

# **The Influence of Product Innovation and Market Orientation on the Competitive Advantages of Bengkuang Processed Products in Padang**

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**Abstract:** This study aims to analyze the influence of the dimensions of product innovation (product feature innovation, product packaging innovation, and product uniqueness innovation) and market orientation towards competitive advantage of Bengkuang processed products in Padang. The population in this study are UMKM in Padang who sell Bengkuang. There were 100 respondents taken by using purposive sampling technique. The data was analyzed by using path analysis through SPSS software.

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## **Introduction**

Current competitive environment in the business sector is quite tight and complex. Every company is required to always understand and comprehend what is happening in the market and what is the desire of consumers, and changes that exist to be able to compete with the competitors. The changes are related to how companies innovate to answer what consumers want, competition with other competitors, and changes in the market. The company hopes to be able to create products that are completely new or different from the previous ones or make products that are improvements from existing products by innovating. Consumers are not only limited to looking at the value or function of a product that is needed, consumers also pay attention to whether the product chosen has added value or advantages compared to other similar products in consuming a product. The development of a successful innovation will be the right strategy to maintain the product's position in the market, because most of the competing products appear static from year to year.

With the increasingly intense competition, companies must understand what and how to manage their various resources. An important key to winning competition lies in the company's ability to create competitive advantage. Narver and Slater (2014) state that competitive advantage can be achieved if the company is able to provide more value to customers than what is given by its competitors. Competitive advantage can come from various company activities such as in designing, producing, marketing, delivering, and supporting its products. Each of these activities must be directed to support the relative cost position of the company and create a basis for creating differentiation. In order to win in a competition, the current marketing of the product is not only based on the quality of the product, but also depends on the strategy adopted by the company. Related to that there are two strategies that are generally used by companies, namely market orientation (Narver and Slater, 2014) and innovation (Han et al., 2014).

Innovation can also be used as one of the strategies in achieving competitive advantage. The main objective of product innovation is to meet market demand so that product innovation is one that can be used as a competitive advantage for companies (Han et al., 2015). Customers generally want innovative products according to their wishes. For companies, its success in product innovation means the company is one step ahead compared to its competitors. This requires the intelligence of the company in recognizing the tastes of its customers so that the innovation it does ultimately is in accordance with the wishes of its customers. This product innovation must be truly planned and carried out carefully. Innovation is also one of the important variables in determining performance. Innovation is becoming increasingly important as a means of survival, not just growth in the face of environmental uncertainty and increasing business competition conditions. Companies with high innovation ability will be more successful in responding to the environment and developing new capabilities that lead to competitive advantage and superior performance.

Market orientation is a corporate culture that can lead to increased marketing performance. Market orientation has three components, namely customer orientation, competitor orientation, interfunctional coordination. Customer orientation is a sufficient understanding of current strengths and weaknesses as well as the capabilities and long-term strategies of existing competitors and potential competitors. The relationship between market orientation and company competitive advantage will vary in the situation and will accelerate market growth. Companies in marketing products must be market oriented because market demand can be achieved to the maximum.

The choice of Bengkulu processed business as the object to be examined in this study is because the Bengkulu processed product business is an industrial sector that is a mainstay for the local and export markets, especially after the increase in fuel oil (BBM) and basic electricity tariff (TDL). The still large market condition is a big opportunity for yam processed products in Padang City to further develop market penetration both for export and domestic needs. The city of Padang was chosen because this area is a business center for processed Bengkulu products in Sumatra, and the object of this research is a small scale Bengkulu processed products, with the reason that industries that are on a small scale are still quite limited in applying technology.

The high level of competition is not only felt by large companies but also medium-sized companies in Indonesia like Bengkulu processed products industry in Padang and Solok, West Sumatra. Changes that occur in the Bengkulu processed products industry include an increase in the level of industrial competition, the price of raw materials, and a decrease in exports abroad. The level of competition that is increasingly fierce in the Bengkulu processed products industry occurs due to reduced domestic market share, thus demanding companies in this industry to implement strategies that are relevant to company conditions and the changing environment. The company must keep trying to maintain its survival. The company's progress in the Bengkulu processed industry is entirely dependent on the company's ability to create and grow competitiveness that can adjust quickly to changes. The following table will present an overview of the condition of the Bengkulu processed products industry in Padang.

**Table 1**  
**Volume and Export Value of Processed Products in Padang**

| Year | Volume (Kg)  | Value          |
|------|--------------|----------------|
| 2016 | 517,899.500  | 2,023,782.14   |
| 2015 | 467,645.92   | 2,904,513.17   |
| 2014 | 942,379.60   | 4,059,625.81   |
| 2013 | 847,232.82   | 4,361,782 , 29 |
| 2012 | 1,950,771.77 | 4,921,302.79   |
| 2011 | 410,604.08   | 5,071,019.75   |

Source: Ministry of Industry and Trade of West Sumatra, 2017

Based on Table 1.1 above, it appears that the volume and export value of Bengkulu processed products in Padang are experiencing unstable conditions. In 2014, the volume of Bengkulu processed products reached 942,379.60 kg and decreased in 2015 to 467,645.92 kg. But in 2016 the volume increased again. According to a source from the Department of Industry and Trade of Padang, this unstable condition was affected by the economic crisis, rising fertilizer prices, and rising electricity tariffs. Even so, the existence of Bengkulu processed products in Padang must still be maintained, remembering that Bengkulu is an *icon of* Padang. Companies engaged in Bengkulu processed products must be encouraged so that they have a strong competitive advantage.

Seeing the great potential and opportunities of the Bengkulu processed products industry, especially in Padang, researchers interest to conduct further studies to analyze the effect of innovation from Bengkulu fruit and Market Orientation towards Competitive Advantage by conducting research entitled "**The Effect of Innovation and Market Orientation on Competitive Advantage in Bengkulu processed products in Padang**"

**Method**

The method used in this study is a quantitative method using survey methods. This research was conducted to determine the effect of the dimensions of product innovation on the competitive advantage of Bengkulu processed products in Padang where market orientation used as a mediating variable. The theoretical framework can be seen in Figure 1. This research is an explanatory research that is research that tests existing hypotheses. Data collection techniques with a survey by using a *self administered survey* in which each questionnaire is filled directly by the respondent. Researchers focus on consumers who have already purchased Bengkulu processed products in Padang. However, it is possible that there will be other areas that will become research locations if we find suitable respondents.

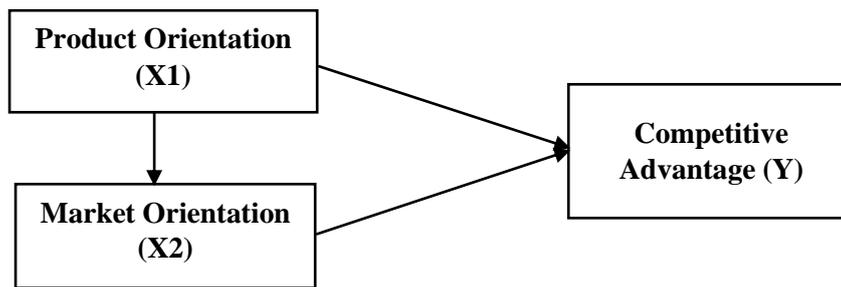


Figure 1 Theoretical Framework

Product innovation refers to the development of the product, the improvement of performance, and / or the new features to an existing product. It measures by using several indicators, such as; (1) the ability of brands to renew new products with new features, and (2) provide new alternatives to customers that differentiate them from competitors (Hanaysha, 2016), (3) the power of creativity, technical innovation, design changes, changes in distribution systems, and payment administration systems (Zainul, 2016). Product feature innovation is related to how consumers use information about product attributes in evaluating products. Product packaging innovation related to the design of packaging that describes the product or brand image. Then, the product uniqueness innovation is related to product differentiation for the development and enhancement of user's personal and social identity (Seng, 2016).

Product competitiveness is a product's ability to gain excellence in the market that is achieved by increasing the value of the product. This is evidenced by the expansion of market share and increasing prices of these products in the market which have a very positive impact on the position of the product profit margin. It measures by using several indicators, such as; (1) competitive price, (2) product quality, (3) competitive advantage (Hana, 2013).

All questionnaires are distributed to selected respondents who meet the criteria. Data analysis using path analysis through SPSS software.

### Results and Discussion

This section discussed the findings from the survey questionnaires that have been distributed to the respondents Padang. From 100 questionnaires distributed to various respondents, the demographical results were shown in Figure 1.

#### 1. Path Analysis

To test the hypothesis in this study, path analysis divided into 2 sub-structures.

##### a. First Substructure

The first sub-structure is carried out to analyze the effect of the *Product Innovation* variable ( $X_1$ ) on the *Market Orientation* variable ( $X_2$ ). Where the results of the analysis are seen in Table 10 Based on the path analysis results shown in Table 10, it is showed that the *exogenous* variable influences the *endogenous* variable. The path coefficient  $X_1$  ( $P_{X_2X_1}$ ) is 0.351. Thus, it can proceed to the analysis of the second sub-structure.

Table 10. Coefficient of Product Innovation Path to Market Orientation

| No               | Variable           | Path coefficient | t count | Sig.  |
|------------------|--------------------|------------------|---------|-------|
| 1                | Product Innovation | 0.351            | 4.837   | 0.000 |
| R Square = 0.193 |                    |                  |         |       |

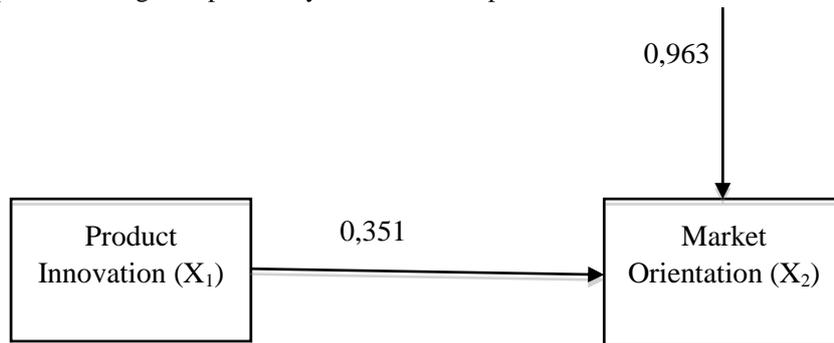
By recognizing the value of *R Square* in Table 10. It can be calculated coefficient values of other variables ( $P_{X_2e}$ ) with the formula:

$$P_{X_2e} = \sqrt{1 - R^2}$$

$$P_{X_2e} = \sqrt{1 - 0.193}$$

$$P_{X_2e} = 0.963$$

Thus, it can be presented diagrams path analysis to influence product innovations to market orientation variable.



**Figure 2**  
First Sub-Structure Path Diagram

**b. Second Substructure**

The second sub-structure is carried out to analyze the influence variables of product innovation(X1) and market orientation (X2) on competitive advantage (Y). Where the results of the analysis are seen in Table 11.

**Table 11. Coefficient of Product Innovation Path and Market Orientation on Competitive Advantages of Bengkuang Processed Products in Padang**

| No               | Variable           | Path coefficient | t count | Sig.  |
|------------------|--------------------|------------------|---------|-------|
| 1                | Product Innovation | 0.018            | 0.372   | 0.711 |
| 2                | Market Orientation | 0.385            | 6.297   | 0.000 |
| R Square = 0.348 |                    |                  |         |       |

Based on the results of the path analysis shown in the Table, it is known that one *exogenous* variable has no significant effect on *endogenous* variables, namely product innovation. This can be seen from the value of Sig. which is greater than 0.05. Only market orientation variables affect competitive advantage. Therefore, it is necessary to do *trimming* by issuing variables that have no significant effect on the competitive advantage of Bengkuang processed products. The results are *trimming* presented in Table 12 below:

**Table 12. Path Coefficient Market Orientation on Competitive Advantage Bengkuang Processed Products**

| No               | Variable           | Path coefficient | t count | Sig.  |
|------------------|--------------------|------------------|---------|-------|
| 1                | Market orientation | 0.395            | 7.222   | 0.000 |
| R Square = 0.589 |                    |                  |         |       |

Based on the data shown in Table 12, note the path coefficient  $X_3 (P_{YX_3})$  is 0.395. It can be concluded that the *exogenous* variable influences on the *endogenous* variable.

By knowing the value of *R Square* in Table 12, it can be calculated the value of the path coefficient of other variables ( $P_{Ye}$ ) with the formula:

$$P_{Ye} = \sqrt{1 - R^2}$$

$$P_{Ye} = \sqrt{1 - 0.589}$$

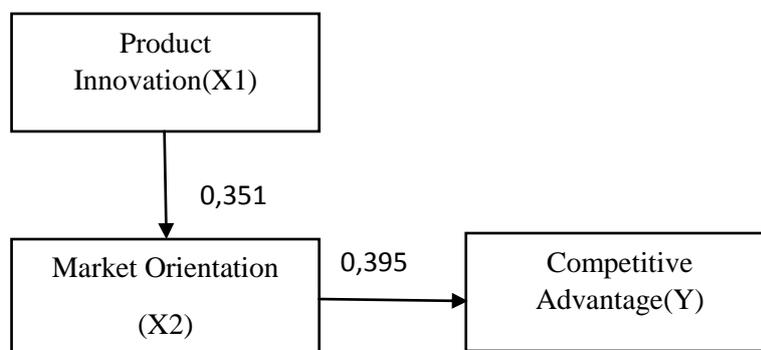
$$P_{Ye} = 0.653$$

Thus, it can be presented path analysis diagram for the influence of market orientation variables on competitive advantage of Bengkuang processed products.



**Figure 3.**  
 Second Sub-Structure Path Diagram

From the analysis above can be obtained a new path structure between *exogenous* variables and *endogenous* variables as follows:



**Figure 4.**

Final Structure of Relationships and Effects of *Exogenous* Variables on *Endogenous* Variables

### 1. The influence of product innovation on market orientation Bengkulu processed product in Padang

Based on the results of the first hypothesis test it is known that product innovation has no significant influence on the market orientation of Bengkulu processed products in Padang. Where the level is significantly greater than alpha ( $0.711 > 0.05$ ), it means that product innovation has no significant influence on the market orientation of Bengkulu processed products in Padang. These results underline that the innovation of Bengkulu processed products is not based on the market orientation. The results of this study are in line with research according to Mavondo et al (2005) he found that innovation does not have a significant influence on marketing performance. But the results of the study were stated not in line with research conducted by Gendut Sukarno (2009) that there was a positive and significant influence between product innovation on marketing performance. Product innovation is one of the most important factors in the process of improving the marketing performance of a product. Innovation is becoming increasingly important as a means of survival, not just growth in the face of environmental uncertainty and increasing business competition conditions. If you want to improve marketing performance, you must innovate products that are continuously adjusted to the desires of customers and internal functions and need to pay attention to what has been and will be done by competitors. Innovation is needed in order to create opportunities to offer customers higher value products or services, in addition to being able to create new markets or serve effectively. Innovations carried out in a focused and simple manner.

### 2. The influence of product innovation on competitive advantage of Bengkulu processed products in Padang

Based on the results of the second hypothesis test, it is known that product innovation has a significant positive effect on the competitive advantage of Bengkulu processed products in Padang. Where the significant level is smaller than alpha ( $0.004 < 0.05$ ), it means that product innovation has a significant positive effect on the competitive advantage of Bengkulu processed products in Padang. It can be interpreted that the most of the respondent gave an agreeable response in determining and considering the product innovation factors, namely technical innovation and the culture of innovation with its items namely shape design and price design. The

magnitude of the contribution of the product innovation variable shows that respondents really want product innovation so that they tend to rate product innovation as a very good category. Therefore, entrepreneurs feel the need to develop or expand their products to meet the needs of consumers while still paying attention to the tastes or desires of consumers, so products that have been developed and marketable can increase market share. Product innovation variable plays a very important role in increasing competitive advantage. Continuous innovation in the company is a basic requirement which in turn will be able to create competitive advantage. Therefore, it will determine a superior business performance. Innovation will be able to drive the market and increase competitive advantage. By innovating, the company will be more successful in responding to its environment and developing new capabilities where this can produce competitive advantages. So that innovation becomes increasingly important as a tool for survival, not only growth but also in competition. These results are consistent with previous research conducted by Gibran in 2012 which found that Product innovation influences competitive advantage. Companies that are able to design their products according to the wishes of customers will be able to survive in the midst of competition because their products are still in demand by customers. The results of this study also support the view of Bharadwaj et al (1993: 89) which suggests that the company's ability to continue to innovate its products will keep these products in accordance with the wants and needs of customers.

### **3. The influence of market orientation on competitive advantage of Bengkuang processed products in Padang**

Based on the results of the third hypothesis test, it is known that market orientation has a significant positive effect on the competitive advantage of Bengkuang processed products in Padang. Where the significant level is smaller than alpha ( $0,000 < 0.05$ ), it means that market orientation has a significant positive effect on the competitive advantage of Bengkuang processed products in Padang. These results underlie that the orientation of Bengkuang processed markets is based on competitive advantage. The company understands properly about customer satisfaction, consumer needs, always paying attention to consumer complaints on the goods bought, monitors the actions of competitors and responds to changes made by competitors. The customer orientation aspect is an element of the consumer which is considered a control function in holding marketing roles and responsibilities in a market orientation company, it is important to pay attention and is expected to continue to encourage businesses to increase expectations of customers. However, lack of service has not been able to increase sales targets as expected. Besides paying attention to customers, companies also pay great attention to their competitors, because this will support business vigilance. This implies that they carefully pay attention to competition, especially regarding product innovation in order to improve market position and competitive position. This the research is in line with Ahmad Fian Abdul Fatah's previous research in 2012 proving that market orientation has a positive influence on competitive advantage. Companies that implement market orientation have advantages in terms of customer knowledge and these advantages can be used as a source for creating products that are in accordance with customer wants and needs. In addition, these results also support the view of Bharadwaj et al (1993: 92) which states that a corporate culture that emphasizes the importance of companies to pay attention to the market (market oriented) will lead to strengthening the company's competitive advantage.

### **4. The influence of product innovation and market orientation together on the competitive advantage of Bengkuang processed products in Padang.**

Based on the results of the fourth hypothesis test, it is known that product innovation and market orientation have a significant positive effect on the competitive advantage of Bengkuang processed products in Padang. Where the significant level is smaller than alpha ( $0,000 < 0.05$ ), it means that product innovation and market orientation have a significant positive effect on the competitive advantage of Bengkuang processed products in Padang. this illustrates that with a good market orientation effort and various product innovations it will create high marketing performance as well. If there is a decrease in one of these factors will directly affect competitive advantage. The results showed that market orientation and product innovation are factors that can affect the achievement of competitive advantage in Bengkuang processed products. Competitive advantage will be achieved through market orientation. Through market orientation the company will obtain actual, accurate and action-oriented market information. Innovation will be able to drive the market and improve marketing performance. By innovating, the company will be more successful in responding to its environment and developing new capabilities where this can produce competitive advantages. So that innovation becomes increasingly important as one of the tools for survival, not only growth but also in competition. to get superior value, the company must really understand what then becomes the customer's needs and desires, as well as what innovations or changes must be made so that consumers prefer products that are created over competing products, if the company is able to innovate products and is able to direct its products are in accordance with the

wants and needs of consumers and are liked by consumers, consumers will automatically choose these products and will have an impact on increasing sales volume which has an impact on the competitive advantage of products. This study is in accordance with previous research conducted by Gibran in 2012 entitled the effect of Market Orientation and Product Innovation on Competitive Advantage in the Summit Factory outlets of Bandung which states that there is a simultaneous and partial influence between market orientation and Product Innovation on Competitive Advantage . Porter (1990: 3) states that competitive advantage is the heart of marketing performance to face competition. Competitive advantage is defined as a benefit strategy of companies that collaborate to create a more effective competitive advantage that continues so that companies can dominate both the old market and the new market.

### **Conclusions**

Based on research results, product innovation does not affect market orientation in Bengkulu processed products in Padang. Conversely, market orientation has an impact on competitive advantage in Bengkulu processed products in Padang. Bengkulu processed products are very unique as souvenirs of Padang. Bengkulu fruit is an industrial sector that is a mainstay for local and export markets. Product innovation affects competitive advantage in Bengkulu processed products in Padang. Rapid changes of customer preferences, technology, and competition of Bengkulu processed product companies greatly affect competitive advantage. This is related to customer preferences for Bengkulu processed products.

The scope of the respondents became the limitation of the study. The majority of respondents are from the millennial generation. So the results only represent millennial behavior to buy Bengkulu Processed products in Padang. Therefore, for further research, it can be deepened how the competitive advantage of Bengkulu processed product companies in Padang which is a mainstay for local and export markets, so that it can be explored the cause of the insignificant influence of product innovation on competitive advantage Bengkulu processed products. Further research can also be done by limiting middle and upper segment respondents, because the price of Bengkulu processed products tends to be expensive, so that the more suitable respondents are those who have higher incomes.

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