. Therefore, this paper will examine whether it is desirable for businesses to take the risk of investing in the creation of new goods, focusing on these risks using a case study approach and developing risk management solutions. Analysis of the risks and benefits of product development leads to the conclusion that the company should try to develop new products based on the case analysis of Coca-Cola C2. On the basis of the risks of product innovation, this paper aims to propose some risk management strategies to encourage companies to assess the risks of developing products from all aspects and thereby conduct NPD procedures.

Keywords: product development, risk management, strategy

1. Introduction

Projects for the development of new products (NPD) frequently fall through at either the development stage's completion or a later stage of the commercial process. However, the current business climate necessitates speedier product creation since product life cycles shorten [1]. Given the fact that over 30000 innovative items get introduced into US stores each year, the majority of consumer packaged goods are subject to a reported failure rate of 70–90% with only a small number of products remaining on store shelves for longer than a year [2]. NPD serves as one of the key instruments for businesses to achieve an edge over their competitors and flourish in the competitive marketplace, nevertheless, a number of companies are reluctant to risk investing in product innovation due to its multiple exposures. Existing research has focused on the way companies make decisions and evaluate their investments in new product development, with less attention paid to research on risk management. Therefore, further research is needed on how companies can effectively manage the risk of investing in product development to reduce the probability of investment failure. In order to reduce the risk of product failure for businesses in the future, this paper will first identify the risks associated with breakthrough innovation by considering the item in itself, the consumer, as well as the company, respectively. It will then highlight the significance of innovations in products for the growth of the business as well as society.

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1.1. Case Description

Coca-Cola was established in 1886 in America as a brand with a refreshing taste and a free as well as energetic image that is appreciated by consumers, especially the young ones. Coca-Cola discovered a new market in 2004: males between the ages of 20 and 40 who appreciated the flavor of Coke regardless of its caloric content and men who enjoyed the calorie-free feature of Diet Coke but not its flavor or feminine perception [3]. In response to this new market, the developers created a product with half the sugar and a taste very similar to Coca-Cola, which became Coca-Cola C2 (the predecessor of Coke Zero). After months of marketing and a $50 million marketing investment, C2 was eventually deemed by management to be a failed product innovation because it fell short of meeting the real needs of this market. Men refused mixed drinks, they wanted no calories or carbohydrates, not half the calories and carbohydrates. This article will then analyse the risks associated with the case of Coca-Cola C2 as an example, supplemented by other case studies.

2. Risks

2.1. Risks Originating from the Product Itself

The product itself is one of the main risks associated with product innovation. This is due to the expensive and time-consuming nature of product invention. In the case of Coca-Cola C2, the initial $50 million marketing effort was ultimately wasted because the customer refused to pay for the new product. For instance, in the pharmaceutical sector, North American pharmaceutical product development expenditures reached a record high of $55.2 billion in 2006 [4]. Additionally, according to Taylor, it may take a medicine 10 years to develop until it is prepared to be presented for marketing authorization [5]. The product life cycle's unpredictability further raises the danger of its development in addition to these two concerns. The overall lifespan of a product is getting shorter, and this trend is driving product obsolescence [6]. One recommendation for companies is that they should strive to make their products as simple to use as possible. Likewise, if the general public cannot understand what the item being sold does in its marketing messages, the product will most likely not succeed. For instance, P&G introduced the Febreze Scentstories in 2004. This perfume "player" released a different aroma every 30 minutes and resembled a CD player. But because of the ambiguity, Scentstories failed since many customers believed the product included music and fragrances [3]. The product establishes a brand-new category and necessitates extensive consumer education—but falls short. According to Gourville, items that are easier to use, less complicated, and more straightforward to observe have a higher chance of being adopted than those that are incompatible [2]. The threat posed by current businesses, future competitors, and replacements will probably to be lessened by innovations that provide these advantages over competitors.

2.2. Risk Stemming from Target Customers

Customers in target markets are the source of additional hazards associated with new product development investments. Schneider and Hall conducted a research in 2011, and the data reveals that the average US household purchases 150 of the same things on a regular basis, which together satisfy 85% of all demands [3]. That demonstrates the steadfastness in customer purchasing practices. Creativity involves transformation for customers, and resistance to change is a common response. Sheth continues on to assert that an overwhelming proportion of customers are resistant to change and that the two main causes of this resistance to new products are consumers' unwillingness to alter their current practices and behaviors as well as their capacity to comprehend the potential exposures related to utilizing innovations [7]. Loss aversion theory states that

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consumers don't hold an identical perspective on considerable gains and losses, but rather that "the losses that were are greater than gains," which means that the adverse effect regarding losses is more severe compared with the beneficial effect of a gain of comparable proportions [2]. In a consequence, the customer opponent of novel offerings presents an important difficulty for marketing professionals.

2.3. Risk Coming from Companies

The third innovation risk comes from businesses, which must take chances with regard to launch strategy. If businesses merely place attention on creating valuable products that satisfy client wants, they will not be able to achieve product success. In this instance, Coca-Cola created a product that it believed satisfied the needs of its clients, but ultimately, consumers failed to recognize its worth, hence it is regarded as a flawed product innovation. If the worth of these products is not understood by the buyers, they may not succeed in the market. For instance, in January 2006, ESPN Mobile introduced a $400 Sanyo-branded phone with exclusive ESPN content and video. Because it was expensive causing consumers having difficulty perceiving its worth, few people purchased it, which led ESPN to rapidly discontinue the service as well as the item's release to be a failure [3]. A successful launch strategy would enable customers to perceive the value of the product and hence drive commercialization. According to Schilling and Shankar, the business viability of a new product could be greatly dependent on the influence of the approach employed by those who bring it onto the marketplace and commercialize it [8]. There are seven components of the marketing of creativity construction that were developed by Chiesa and Frattini in 2011 and include timing of introduction and preannouncement, distribution channels, targeting and positioning, product configuration, advertising and promotion, inter-firm interactions, as well as pricing strategy [9].

3. Benefits of New Product Development

With the substantial risks involved, most organizations' long-term growth depends on new product development. According to Dereli, shifting market dynamics and competitive landscapes push businesses to innovate, and creating new products is crucial for businesses to thrive in the global market as well as boost economic growth [10]. Thus, by changing and refining current products, introducing new product lines, or developing disruptive innovations that have a significant market-transformative impact, new product development contributes to the enhancement of a company's competitive advantage. Taking Coca-Cola as an example, competitive factors in the external environment need to be taken into account when determining whether it needs to invest in new product innovation. Competition in all aspects of the beverage industry (advertising, price, product proliferation, service, etc.) is intensifying with an increasing number of companies enter this market [11]. The Coca-Cola Company's main and strongest competitor is PepsiCo, which was founded 12 years after Coca-Cola in terms of business competition. Due to the creation of "complementary" or "synergistic" business lines, PepsiCo enjoys a competitive advantage over Coca-Cola [12]. Because of the resemblance in manufacture, flavor, and pricing strategy, Pepsi becomes an alternative to Coca-Cola. In this situation, the Coca-Cola Company needs an effective strategy to defeat its rivals. Therefore, product innovation becomes a key solution to survive in the competitive market. Although the C2 launch was considered a failure, it laid the groundwork for Coke Zero's substantial success to some extent, as Coca-Cola understood more precisely what its customers really wanted, making it more competitive in the market. According to Kuncoro and Suriani, firms possess the capacity to sustainably maintain the goods they sell in use by consumers via creation as a means of an edge over rivals that allows them to address consumer concerns regarding the quality of the goods and shifting requirements and even to safeguard themselves against rivals' threats [13]. This

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is done with the primary goal of fulfilling market demand. Innovative goods and services aid in growing market share in addition to increasing competitive advantages and reaping financial rewards. In light of comparable advertising strategies (such as product quality, price, communication, and distribution), innovator goods obtain a persistent share of the market above identical following items [14]. A further investigation by the IBM Institute for Business Value reveals that between 2008 and 2012, the top ten most innovative businesses experienced a 7% annual growth rate in their share of the market [15]. Every aspect of this data points to the existence of significant and long-lasting market share benefits for new items that succeed in the marketplace.

Furthermore, it is important to recognize the advantageous impacts of innovative products on society as a whole. Businesses can accomplish economic growth through the development of new products, that in turn increases production and job creation and may result in commercial expansion and improved welfare for society. Several novel items also come with brand-new advancements in technology. The latest technology devices, including cell phones and laptops, are now affordable while being crucial in their daily lives due to the explosive progress of network technology for computers and digital technological advances in the 21st century. The public's tangible and cultural expectations for daily life have increased owing to these ground-breaking products, considerably expanding the scope of their experiences and deepening their comprehension of the natural environment.

4. Strategies

4.1. Applying Stage-gate System

Innovative product development has a broad impact that is essential to business as well as to society. Three suggestions are therefore made with the purpose of control the potential exposures associated with new product development. Using the Stage-Gate approach to ensure a proper new product development process is one plausible answer to this challenge. The the stage-gate approach system is utilized as both a conceptual and operational paradigm for managing a new product from conception to its introduction [16]. This constitutes a manual procedure for overseeing the development of new products with the objective of enhance effectiveness and productivity. While a phase's goals have been achieved, management decides to initiate a stage-gate meeting with the aim of reviewing the procedure and decide whether the requirements are satisfied in order to move on towards the subsequent stage, go over the resource allocation plan for the tasks in the following stage of work, get additional details, or end the project at that point [17]. With the support of this strategy, the company is able to steer clear of problematic product development initiatives immediately and change the course of the product's creation. The transition to a digital environment with quicker cycle times is difficult, though [18].

4.2. Including Customers into the Process of Product Development

Involving consumers into the item's creation procedure and request their commitment to purchasing products prior to the start of any final development and manufacture is another strategy to prevent costly product failure. The reason for this is due to the fact that as customer demands keep evolving and both the quantity and quality of understanding needed for creativity keeps increasing, the task to innovate gets more difficult. Since numerous small and medium-sized enterprises cannot afford the expenses associated with innovation on themselves, they are starting to establish partnerships with other businesses to share the costs, expertise, and technology required for developing successfully. The new Chicago-based apparel company Threadless is one of the businesses that has followed this strategy. This business is dependent upon a network of customers, including both novice and experienced fashion designers, who provide, review, and approve every creation. By

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only producing the designs that obtain the required number of pre-orders from interested clients, this method secures the commercial success of any given item. Ogawa and Piller states that customer loyalty as a whole facilitates the direct conversion of market research expenditures (particularly the process of determining which potential new items customers are willing to purchase) into sales [19]. It is possible to drop a potential product before the business invests an excessive amount of money for its subsequent development if it does not obtain the anticipated pre-order amounts, lowering the risk associated with creating a product.

4.3. Establishing the Right Launch Strategy

It was mentioned above that companies without a suitable launch strategy can result in customers not realizing the value of the product, hence a properly developed commercial launch strategy is essential. The launches of products are frequently the most expensive, dangerous, and poorly organized stage of the whole manufacturing procedure [20]. The introduction strategy is described using terminology that is similar to that of a marketing plan: target markets are identified, roles are created for the four elements of marketing (product, price, place, and promotion), financial results are projected, and project control is maintained [21]. In terms of defining its target audience, Coca-Cola's entire marketing strategy failed owing to the mis-definition of its target customer's preferences, which led to the announcement of its discontinuation in 2007. Therefore, prior to the launch of the product, adequate market research is required, including identifying target customers and investigating information related to their buying behaviour, which will provide insight on how to effectively promote the product. Meanwhile, testing and optimising the launch strategy prior to the official launch of the product will help determine an effective distribution strategy. The significance of a product launch strategy is that it ensures successful market entry, builds customer awareness of the brand and achieves maximum profitability.

5. Conclusion

The exposures of product innovation pose to the product itself, the client, and the firm are critically discussed in this essay, along with the advantages of giving the company a competitive edge and improving society. Companies may need to conduct research and produce new products based on the market and the customer to thrive and expand. However, the potentially hazardous nature of new product development is accompanied with substantial expenses as well as elevated failure rates. To mitigate the risks associated with product innovation, the essay also suggests three strategies, namely involvement of consumers in the creation of products, the stage-Gate management system, and appropriate launch plan. Overall, despite the numerous risks businesses face when investing in the creation of new products, the benefits of innovation in products for both businesses and society as a whole are tremendous and therefore companies should encourage product innovation by formulate effective risk management strategies. In addition, this paper makes recommendations for risk management in new product development and fills in where there is a gap in existing research.

References

[1] *Angelmar, R.: Product innovation: a tool for competitive advantage. European Journal of Operational Research, 47(2), 182-189 (1990).*

[2] *Bayus, B. L.: Are product life cycles really getting shorter? Journal of product innovation management, 11(4), 300-308 (1994).*

[3] *Bommer, M., O'Neil, B., Treat, S.: Strategic assessment of the supply chain interface: a beverage industry case study. International Journal of Physical Distribution & Logistics Management, 31(1), 11-25 (2001).*

[4] *Calantone, R.G., Montoya-Weiss, M.M.: Product launch and follow on. In: Souder, W.M.E., Sherman, J.D. (Eds.), Managing New Technology Development. pp. 217–248 (1993).*
[5] *Chiesa, V., & Frattini, F.: Commercializing technological innovation: Learning from failures in high-tech markets. Journal of Product Innovation Management, 28(4), 437-454N (2011).*
[6] *Chua, J. Y., Kee, D. M. H., Alhamlan, H. A., Lim, P. Y., Lim, Q. Y., Lim, X. Y., Singh, N.: Challenges and solutions: A case study of Coca-Cola company. Journal of the Community Development in Asia (JCDA), 3(2), 43-54 (2020).*
[7] *Cooper, R. G.: Stage-gate systems: a new tool for managing new products. Business horizons, 33(3), 44-54 (1990).*
[8] *Deng Yuhua.: Gateway management: An effective way to reduce the risk of new product development. Jiangsu Business Journal, (8), 126-128 (2006).*
[9] *Dereli, D. D.: Innovation management in global competition and competitive advantage. Procedia-Social and behavioral sciences, 195, 1365-1370 (2015).*
[10] *Gourville, J. T.: The curse of innovation: A theory of why innovative new products fail in the marketplace. HBS Marketing Research Paper, (05-06) (2005).*
[11] *IBM Institute for Business Value 'Strategy and Transformation Relentless Innovation From Decentralization to Systematization'. https://www.ibm.com/downloads/cas/Z9ORMKQP last accessed 2022/12/27.*
[12] *Euchner, J.: The Speed of New Product Development. Research-Technology Management, 64(5), 9-10 (2021).*
[13] *Hultink, E. J., Griffin, A., Hart, S., Robben, H. S.: Industrial new product launch strategies and product development performance. Journal of product innovation management, 14(4), 243-257 (1997).*
[14] *Kuncoro, W., Suriani, W. O.: Achieving sustainable competitive advantage through product innovation and market driving. Asia pacific management review, 23(3), 186-192 (2018).*
[15] *Ogawa, S., Piller, F. T.: Reducing the risks of new product development. MIT Sloan management review, 47(2), 65 (2006).*
[16] *Rosenau, M.D.: From experience: Faster new product development, The Journal of product innovation management, 5(2), pp. 150–153 (1988).*
[17] *Schilling, M. A., Shankar, R.: Strategic management of technological innovation. McGraw-Hill Education (2019).*
[18] *Schneider, J., Hall, J.: Why most product launches fail. Harvard Business Review, 89(4), 21-23 (2011).*
[19] *Sheth, J. N., Stellner, W. H.: Psychology of innovation resistance: The less developed concept (LDC) in diffusion research (No. 622). Urbana-Champaign, IL, USA: College of Commerce and Business Administration, University of Illinois at Urbana-Champaign (1979).*
[20] *Taylor, D.: The pharmaceutical industry and the future of drug development, 1-33 (2015).*
[21] *Terblanche, N. S.: New pharmaceutical product development: Barriers to overcome and opportunities to exploit. Journal of Commercial Biotechnology, 14(3), 201-212 (2008).*