

# ANALYSIS OF VALUE CREATION: PRODUCT INNOVATION, PRODUCT DEVELOPMENT AND PRODUCT QUALITY TO COMPETITIVE ADVANTAGE

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## Abstract

The dynamics of the business environment in the midst of the Covid19 pandemic since few months ago until now has made business people think more creatively so that their business activities can survive. Through innovation, product development, and improvement of prime product quality, it is hoped that it can create a competitive advantage compared to other similar products. From the research conducted on the object of research, Bakpia kukus brand Tugu Yogyakarta, obtained results from 150 respondents using random sampling techniques as follows: (1) the influence of product innovation variables has a positive and significant effect on competitive advantage; (2) product development variables have a positive and significant effect on competitive advantage; and (3) product quality variables also have a positive effect on competitive advantage. Then it is necessary to add also based on the research results also obtained that simultaneously, the variable innovation, product development and quality have a positive and significant effect on the competitive advantage of steamed bakpia products with the Tugu brand of Yogyakarta.

**Keywords:** value creation, product innovation, product development, product quality, competitive advantage.

## INTRODUCTION

As one of the processed green bean products, "bakpia" has been known as one of the characteristics of Yogyakarta food. On its first presence, it was in great demand by consumers, therefore bakpia products has grown and developed with various names and brands. This gives consumers more choices. Until now, many are found in several corners of the location that still offer these bakpia products.

During the COVID-19 pandemic, it is undeniable that the impact will also affect MSME actors. Based on data from Smesco Indonesia (Theosbarata, 2020) that from March 31 to April 20, 2020, a total of 35.9 MSMEs in the food processing sector experienced a decline in turnover of more than 60%.

As one of the businesses included in the category of MSMEs, Bakpia Kukus Tugu Yogyakarta is a product that has more value compared to existing products and in its development has now become one of the flagship products of Yogyakarta with sales outlets spread across several locations. Quoted from research Damanpour & Evan, (1984) that the enabling conditions for a company to gain profit is the company's ability to innovate. Therefore, business actors possessing the correct choice of innovation strategy will be able to compete with companies that already possess their own market segments, so as an effort to develop marketing reach, one of which is by cooperating with various online buying and selling platforms as well as maintaining shares to reduce the risk of reduced profit.

This study develops previous research conducted by Pamungkas, Winarni and Asih (2014: 1-59) which found the fact that the bakpia industry as one of Yogyakarta's culinary specialties experienced rapid development, resulting in quite tight competition between similar culinary business actors.

The novelty in this study are value creation variables which include product innovation, product development and product quality in increasing the competitive advantage of steamed bakpia products in a product environment that has previously been full-filled with bakpia products that have similarities to one another. It is hoped that by providing this value creation, it can provide added value for steamed bakpia to be able to compete with products that have been on the market before.

For bakpia products on the market today, you can find various trademarks. While the products offered have similarities with one another. In this case, it can be interpreted that the bakpia product market has reached saturation.

The development of consumer knowledge of bakpia products that keeps increasing has also made consumer expectations of the product higher. People are increasingly selective in choosing bakpia on the market. Especially with the presence of varied brands. In the end, consumers do not only consider the price as the factor in

consideration, however there are other factors taken into consideration, including flavor variants, promotions, flavors and so on. Dooley (2002: 85-103) argued that the most important thing for the success of new products is excellence in new product development.

Previous research (Kurniawan, 2010), revealed that there are four factors driving the development of culinary tourism in Yogyakarta, namely: i) Yogyakarta has special foods that become the interest of tourists, ii) increasing tourist interest in visiting Yogyakarta supported by the availability of dining options, iii) the availability of a center for selling typical food as souvenirs, and iv) the availability of typical food itself as one of the driving factors for tourists, especially if it is managed and developed in a more professional and integrated manner.

## LITERATURE REVIEW

### Product Innovation

Prajogo (2006: 218-225) in his research found a close relationship between innovation (covering products and processes) and business performance (covering business growth, market and profit).

Product innovation in question can be divided into innovations on: product excellence; product similarity, and product costs (Gatignon & Xuereb, 1997).

Hills (2008) argued that innovation is an idea, practice, or object considered new by its users that can provide alternative choices, increase benefits to customers, therefore it will improve the quality of the product itself.

One of the successes of the industry comes from production control which aims to protect the uniqueness of the product, the selection of quality raw materials, the availability of adequate labor, and competitive production costs (Trondsen, 2007). It is concluded that producers who want to have a competitive advantage can develop their products through innovation in the products they produce.

**H1 : The higher the degree of product innovation, the higher the competitive advantage.**

### Product Development

Hitt and Hoskisson (2001) believed that value can be created (value creation) by innovating and developing and optimizing all company resources.

Another opinion says that in the development of new products the aim is to produce products with better quality, and create new segments for these products (Pratt & Rosa, 2003).

Kotler and Armstrong (1996) stated that product development is part of a strategy to increase the company's growth by offering new products as well as modifying and offering existing market segments. Therefore, from the development of these products, it is expected to create new market segments and reduce the level of competition for existing products.

In line with the opinion of Paul (1993) that if a company wants to move forward would continue to strive to improve its product development process with the process carried out by other companies. One of them is by encouraging producers to be more creative in increasing competitive advantage through the development of ideas, ideas, thoughts on pre-existing products.

The product development indicators used in this study refer to the opinion of Kotler (2014: 399), the development of original products; improvement of existing products; product modifications and new brands developed by the company.

In addition, products development is one of the impacts of changes that arise as a result of rapid technological changes and this can support the competitive advantage of a product against other products.

**H2 : The higher the product development carried out, the higher the opportunity for competitive advantage.**

### Product Quality

More and more products that are almost the same in a market require carefulness of producers in processing the quality of the products produced.

Tjiptono (2012) argued that quality is the level of quality expected and control over the diversity of elements to achieve the expected quality to meet consumer expectations.

Research conducted by (Hendratmoko, 2018), (Soliha, Basiya, Rochmani, Darmawan, & Udin, 2019) suggested a positive performance on product quality has a positive and significant influence on consumer satisfaction. This shows that product quality has an influence on competitive advantage.

There are four product quality indicators used in this study (Kotler et al., 2005), namely durability, reliability, ease of packaging, and other characteristics attached to the product.

**H3 : the better the quality of the products offered, the more competitive advantage increases**

**Value Creation to Competitive Advantage**

Value creation is described as a form of collaborative creative, which is initiated by a company aimed at customers which allows creating innovations that are not just to satisfy customers (Prahalad, 2004: 23).

According to Mckinnon, Gowland & Worzel (2005:17-23), value creation is a form of transformation of creativity and innovation through discovery and development by producing a product for a company.

Spulber (2009) argued that companies with competitive advantages will be able to create better economic value for shareholders, consumers, suppliers than their competitors. Therefore, the success of a new product being accepted by the market is not only influenced by the quality of the product itself, but also because of market conditions, the selection of the chosen target, and the timing of introducing the product to the market and what is no less important is the market condition itself. Therefore, in value creation, it is necessary to have the ability to identify and create quality products as expected by the market.

Competitive advantage according to Kim and Mauborgne (2005) divided the competitive market into two, namely the red ocean, which is described as a market space with known boundaries and rules. Next is the blue ocean, namely the creation of new market space without any other competitors, therefore there is no competition with competitors.

Several indicators that can be used to measure competitive advantage according to (Bharadwaj et al., 2015) includes the uniqueness of a product, competitive prices compared to other similar products, not easy to imitate, not easily replaced by other products, and its existence in certain locations.

Porter (2006) divided competitive advantage can be through indicators of cost leadership, differentiation (physical structure, formula, product quality, suitability, packaging), and focus.

**H4 : the higher the value that can be embedded, will increase the competitive advantage of the product.**

**RESEARCH METHODS**

**Problem Formulation**

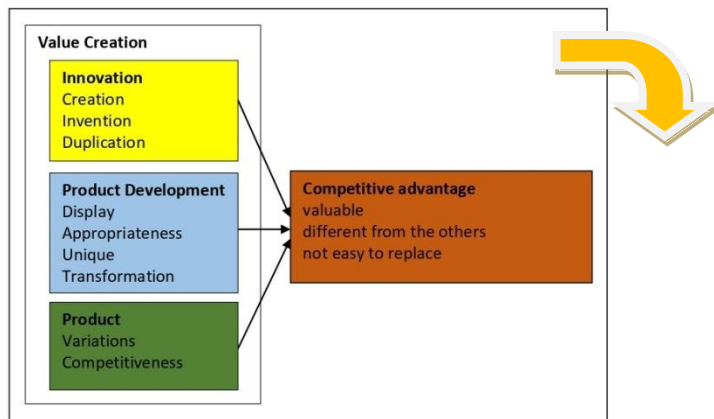
Based on the above phenomenon, several formulations of the problem can be drawn as follows:

1. How does the product innovation affect competitive advantage?
2. How does the product development variables affect competitive advantage?
3. How does the product quality affect competitive advantage?
4. How do innovation, product development and quality simultaneously affect competitive advantage?

**Conceptual Framework**

The conceptual framework in this study is as follows:

Figure 1. Conceptual framework



Source: Researcher, 2021

## METHODOLOGY

The research uses a quantitative approach. The research population is people who visit and buy Bakpia Kukus Tugu Yogyakarta from May 2020 to July 2020.

The use of Lemeshow theory (Levy & Lemeshow, 1990) is needed to determine the number of samples from the population that is not known with certainty because it uses accidental-purposive sampling technique therefore it obtained a total of 150 samples in this study.

A sample of 150 were chosen randomly using the accidental-purposive sampling method, due to certain criteria (Cooper & Schindler, 2014).

## RESULTS

As a typical food product of Yogyakarta, this steamed bakpia first operated in 2017 in Tajem area, Sleman Regency, Yogyakarta. Like a product that is still newly established compared to other similar products, Bakpia Kukus Tugu Yogyakarta when the research was conducted had 6 official outlets spread over six locations namely Jalan Kaliurang, Lempuyangan Station, Yogyakarta Tugu Station, Adisutjipto Airport, Malioboro Mall, and on Jalan Yogya- Solo Km 9. This number has not been added with several other small outlets that also sold steamed bakpia products.

The different look of Tugu Tugu Bakpia Kukus was found in the shape and texture of the bakpia which was soft, not dry like baked bakpia. With a slightly different appearance from the usual bakpia, steamed bakpia received a fairly good response from consumers. Some consumers felt a different sensation when consuming it (news.koranbernas.id)

Another different look was in the sixth outlet located on Jalan Yogya-Solo. In addition to a wider space, at this outlet, people can also directly watch how to make steamed bakpia from behind a glass.

The public's response can be seen in several outlets selling steamed bakpia almost every day, especially when the holiday season arrives. As a marketing strategy, several outlets have been placed at the center of tourist arrivals and departures, namely Tugu Station and Lempuyangan Station, Adi Sutjipto Airport.

From the results of the questionnaire obtained a description of the respondents based on age:

**Table1. Respondent Sex**

Note	Male	Female
Frequency	62	41,3
Percentage	88	58,7
Total	150	100

Source: primary data, processed 2021.

**Table2. Respondent's Income**

Income	Frequency	Percentage
2.000.000 <	29	19,3
2.000.000 – 3.000.000	57	38
3.000.000 >	64	42,7
	150	100

Source: primary data, processed, 2021

From the results of research testing obtained the following data:

**Table 3. Multiple Regression Analysis Results**

Variable	Regression Coef (b)	T-count	Sig.	Conclusion
Product innovation	0,416	6,403	0,000	Significant
Product development	0,306	4,667	0,000	Significant
Product quality	0,344	5,864	0,000	Significant

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Constant = 9,963				
Adjusted R <sup>2</sup> = 0,593				
F Count = 73, 095				
Sig. = 0,000				

Source: primary data, 2021

## Data Interpretation

### 1. Product innovation

The t-test data obtained on the product innovation variable for the t-count value of 6.403 from a significance value of 0.000 which is smaller than 0.05 ( $0.000 < 0.05$ ), and the regression coefficient with a positive value of 0.416. So the hypothesis H1: The higher the level of product innovation, the higher the competitive advantage, can be accepted. Because it is positive and significant.

### 2. Product development

In the t-test of the product development variable, the t-count result is 4.667 with a significance of 0.000 which is smaller than 0.05 ( $0.000 < 0.05$ ), and the regression coefficient with a positive value of 0.306. Then hypothesis H2: The higher the product development carried out, the higher the opportunity for competitive advantage, can be accepted. Because it is positive and significant.

### 3. Product quality

The calculated t value on the product quality variable is 5.864 with a significance value of 0.000 which is smaller than 0.05 and the regression coefficient with a positive value of 0.344. Hypothesis H3: the better the quality of the product offered, the higher the competitive advantage, it is acceptable.

### F Uji test

In the F test, the result is 73.095 with a significance value of 0.000. Because the significance value of 0.000 which turned out to be smaller than 0.05, the hypothesis H4: the higher the value that can be invested, the higher the competitive advantage of the product, can be accepted.

### Coefficient of Determination (Adjusted R<sup>2</sup>)

In the tests that have been carried out in the study, the results obtained are 0.593. Which means that competitive advantage is influenced by the variables of product innovation, product development and product quality by 59.3%, while the remaining 40.7% is influenced by other factors that are not included in the variables in this study.

## DISCUSSION

### Product Innovation towards Competitive Advantage

Data analysis shows that product innovation has a t-value of 6.404 with a significance value of 0.000 less than 0.05, and a positive regression value of 0.416. Therefore, the initial hypothesis that product innovation has a positive and significant impact on Competitive Advantage can be proven.

It can be explained that some of the product innovations that have been carried out include product design in the form of bakpia which is processed by steaming with several flavor variants, including Original Chocolate, Cheese Brownies, Chocolate Brownies, Original Chocolate, and Original Green Beans. (<https://bakpiakukustugu.co.id/>).

Product innovation is carried out to create demand for a new product in a relatively similar market, with the aim of forming a new segment for bakpia products.

### Product Development towards Competitive Advantage

Analysis of research data showed that the t-value for product development is 4.658 with a significance value of 0.000 which was smaller than 0.05. And the positive regression coefficient value is 0.305, thus second hypothesis that Product Development has a positive and significant effect on Competitive Advantage can be proven.

Product development factors that also affect competitive advantage can be explained, among others, by developing bakpia products which were originally processed by baking, then developed with a new technique, namely steaming. This is not only aimed at finding new ways of processing, it also aims to create different textures and fillings. Another development step is adequate packaging for travel without reducing the product texture during a certain period.

This has received a positive response from consumers who visited several sales outlets.

### **Product Quality against Competitive Advantage**

The results of data analysis showed that the quality of the product has a t-value of 5.863 with a significance value of 0.000, which is smaller than 0.05. And a positive regression coefficient of 0.343. Then the third hypothesis that the alleged product quality has a positive and significant effect on competitive advantage can be proven.

Quoted from the opinion of Kotler (2005) product quality can be measured from the results (performance), product appearance, product reliability and conformance. The better the quality of the product will support the competitive advantage of producers against other products, this is also supported by the commitment of producers to always maintain the quality of the products they produce and encourage consumers to make repeat purchases.

The main thing that manufacturers do in terms of product quality is that because there are still few competitors for similar products, the market share is still wide open.

### **Product Innovation, Product Development and Product Quality towards Competitive Advantage**

The results of data analysis resulted in a value of 73.094 F count, with a significance value of 0.000 which was smaller than 0.05. The fourth hypothesis was that Product Innovation, Product Development and Product Quality simultaneously to have a positive and significant effect on Competitive Advantage.

Factors supporting competitive advantage included product innovation, product development and product quality of Bakpia Kukus Tugu Yogyakarta.

Product innovation in the form of bakpia processed by steaming was expected to create a new market segment that is relatively new and with few competitors. This aims to increase the company's competitiveness in order to have a competitive advantage in the field of marketing new products. The selection of sales locations near the center of tourist arrivals and departures, including in the train station area and in the airport area. The choice of this location was not without reason, in fact this step is expected to be able to reach consumers who have just arrived or are about to leave but require practicality in finding souvenirs. Another innovation is that the opening hours of the gift shop ought to be earlier at around 06.00 am.

This steamed bakpia processing does not rule out the opportunity to develop other bakpia variants, both in terms of appearance, processing and filling variants.

In product quality, the company applied excellent quality to every product it produces. The selection of the use of raw materials, the attractive appearance of the packaging without leaving its hygiene are in accordance with the company's slogan, "In every process of manufacture to packaging Bakpia Kukus Tugu Jogja is not touched by hands because it uses sophisticated machines."

## **CONCLUSION**

Based on the results of the research and discussion above, some conclusions can be drawn as follows:

1. Product innovation has a positive and significant effect on competitive advantage, indicated by the t-count value of 6.404 and a significance of 0.000 which is smaller than 0.05 and a regression coefficient of 0.416. Product innovation can be explained in the way that the bakpia is processed by steaming, which makes the company able to create new segments in marketing bakpia products.
2. Product development has a positive and significant impact on competitive advantage. This is indicated by the t-count value of 5.863 and a significance value of 0.000 and a regression coefficient of 0.343. The product development steps taken by the company can be explained, one of which is in creating different bakpia textures when processed by steaming and adding several new variants as bakpia fillings.
3. Product quality has a positive and significant impact on competitive advantage. Indicated by the t count value of 5.863 and a significance value of 0.000 and a regression coefficient of 0.343. This is also supported because the producer of steamed bakpia is still relatively a bakpia producer therefore there are still no other competitors for similar products.



4. Simultaneously, product innovation, product development and product quality have a positive and significant impact on competitive advantage. Shown by the F count value of 73.094 with a significance level of 0.000. It can be explained that at the same time the product innovation of Bakpia Kukus Tugu is still new and there are no other competitors in this segment, therefore the company has more flexibility in marketing its products, supported by placing it in several locations, both places of arrival and departure of tourists, not in crowded locations in the middle of the city, then it can reach potential consumers earlier.

#### **LIMITATION OF THE RESEARCH**

1. In this study, the variables studied were only on product innovation, product development, product quality and competitive advantage, for further research it can be developed to conduct research by developing other variables that influence the marketing of this steamed bakpia.
2. There are still wide segments for the marketing of steamed bakpia, so there are still opportunities to innovate steamed bakpia products. One of them is the product marketing model by placing some at the arrival and departure locations.
3. In product development, there are still wide opportunities, especially by paying attention to the positive response of the community towards steamed bakpia products.
4. Product quality can be maintained by making packaging that makes it easier for consumers to carry on trips, and packaging that is more resistant to maintaining durability by designing attractive packaging.
5. The competitive advantage that is owned because there are no business actors for similar products, so producers can have more opportunities to reach potential consumers and penetrate into more diverse markets by taking advantage of technological developments and the possibility of utilizing cooperative partners to further expand marketing reach.

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