



Research Paper

A Empirical Literature The Role of Product Innovation for Companies

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ABSTRACT: High competition in the industrial world makes various companies race to create a competitive advantage through multiple strategies to survive during intense competition. Competition in the business world almost occurs in all industries and services, including batik products produced from small and medium enterprises, so producers in this industry strive for the products delivered to be accepted by consumers and even thrive in the market. Consumers do not just buy it immediately, but they identify patterns and fashions in purchasing a product in advance. Especially for batik products, consumers must be selective in determining which batik product choices to buy, one of which is by paying attention to the development of innovations carried out by batik companies. This research aims to find new products, product development, product design, and product variance. The results showed that product innovation measured through four dimensions, namely new products, product development, product design, and product variants showed quite good results, meaning batik craftsmen innovated in the products they made, such as innovations in patterns, coloring, and design although still low in the success of new products.

KEYWORDS: Competition, Innovation, Products

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I. INTRODUCTION

The batik center business competition phenomenon in Cirebon Regency experienced a decrease in exports abroad that exceeded 30% with marketing areas such as Italy, Spain, the United States, and Australia (Miyanto, 2015). The occurrence of market declines both on a national and international scale in batik centers in the Ciayumajakuning region is caused by a decrease in competitiveness. According to Disperindag, chairman of the association and owner of the batik industry in the Ciayumajakuning part, there are several problems faced, among others, there is still a lack of cooperation between fellow batik entrepreneurs and collaboration between entrepreneurs and suppliers, the lack of government role in the development of batik industry centers so that of some batik centers there are only a few that show excellent growth.

Another phenomenon that occurs in Batik entrepreneurs in the Ciayumajakuning region is caused by the Covid 19 pandemic, which significantly impacts the sustainability of the business due to the policy of social scale restrictions that cause business activities to feel the impact directly, primarily related to marketing activities carried out in modern and traditional markets. In addition to being driven by the Covid 19 pandemic, the fundamental problems that occur in batik entrepreneurs are obstacles including the low quality and creativity of batik to produce monotonous motives, issues about copyright that are still neglected, export problems that have decreased drastically because they are considered in terms of quality and selling value that are considered relatively high (Lipsus, 2016).

One of the efforts made by the local government of Cirebon Regency to develop a small batik industry and increase sales is to build a batik market specifically to accommodate small batik industries. But the fact that the batik market until now is still empty of visitors. Batik consumers prefer to buy batik to batik showrooms that offer more diverse types of batik and more convenient facilities. The small batik industry in the Ciayumajakuning region has great potential to develop, but the phenomenon shows there are still many weaknesses. This became the goal of researchers to research the small batik industry in the Ciayumajakuning region.

Innovation will increase the added value of a product; innovation will create a new product that can provide better solutions to the problem solving faced by consumers. Product innovation is closely related to

purchasing decisions (Ginting & Sembiring, 2018; Lahindah & Siahaan, 1978; Sujarwo & Matrutry, 2021) because innovation can make different products in the eyes of consumers so that consumers are more interested in buying these products than competitors (Lee et al., 2016; Poplavska et al., 2018).

Table 1. Preliminary Research Results Data on Product Innovation Variables

No.	Product Innovation	Average
1	New products adapted to time trends	4.033
2	New products made do not leave the characteristics of existing products	4.167
3	New products are always created	3.200
4	Product development following the wishes of consumers	3.867
5	Product development incorporating local cultural values	3.800
6	Creates differentiation	2.933
7	Improved product quality	4.200
8	Packaging innovation	2.733
9	Different patterns and designs	3.900
10	The design of the favored product	4.067
11	The company is constantly creating new product designs	3.767
12	Diverse products	3.567
13	Diverse models	3.500
14	Diverse quality	3.900
15	Different sizes	3.867

Source: Analysis results, 2019

Based on preliminary research results on respondents' perception of product innovation, the average respondent's assessment of this variable is perceived quite varied. The highest rating occurred on the indicator of improvement in product quality with an average of 4,200, and new products made did not leave the characteristics of existing products with an average of 4,167. The lowest rating on the indicator gave rise to differentiation with an average of 2,933 and packaging innovation with an average of 2,733.

Innovation is a research, development, and engineering activity to develop the practical application of new scientific values and contexts or new ways of applying existing science and technology to a product or production process (Everett M. Rogers, 1983). Innovation is an idea, practice, or object understood as something new by each individual or other user unit. The characteristics of innovation consist of: relative advantages in the economic field (social prestige factor, comfort, and satisfaction), resilience/strength (the level at which innovation is perceived as something consistent with existing values, past experiences, and the need for potential users), complexity (the degree to which innovation is represented as challenging to understand and use), trial power (the degree at which innovation is within certain limits). Can be piloted), observability (the rate at which others can see the results of innovation) (Sumarwan, 2010). The statement is relevant to the effects of research conducted by (Iwu, 2010) that innovation is one of product development about improving product quality.

II. LITERATUR REVIEW

Product innovation can be interpreted as an effort made by product makers to improve, improve, and develop products produced during this time. According to Moreau et al. in Sutrasdawati (2008), Product Innovation can come from improvements or changes to existing products or can also be through products that are entirely new and other than before. At the same time, Mix et al.; in Sutrasdawati (2008) said that innovation includes the process of observing consumers find new things that can satisfy the desires and needs of consumers. To win the competition, the company is expected to present new ideas and produce innovative products to increase sales. The goal is to meet market demand so that innovative products create competitive advantages for companies (Han et al., in Sukarmen 2013). Through product innovation, the company has an advantage in facing competition (Friar, 1995; Hendrayanti & Nurauliya, 2021; Moses et al., 2018) and meet market demand (Dawid et al., 2021), thus creating a strategic position (Salehi & Abdollahbeigi, 2017).

According to Hurley and Hult et al. in (Kusumo, 2016), innovation is a process of adaptation of companies in creating ideas about new products that can be obtained from consumers and competitors. In Sismanto's research (2016), it was conveyed that "market orientation and product innovation, both simultaneously and partially, have a positive effect on competitive advantage." The results are in line with (Adhikari, 2012; Harjadi et al., 2020), who found that product innovation affects competitive advantage. This means that companies that can design their products following the wishes of customers will survive during competition because their products are still in demand by consumers. The research was supported by (Eka, 2019; Lin & Lu, 2006) concluded that the company's ability to continue to innovate the products/services produced would keep the product following the wants and needs of customers so that the innovative product has an advantage in competing (Cooper & Edgett, 2010).

Products developed are not always in the form of goods but can be service improvements. According to Law Number 19 of 2002, innovation is a series of developments by applying science and technology to a

product. Innovation of a product can occur because of several things, including feedback from customers, combining existing things, and discoveries. This innovation process must continue to be done so that the product continues to develop, has improvements to achieve perfection, which can be done by utilizing science and technology. In life, innovation in self aims to make humans have an increased quality so that they have a lot of new abilities that they did not previously have. Similarly, in a product, specific goals want to be achieved when making innovations in the development.

In life, innovation in self aims to make humans have an increased quality so that they have a lot of new abilities that they did not previously have. Similarly, in a product, specific goals want to be achieved when making innovations in the development.

Product innovation is categorized as new products for the world, new product lines, additions to existing new product lines, improvements and revisions to existing products, re-determination, and cost reduction (Cynthia Vanessa Djodjoho, 2020). According to (Zimmerer, 2008, p. 57), indicators of product innovation are design changes, technical innovation, and product development. (Fontana, 2011, p. 315) mentions product innovations that include changes to product packaging, building, improving the packaging of a product so that it is more innovative, product size, creative size diversity, process innovation, changing and building production processes to be more efficient, distribution system innovation, making distribution channels more straightforward and management innovation, aimed at making organizational management more flexible and agile in dealing with changes in the corporate environment. In research (Soemali, 2015; Soenarto & Otik, 2018) explained the existence of several indicators of product innovation, namely; Product expansion (line extensions), namely product expansion is a product that is still familiar to business organizations but new to the market. Product imitation (me-too products), which is a product imitation, is a product that is considered further by the business but familiar with the market and new products (new-to-the-world products), i.e., new products are products that are considered new both by industry and by the company.

(Kotler, 2016, p. 454) explains that product innovation consists of new product dimensions for the world, new product lines, additions to existing product lines, improvements and revisions to existing products, re-determination, and cost reduction. The research conducted by (Hidayat & Yuliana, 2018) uses the dimension of product innovation consisting of product quality, product variants, product styles, and product designs developed by the researcher to be adapted to the characteristics of his research. Lukas and Ferrell (Cynthia Vanessa Djodjoho, 2020) explains the existence of several indicators of product innovation, namely: product expansion (line extensions), product impersonation (me-too products), and new products (new-to-the-world products). New products are products that are considered new both by the business and by the company. Based on this explanation, this study set the dimensions of product innovation as new products, product development, product design, and product variance.

III. RESEARCH METHODS

This research was conducted to describe product innovation consisting of new products, product development, product design, and product variants. This research uses an economic science approach, primarily focused on product marketing. This type of research is descriptively quantitative. Descriptive research aims to obtain clearly about a particular situation or circumstance. In contrast, verification research aims to clarify the relationship of a variable (testing hypotheses) through data collection in the field. The research method used is the survey method, which is a survey method that takes samples from the population using questionnaires and interviews as its primary data collection tool.

Calculation of the number of samples using the formula Slovin, obtained a sample of 227 respondents. Sampling in this study uses proportional cluster random sampling, which is sampling that considers elements or categories in populations scattered by cluster. By using the sampling technique, a sample was obtained in each region, namely Cirebon Regency as many as 217 respondents, Indramayu Regency as many as 7 respondents, Kuningan Regency as many as 2 respondents and Majalengka Regency as many as 2 respondents. The next sample withdrawal technique is to set the selected sample criteria, namely 1) the sample has three years of work experience because it is considered to be experienced in the field of batik business, 2) the company has a permanent workforce, meaning that the company is stable and can produce continuously, 3) conduct production process activities, 4) conduct online sales. The analytical technique used is descriptive analysis. Descriptive analysis is a method that is done by collecting data and information relevant to the research problem for the next this analysis is to provide information about the actual variable conditions that are done by calculating the value of the frequency distribution, average value, percentage, standard deviation and range of values.

IV. RESEARCH RESULTS AND DISCUSSION

Product innovation variable description analysis is intended to know the characteristics of product innovation analyzed through frequency distribution, percentage, average value and standard deviation.

Table 2 Descriptive Analysis of New Product Dimensions

No	Indicator	Distribution of Respondent Answers										Average	St. dev
		1		2		3		4		5			
		F	%	F	%	F	%	F	%	F	%		
1	New products adapted to time trends	3	1.3	12	5.3	64	28.2	79	34.8	69	30.4	3.877	0.951
2	New products made do not leave the characteristics of existing products.	4	1.8	17	7.5	64	28.2	71	31.3	71	31.3	3.828	1.014
3	New products are always created.	4	1.8	14	6.2	74	32.6	77	33.9	58	25.6	3.753	0.964
											Summary	11.458	2.929
											Average	3.819	0.976

Source: Analysis results, 2019

Table 2 shows that the average dimension value of the new product is 3.819 with a standard deviation value of 0.976. The value is between the range of 2.843 to 4.793 which indicates that the new product is in the category quite well to very good. The results of this analysis show that batik SMEs in the Ciayumajakuning region always innovate batik products that are tailored to the development of market tastes today.

Table 3 Descriptive Analysis of Dimensions of Product Development

No.	Indicator	Distribution of Respondent Answers										Average	St. dev
		1		2		3		4		5			
		F	%	F	%	F	%	F	%	F	%		
1	Product development in accordance with the wishes of consumers	0	0	10	4.4	59	26.0	96	42.3	62	27.3	3.925	0.841
2	Product development incorporating local cultural values	1	.4	6	2.6	63	27.8	82	36.1	74	32.6	3.982	0.869
3	Creates differentiation	2	.9	12	5.3	56	24.7	105	46.3	51	22.5	3.845	0.863
4	Improved quality	4	1.8	12	5.3	50	22.0	73	32.2	88	38.8	4.009	0.991
											Summary	15.761	3.564
											Average	3.940	0.891

Source: Analysis results, 2019

Table 4.14 shows that the average value of product development dimensions is 3,940, with a standard deviation value of 0.891. The deal is between 3,049 to 4,831, which indicates that product development is in the category of quite good to very good. This analysis shows that batik SMEs in the Ciayumajakuning region are always doing new product development. The results of this analysis do not offer any significant differences from the study results of new products. Batik SMEs in the Ciayumajakuning region pay more attention to aspects of product innovation and product development in maintaining their products in the market.

Table 4 Descriptive Analysis of Product Design Variables

No.	Indicator	Distribution of Respondent Answers										Average	St. dev
		1		2		3		4		5			
		F	%	F	%	F	%	F	%	F	%		
1	Packaging innovation	2	.9	12	5.3	58	25.6	109	48.0	46	20.3	3.815	0.847
2	Different patterns	1	.4	5	2.2	55	24.2	96	42.3	70	30.8	4.009	0.825
3	The design of the favored product	1	.4	8	3.5	63	27.8	105	46.3	50	22.0	3.859	0.813
4	New product design	3	1.3	8	3.5	64	28.2	78	34.4	74	32.6	3.934	0.931
											Summary	15.617	3.416
											Average	3.904	0.854

Source: Analysis results, 2019

Table 3 shows that the average value of product design dimensions is 3,904, with a standard deviation value of 0.854. The deal is between 3,050 to 4,758, which indicates that the product design is in the category quite nicely to very good. This analysis shows that batik SMEs in the Ciayumajakuning region always do product design. The results of the study of product design are pretty consistent with the results of new product analysis and new product development with an average value closeness, so it can be concluded that the relationship between new products, product development, and product design is very close.

Table 5 Descriptive Analysis of Product Variance Variables

No.	Indicator	Distribution of Respondent Answers										Average	St. dev
		1		2		3		4		5			
		F	%	F	%	F	%	F	%	F	%		
1	Diverse products	1	.4	13	5.7	49	21.6	105	46.3	59	26.0	3.916	0.861
2	Different models	1	.4	8	3.5	54	23.8	103	45.4	61	26.9	3.947	0.829
3	Diverse quality	4	1.8	12	5.3	45	19.8	105	46.3	61	26.9	3.912	0.913
4	Different sizes	1	.4	10	4.4	62	27.3	102	44.9	52	22.9	3.855	0.837
Summary											15.63	3.44	
Average											3.908	0.860	

Source: Analysis results, 2019

Table 4 shows that the average value of product variance dimensions is 3,908, with a standard deviation value of 0.860. The deal is between 3,048 to 4,768, which indicates that the product variance is in the category quite good to very good. This analysis shows that batik SMEs in the Ciayumajakuning region always do product design. The results of the study of product variance are pretty consistent with the previous analysis results. This shows that product development and product design results will be more varied. This analysis indicates that batik products produced by SMEs in Ciayumajakuning have many variants ranging from color, pattern, and fashion.

The research results on product innovation variables are divided into aspects of new product dimensions, product development, product design, and product variance. From the analysis results, most respondents perceived that product innovations currently carried out by batik artisans in the Ciayumajakuning region of West Java were considered relatively good, with an average value of 3,898 and a standard deviation value of 0.890. The results of this study indicate that batik artisans in the Ciayumajakuning region of West Java have made several innovations to the products they produce. This innovation is reflected in the efforts of batik craftsmen to make several innovations in patterns, colors, designs, and development in market segmentation. The results of the analysis showed that the indicator of product development by integrating the value of a region's distinctiveness, improving the quality of materials, quality of the pattern, and design is the highest indicator on the variables of product innovation, while the lowest indicator on the dimension of product innovation is on the manufacture of new products and aspects of packaging innovation are still considered difficult to develop by batik craftsmen in Ciayumajakuning West Java.

The weakness experienced by the craftsmen from the results of the analysis obtained two indicators, namely batik artisans in the Ciayumajakuning region of West Java, who is considered weak, is about the development of new products. Weaknesses in developing new products result in a lack of product diversity and less market share. Product diversity can be achieved if an industry develops its products or innovates. By doing product innovation, will have a positive impact on the company/industry in the development of market share and target market. Other problems craftsmen face regarding packaging innovation are considered not to play a maximum role. The causative factors of batik artisans in the Ciayumajakuning region of West Java are two factors that dominate it related to limitations in product development and packaging design, namely in technology and market conditions. The technology owned by batik craftsmen in the Ciayumajakuning region of West Java is still classified as sederhana, so batik artisans in the Ciayumajakuning region of West Java still have difficulty competing, especially for the national scale market.

V. CONCLUSION

One of the main goals of innovation is to do or create something different from competitors in the same field. It can also be by innovating the way our system of work of the company. This innovation can save the company resources and make the business superior. The importance of business innovation is done to survive, succeed, and continue to grow with the times faced with various business upheavals; without making innovation, the business will feel less attractive and less desirable. Innovative becomes one of the keys to the success of a business to win the market competition. Creating a new and different product from other products

will be of more value than other products. With innovation in the business, that is lived is very important. Creating the latest products will make the business more superior in competing so that indirectly the benefits received will patch up the value of the company. Companies that can innovate continuously can also beat every competitor. The benefits received are companies can continue to grow, and products are also increasingly known by the entire community. Product innovation measured through four dimensions, namely new products, product development, product design, and product variants, showed quite good results, meaning batik craftsmen innovated in their products, such as innovations in patterns, coloring, and design, although still low in new product productivity.

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