
	<p><b>Review: Journal of Multidisciplinary in Social Sciences</b></p> <p><b>Volume 01 No 07 June 2024</b>  <b>E ISSN : 3031-6375</b>  <b><a href="https://lenteranusa.id/">https://lenteranusa.id/</a></b></p>	
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## **Product Development Strategy Analysis: A Case Study on the Manufacturing Industry in Cikarang**

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### **Abstract**



This study aims to analyze the product development strategies employed by the manufacturing industry in Cikarang. Through a qualitative research approach, data were collected from several manufacturing companies in the area using in-depth interviews and observations. The findings highlight a variety of strategies being utilized, with a primary focus on meeting consumer needs. Specifically, there is a tendency to employ derivative product development strategies, supported by directives from top management. However, the greatest challenge in producing innovative products that differ radically lies in requiring significant investment in research and development, as well as creating a conducive organizational environment. This study provides valuable insights for the manufacturing industry in Cikarang and encourages further research to involve companies in a broader region as well as to deepen understanding of product development strategies in the service industry.

**Keywords:** Manufacturing industry, Product development strategies, Research and development

### **Introduction**

Developing a new product can be compared to conquering a high and steep mountain peak, which is full of challenges that uplift and empower the teams involved. As in climbing, success in reaching the desired summit requires proper preparation, a detailed plan, and the support of a solid team that can work together using that preparation effectively. A successful product development process also requires careful and well-structured planning (Cagan & Vogel, 2002). To achieve product goals and go through the Fuzzy Front End stage, teams with diverse fields of science must work collaboratively. This is necessary so that the products produced are in accordance with the needs, desires, and aspirations of consumers. The strategy of developing new products within the company is integrated with the overall strategy of the company. According to Ansoff and Stewart, there are four alternative strategies for new product development: first-to-market, follow-the-leader, me-too, and application engineering, as cited by Morse & Babcock (2007).

According to Reinertsen, the product development process has undergone an increase in specificity and dynamic, requiring continuous improvement to achieve a better level, as stated by Hariandja (2004). The company, in order to meet the needs of consumers, continues to undergo dynamic changes in its products, making the development of new products the main engine of the company's overall growth. The management of the product development process is key, as stated by Hariandja (2004). Increasingly complex competition and rapidly changing markets underscore the need for manufacturing companies in Indonesia to move faster in

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response to consumer preferences. Information from a study conducted by Information Resources Inc. (IRI) in 2000, as noted by Schneider (2004), shows that 52% of the 21 categories of packaging products introduced to the market have failed, highlighting the importance of the right strategy in the development of new products. Factors such as human resources, infrastructure, culture, and sustainable innovation underpin the strategy.

Launching a new product is one of the strategies chosen by companies to maintain their competitiveness in the market, with various approaches that can be used, such as creating an entirely new product, adopting different processes, or using existing or new infrastructure. The product development process can involve cooperation between top-level management and a top-down approach or vice versa, depending on how the innovation process is implemented to produce the product. The role of innovation is very significant in creating new products, because innovation has the ability to change consumer habits and behaviors with its impact that can be minor or major. Innovation also requires company competencies and additional assets that can radically improve or even change the company's condition. The types of innovation can vary, ranging from small incremental to radical changes (Markides & Geroski, 2005).

In strengthening the economy, the role of industry is very important because it is able to significantly encourage overall economic growth. The main role in supporting overall economic growth is industry, which is not only a productive component in the growth process, but also a major driver. Not only in the increase in production volume, industrial expansion is reflected in the increase in the number of goods produced (Syara, 2019). As an illustration, the increasing demand for industrial raw materials will stimulate the growth of the agricultural sector as a result of the development of the manufacturing industry. On the other hand, the growth of the service sector will also occur due to the need for banking and marketing services that support the development of the manufacturing industry. The impact of this is an increase in job opportunities and people's income. Therefore, the country can increase its economic growth by encouraging the expansion of the manufacturing industry sector which is considered the main driver in economic development (Asmara, 2018).

As a country in the development stage, Indonesia has taken measurable actions in order to face complex economic challenges. Efforts to increase economic growth continue to be carried out through strategic implementation in accordance with the vision and mission that has been set. One of the approaches fought for is through the path of industrialization, a strategic move that focuses attention on the development of the manufacturing sector. As is known, the manufacturing sector plays a major role in the development scheme of developing countries, considered as the main driver that will spur the growth of other sectors such as services and agriculture. In Indonesia, the manufacturing sector has recorded substantial growth, especially since the introduction of Law No. 1 of 1967 concerning Foreign Investment (FDI) during the New Order era. The move, which aims to open the door to foreign investment to boost lagging economic growth, has had a significant impact. However, the process of industrialization in Indonesia has started from the period from 1950 to 1965, but it has been hampered by political dynamics that affect the smooth running of economic activities, as reported by Lestari (2017).

Manufacturing, as an entity that is significantly affected by the progress of the Industrial Revolution 4.0, is not only fixated on the metamorphosis of the manufacturing process, but

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also radiates to all corners of the industrial value line. The impact triggered the birth of an innovative digital business model, aiming to achieve peak efficiency and improve product quality. Nonetheless, in the light of progress, the shift in the direction of technology towards automation replacing the role of human workers by mechanical entities raises heightened concerns, intersecting with the risk of losing the lead by local business entities. Research conducted by the International Labour Organization (ILO) in 2016 painted a picture of the future, estimating that automation has the potential to take over up to 56 percent of jobs in a number of countries, including Indonesia, the Philippines, Thailand, Vietnam, and Cambodia (Nugroho & Wahyuni, 2019). The main challenge faced by Indonesia's manufacturing industry sector involves the risk of creating a dissonance between the level of efficiency and productivity in each manufacturing subsector. The dissonance may occur due to structural unevenness in the market, where the dominance of several business entities colors the market portion in each manufacturing subsector. In addition, empirical observations show that the level of technology adoption and productivity in Indonesia's manufacturing industry sector still shows a relatively low tendency when compared to productivity sourced from capital and labor (Etty Puji Lestari & WSU, 2017).

Faced with significant challenges and competition, the manufacturing industry in Indonesia is currently struggling to create new products that can change the direction of revenue and influence consumer preferences. The opportunity for success in competition must be carefully seized without underestimating its complexity. Comparative advantage is no longer sufficient in a business field that demands high intensity and focus. Innovation and design have become the main keys in seizing market share in the current era of the creative economy. In this context, innovation in the development of new products and services has become a major driver for large companies to maintain their dominance, accompanied by continuous efforts to improve their capabilities and competencies in various industry domains.

There is still a lack of research that reviews the crucial factors that lead to the success of the new product development process in Indonesia, especially in the context of the manufacturing industry sector. Therefore, there is significant value in exploring more deeply the key factors that influence the achievement of success in new product development efforts for manufacturing companies. This research was initiated with the aim of being an educational platform and an important source of contribution in improving Indonesia's competitiveness on the increasingly competitive global stage. The central focus of the study lies in the analysis of the strategies adopted by companies in drafting and implementing their new product development initiatives.

## Method

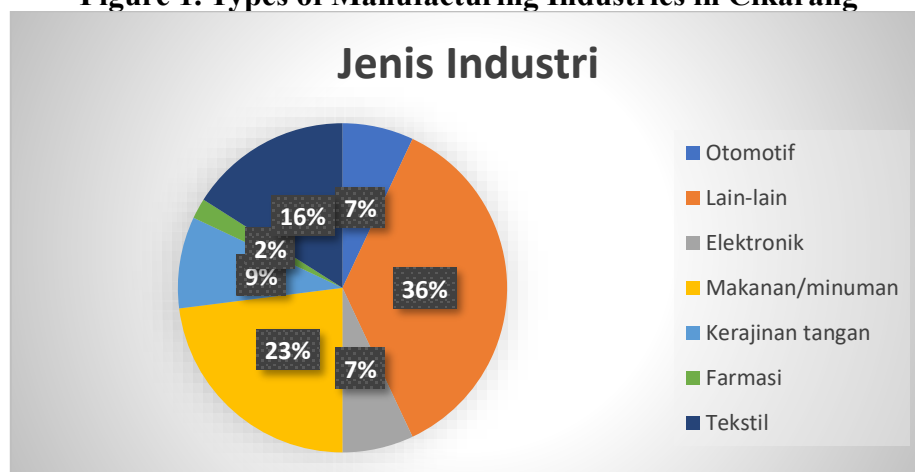
This research method adopts a qualitative approach to comprehensively understand the product development strategies used by the manufacturing industry in Cikarang. Data was collected through in-depth interviews with relevant managers and staff, as well as through direct observation of the production and product development environments at the various manufacturing companies sampled. The selection of the sample was carried out based on inclusion criteria that included variations in the size and industry field of the company. Data analysis is carried out with a qualitative approach using thematic analysis techniques to identify

patterns, themes, and trends in product development strategies. The validity of the data is ensured through consistency checks between different data sources and in-depth interpretation, while the reliability of the data is observed through the consistency of findings between different researchers. The study also adheres to the principles of research ethics, including information confidentiality and obtaining permission from the company being researched before conducting interviews and observations. Thus, this research method is designed to provide a holistic understanding of product development strategies in the manufacturing industry in Cikarang.

## Results and Discussion

The focus of this research covers various sectors of the manufacturing industry, including but not limited to the food/beverage industry as much as 22%, the textile industry as much as 16%, the handicraft industry as much as 9%, the automotive industry as much as 7%, the electronics industry as much as 5%, and more than 38% from other industries such as pharmaceuticals, engineering, fiberglass, shoes, furniture, packaging, telecommunications, and information technology. By including these various types of industries, this study offers a fairly complete picture of the panorama of the manufacturing industry in Cikarang. It should be noted that not all manufacturing industry entities listed in the Indonesian Industrial Classification Directory are included in this study. This is due to the fact that some companies that are the subject of research do not have divisions or departments explicitly devoted to product development, product engineering, product planning, or research and development. As a result, only companies with relevant organizational structures were included in this study, as reflected in the diagram in Figure 1.

**Figure 1. Types of Manufacturing Industries in Cikarang**



From the analysis of the data, it can be concluded that in terms of company size, there are around 13% that are included in the micro category, 30% in the small-scale category, 36% in the medium-scale category, and 21% in the large-scale category. This distribution of data, illustrated in Figure 2, reflects the general characteristics of company size in Indonesia's manufacturing sector.

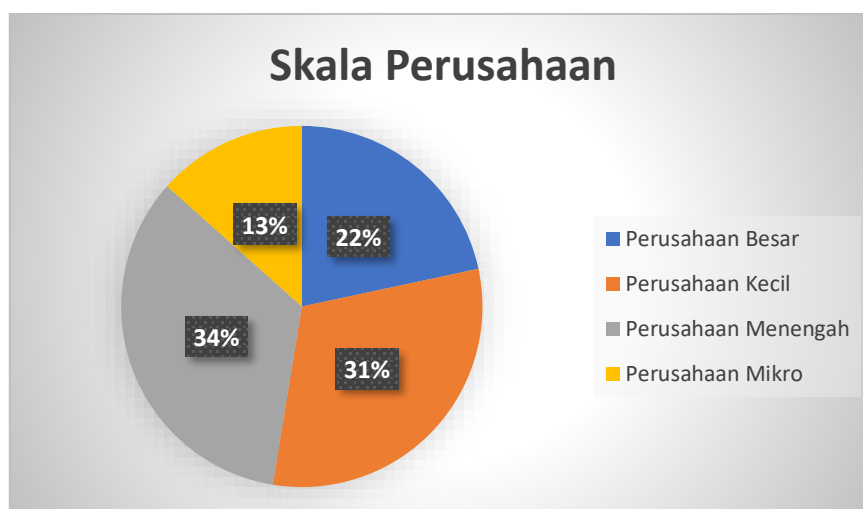


Figure 2. Enterprise Scale

In the company's new product development strategy, sample data shows that it involves product development that presents new innovations as well as improvements in the quality of existing products. This confirms that in a highly competitive market, companies must be able to provide an advantage that differentiates their products from pre-existing products. Not only that, not all products that give rise to differentiation require changes in processes and machines from previous products. Factors such as assets, efficiency, infrastructure, and financial resources have an important role, as well as depending on the scale and scope of the company's operations. It has become difficult to maintain competitiveness with limited processes and infrastructure in this era of competition. Therefore, the company strives to run its operations with a high level of efficiency while remaining responsive to the ever-changing needs of its consumers.

With more than 44% of companies determined to be pioneers in product development strategies, they are looking to introduce completely new products to the market. They realize that the product development process requires mastering new skills to create products that are of quality, unique, and in demand by the market. Producing an innovative product like this requires a huge investment as well as a strong marketing effort to introduce it to consumers. Meanwhile, in implementing a derivatives-based product development strategy, companies in Cikarang tend to look for opportunities by developing products that are not yet on the market, but still follow the previous product framework with a similar platform. The goal of this approach is to reduce costs and maintain existing infrastructure by utilizing more of the same components while still providing differentiation, as stated by Hariandja (2005).

Companies in Cikarang still have the opportunity to deepen their knowledge from global companies regarding the ability to innovate and create products that bring revolution. Research data indicates that only 24% of companies claim to have successfully produced truly innovative products in the market, while another 43% disagree with such claims. The need for stronger environmental support is highlighted because the innovation process is still going on at a slow pace. This encourages manufacturing companies in Indonesia to take more proactive





steps in developing new ideas rather than relying on existing ones. In accordance with the view of Clark and Fujimoto (1991), success in product development does not solely depend on increasing research and development costs, focusing on revolutionary technologies, or the introduction of new tools and techniques. However, it is also determined by the overarching consistency in the overall development system, which includes organizational structure, technical skills, problem-solving processes, company culture, and integrated strategies. This consistency must not only be reflected in the overall architecture of the system, but also in every detailed stage of work.

In a company, leadership patterns and organizational culture have a great impact on the development of innovative products. Solid leadership is not only able to present a clear vision, mission, and direction in the new product development process, but also influences the process as a whole. The findings from the study indicate that about 60% of new product development initiatives are often led by top management, while only about 12% indicate that top leadership is rarely involved in such development. Furthermore, as many as 40% of companies revealed that proposals for new product development tend to come from external parties. This emphasizes that directives for product innovation rarely come from internal initiatives, but more often come from outside the company, including from consumers and other related parties. In the context of today's creative economy, innovative ideas can emerge from different walks of life, so it is important for all departments of the company to be actively involved in the process of developing new products, whether from the top down, from the bottom up, between colleagues, from the inside out, or vice versa.

In the framework of new product development, the company's goals can be assembled in various ways, namely around 19% oriented to meeting consumer demands, 16% focusing on improving quality, 15% pursuing the opening of new markets, 13% leading to product diversification, 10% trying to apply the latest technology, 10% seeking to reduce production costs, while only 9% prioritize readiness to follow industry trends, as listed in Figure 3. This discovery reflects the dynamics of competition in the current era, where service to consumer needs is made the top priority for the company's continuity in the market realm. This is in line with Peter Drucker's conception, which highlights that the essence of business success is quality service to consumers.

**Figure 3. New Product Development Goals**



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## Conclusion

The strategies implemented tend to be more oriented towards the development of derivative products in the manufacturing sector in Cikarang, with a relatively smaller budget allocation compared to the company's annual revenue, as well as significant direction from top management, according to the results of the study. The main focus in the development of new products is to meet the needs of consumers, which is considered a key element. To realize truly innovative products, which are characterized by clarity of differentiation and the use of high technology, substantial budget allocation in research and development is required, accompanied by a high level of commitment and consistency. It is also important to create an organizational environment that supports innovation, as well as to establish collaborations with universities and government agencies as research centers.

In order to achieve a more holistic understanding, it is recommended to involve companies in other regions of Indonesia, such as those located in Java, Sumatra, Kalimantan, and Sulawesi, taking into account the diversity of manufacturing industry samples in the next study. In addition, for a more holistic comparison, it is recommended to conduct further research on the service industry in Cikarang to gain an understanding of the differences in strategy, process, organization, and performance evaluation in the development of new products.

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