

ACHIEVING SUSTAINABLE COMPETITIVE ADVANTAGE THROUGH PRODUCT INNOVATION AND MARKET DRIVING

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ABSTRACT

The purpose of this study is to analyze and provide empirical evidence on 1) How the product innovation influences sustainable competitive advantage, 2) How the product innovation influences the market driving, and 3) How the market driving influences the sustainable competitive advantage. This study is carried out through SEM (Structural Equation Modeling) test with Smart PLS Program. The data obtained is primary and secondary data. The data collection technique is done by distributing a questionnaire to the respondent and documentation or records of the sources of the required data. Questionnaires are distributed to the respondents. Answers to the questionnaires are included in the list of questions by using a scale value interval of 1-5 to obtain respondents' opinions regarding the questions in the questionnaire. Furthermore, respondents are also given the opportunity to provide feedback or comments. The analysis technique used in this study is by using the concept of Structural Equation Model (SEM) with Partial Least Square (PLS) program. The findings assert that

- 1. Product innovation (PI) positively influences sustainable competitive advantage (SCA). It means that the better the PI is, the better the sustainable competitive advantage will be*
- 2. Product innovation (PI) positively influences Market Driving (MD). It means that the better the PI is, the better the MD will be.*
- 3. Market driving (MD) positively influences sustainable competitive advantage (SCA). It means that the better the MD is, the better the sustainable competitive advantage will be.*

Keywords: *Product Innovation, Market Driving, Sustainable Competitive Advantage.*

INTRODUCTION

Competition in the business world is unavoidable, for that, every effort is required to always know, understand what is happening in the market, what customer wants; and understand the changes in the business environment so as to compete with others. For that reason, an attempt to understand what and how to manage a variety of resources owned to win the competition and create competitive advantage must always be created.

Preparation of new products in the face of competition from rivals is one way to win competition through product innovation. Innovation means observing consumers to find and satisfy customers by providing new products, creating innovation in order to have a strategic position in the market and withstand attacks from competitors with the main objective to meet the market demand. As a result, it can be used as a competitive advantage for a business. Therefore, companies are required to provide new thoughts, ideas and innovative products.

Supranoto (2009) in his study shows that some indicators have been used in the study of competitive advantage, namely the resources, transformation and output competence. This becomes value created by a business to able to continuously be used by customers in form of sustainable competitive advantage to meet customers' demands and complaints of product quality, customer needs, procurement of new markets and the existence of continuous product innovation.

Rabbit meat is a sector having great potential to be bred as providers of meat, because it has the capability of growth and rapid development. It is expected to meet the needs of the Indonesian population about proteins increasing every year.

Driving Market competition could encourage businesses of rabbit meat to pursue high innovation in order to achieve a sustainable competitive advantage. Sustainable competitive advantage is the value created by the company for its customers, continuously. Sustainable competitive advantage can be seen from the

accuracy of the company in the market to provide products in response to consumer demands and complaints of product quality, customer needs, procurement of new markets and product innovation.

Rabbit meat market is limited to the sale of *sate* (roasted meat) and *curry*. The less popular of rabbit meat causes low levels of cuts in the supply of rabbit meat in large quantities.

For years, there is a decline in rabbit outlets establishment. In 2006, there are only 3 outlets. Furthermore, in 2007, 2008, 2011 and 2012, there is only 1 to 2 stalls existing. In addition, rabbit cultivation is mostly done by breeder/community. So that, it creates a potential competitive advantages to create product market (*Market Driving*).

LITERATURE REVIEW

Product Innovations

Cornford (2006) declaring that definition according to us countil on competitiveness is the transformation of knowledge be process, products and services new. Innovation can also defined as application new ideas into products, process or other aspects in an activity company. Innovation focused against process for commercialize idea into something we consider. Innovation splits into five different types namely new products, method of new production, supply source new eksplorasi new markets and new ways to manage business.

Innovation is a process that complete for development and over-privatization new products, included between other products and services, method or provisions of production method distribution or delivery service, business model, marketing and form company (box and woodall, 2012). Innovation is a new idea applied by a company for initiated or fix a product or process and services meberikan profit to individual, group, company and community (Anggraeny, 2013).

Liao et al (2009) defines innovation in different ways that most of the focus on improving the technology or development of products. Capability of innovation as the company performance through different types of innovation to

achieve an increase in overall in the innovation. Innovation must use the production and marketing technology to produce new product, service to consumers and attributes new products to consumers. Daniel and raquel (2008) said that innovation was a new idea of recombination old ideas unique considered new by individuals engaged and can be developed internally. Hsiung fang et al (2011) suggest that companies innovation is to involve the generation or adopt an idea or new behavior so it can become a new product or service, the production of new technology any surgical procedure or a new strategy or strategy new management.

Innovations focused on two categories; first category is set as innovation, technology products covering the creation of a new product or product development that has a significant difference karekeristik with a product before. Characteristic of the difference can occur as a result of the application of new technologies, pengetahuan new or new material. The second category is technological innovation process, that is the result of the application of a method of new production or outcome of something significant development including the methods by submission of the product (Aulawi. 2013).

Product innovations is set as innovation that is used in a whole operations of the firm by which a new product is created and marketed, including innovation in all the process to do with it. Innovation the product is aimed at companies, to maintain the sustenance of life because the product that has existed susceptible to change the needs of the consumers, and appetites technology, the life cycle of the product which is shorter, and heightened competition domestic and abroad. The research widhianti (2013) declaring that innovation on product is very important and should be in the effort to maintain market share see tier competition among many efforts have make props this educative.

Zimmerer (2009) declaring that creativity is thinking about novelty and innovation is doing things new. Is the trait of being always find creative new ways and innovative is a creative solutions to. Having four cirri, innovation namely: (1) having special meaning a quirk / innovation having cirri peculiar in meaning idea, the program order, system including the possible expected results. (2), or element

having cirri of novelty in a sense of innovation must having characteristics as a work and fruit having thought orsinalitas levels and novelty. (3) the innovation programme, implemented through planned program in the sense that an innovation done through a process of unhurried, but keinovasian prepared carefully with clear program and planned beforehand. (4) innovation, coined having a purpose programs conducted innovation must have direction and strategy to accomplish a purpose.

Market Driving

Market Driving is a company's ability to create, move, and educate the market through a product. However, in terms of the product, not the means should result in a new category. Bring up a new passion in the market albeit in a category that is while the market can be regarded as driving (Morris, 2008).

Carpenters and Iacobucci et al, (2001) market driving approach implies an influence on the structure or behavior of the market and the market with the aim of improving the competitive position. Further driving the market can also be done by three approaches, namely deconstruction, construction, and modification of functional. Deconstruction approach is done by eliminating players on the market. Conversely construction approach seeks to build or modify new players on the market. Approach to functional modifications include changes in the function shown in the existing market players. Neither approach is driving the market and driving the market, equally focused on consumers, competitors, and general market conditions.

Morris (2008) Market driving is a company's ability to create, move, and educate the market through a product. However, in terms of the product, not the means should result in a new category. However, to be able to create a market.

The research carrillat (2004) declaring that market driving more capable to gain the superiority compete sustainable by changing structure or composition market or behavior performance. Besides control market (market driving) permitting a company not can have a chance to exploit competition.

RESEARCH METHODS

Population is the whole unit of characteristic or results of measurement becoming the object of research and located in a region that meet certain requirements related to the research problem (Akdon and Riduwan, 2007). The population of this study is rabbit meat merchants with a total of 45 people in the district of Ngablak, Magelang.

The sample is part of a population that has characteristics or particular circumstances to be studied (Akdon and Riduwan, 2007). The sampling technique used in this study is a census technique.

Techniques of data collection are done by distributing questionnaire to the respondent and made documentation or records of the sources of the required data. Questionnaires are distributed to the respondents proposed. Answers to the questionnaires are included in the list of questions by using a scale value interval of 1-5 to obtain respondents' opinions regarding the questions in the questionnaire. Furthermore, respondents are also given the opportunity to provide feedback or comments.

The analysis technique used in this study is by using the concept of *Structural Equation Model* (SEM) with *Partial Least Square* (PLS) program.

FINDINGS

Outer Model Measurement

Test of Validity

Validity test is used to measure whether a questionnaire is valid or not. A questionnaire said to be valid if it is able to reveal something that will be measured by the questionnaire (Ghozali, 2008). Test of validity by *Smart PLS* program is performed by using *convergent validity* measure.

The variables used in this study are the independent variable, namely product innovation; and the dependent variable that is the *market driving* and sustainable competitive advantage. The test of validity of each variable is performed with evaluation of outer model measurement by

using *convergent validity* (Magnitude of loading factor for each variable). *Convergent validity* of *measurement* model of reflexive factors can be identified through correlation of each score of indicators and variables (Ghozali, 2008).

Test of Reliability

Reliability testing is done by looking at the value of *the reliability* of the *composite* indicator that measures a variable block. Reliability measurement uses two ways:

a. Composite Reliability

The results of *composite reliability* is said to be reliable if the *composite reliability* values between variables and indicators give good value above 0.70 (Ghozali, 2008). The results of *composite reliability* between the indicator and variables can be seen in Table below.

Table. Value of *Composite Reliability*

Variables	<i>Composite Reliability</i>
Product Innovation (PI)	0.938
<i>Market Driving</i> (MD)	0.946
Sustainable Competitive Advantage (SCA)	0.926

The table shows that the results of each *composite reliability* of all variables are above 0.7. According to Chin (1988), an indicator is said to have good reliability if the value is above 0.70, and can be sustained and accepted in the value of 0.50 to 0.60. Here, it seems that a *composite reliability* value of product innovation (PI) is 0.938; *market driving* (MD) is 0.946; and sustainable competitive advantage (KBB) is 0.946. These values refer to the opinion of Chin (1988), the results of *composite reliability* of each variable can either be used in the analysis process to show the correlation of each variable because the results obtained have reached the value of > 0.70 . It means, the variables have good reliability and value and can be used for the next study processes.

b. *Average variance extracted (AVE)*

To assess *discriminant validity* is by comparing the square root of the *Average Variance Extracted* (\sqrt{AVE}) for each variable with the correlation of one variable to others in the model. This model has adequate *discriminant validity* if the root of AVE for each variable is greater than the correlation among variables in the model (Ghozali, 2006). Results of *average variance extracted* (AVE) variables can be seen in Table below.

Table. *Latent Variable Correlation*

Variables	MD	PI	SCA
Product Innovation (PI)	0.445	1.000	
Market Driving (MD)	1.000		
Sustainable Competitive Advantage (KBB)	0.579	0.572	1.000

Table. *Average Variance Extracted (AVE) Value*

Variables	AVE	ROOTS AVE
Product Innovations (PI)	0.835	0.914
Market Driving (MD)	0.853	0.924
Sustainable Competitive Advantage (SCA)	0.806	0.898

Source: Primary data processed (2014)

The table shows that the AVE roots value of sustainable competitive advantage variable is 0.898 ($\sqrt{0.806}$), higher than the correlation of sustainable competitive advantage with product innovation (PI) variable which is only 0.572. Moreover, the AVE root of *market driving* variables (MD) is 0.924 ($\sqrt{0.853}$), higher than the correlation of *market driving* with sustainable competitive advantage of 0.579. The AVE root of product innovations is 0.914 ($\sqrt{0.835}$) and also higher than the correlation of product innovation and *market driving*. Therefore, all the variables in the model meet the criteria of *discriminant validity* and can be used for further stage of this study.

Test on Structural Model (Inner Model)

Test on inner model or structural model is performed to see the correlation among variables, significance and R square-value of the model of research. Research model with PLS is started by determining R-square value of each latent dependent variable. The change of R-square variable can be used to determine the influence of latent independent variable toward the dependent ones. The following table is the R-square estimated value by using *PLS* Model.

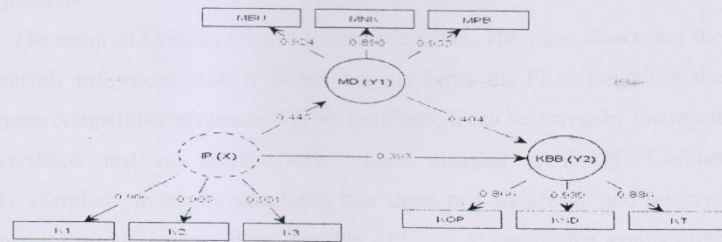
Table. R-square

Variables	R-square
Product Innovation (PI)	
<i>Market Driving</i> (MD)	0.198
Sustainable Competitive Advantage (SCA)	0.459

Source: Primary data processed (2014)

The table shows that R-square value of *market driving* variable is 0.198 and SCA is 0.459. The higher the value of r-square is, the stronger the influence of independent variables to the dependent ones. As a result, it will determine a good structural equation model. *Market driving* variable has R-square value of 0.198. It means that 19.8% of *market driving* variance can be influenced by PI variable while the rest 80.2% is determined by other variables outside research model. Moreover, SCA variable has R-square value of 0.459. It means that 45.9% of SCA variance is influenced by PI variable while the rest 54.1% is determined by other variables outside research model.

Inner models describe the correlation of latent variables based on *substantive theory*. The following is bootstrapping output result which displays charts of the correlation among variables in the form of product innovation: (PI), *the market driving* (MD) and sustainable competitive advantage (SCA):



Hypothesis Testing

To determine whether a hypothesis is accepted or not is by comparing the T-test value with T-tables. The estimated parametric significance gives valuable information about the correlation among variables in this study. The criteria either to accept or reject hypotheses proposed are ± 1.96 . If T-statistic is $>T$ -tabel, then, the hypothesis (H1) is accepted or, in other words, H_0 is rejected. Result of estimated output value can be seen in table below.

Table. The correlation among variables

Hypotheses	Variables	Original Sample Estimate	T - Statistic	T-table	Criteria
H 1	PI -> SCA	0.393	3.485	2.014	Accepted
H 2	PI -> MD	0.445	3.588	2.014	Accepted
H 3	MD -> SCA	0.404	2.343	2.014	Accepted

Source: Primary data processed (2014)

The table shows that the influence of PI variable to MD is positive significant (0.445) with significant level of $\alpha=0.05$ and statistic value of 3.588 ($3.588 > 2.014$ or 1.96). PI variable has a positive influence to SCA (0.393) and significant at $\alpha=0.05$ with statistical value of 3.485 ($3.485 > 2.014$ atau 1.96). Moreover, the influence of *market driving* (MD) toward SCA is positive at (0.404) and significant at $\alpha=0.05$ with a statistic value of 2.343 ($2.343 > 2.014$ or 1.96). The result of data analysis can be explained in the test of hypotheses as the following:

1st Hypothesis

The result of Original Sample Estimate is 0.393. The value shows that the PI positively influences SCA. It means that the better the PI is, the better the sustainable competitive advantage will be. Similarly, it can be proven by the result of hypothesis test in which T-test values obtained is (3,485) > T-tables (2,014). Therefore, it can be concluded that there is a significant and positive influence of product innovation variable (PI) to a sustainable competitive advantage (SCA).

2nd Hypothesis

The result of Original Sample Estimate is 0.445 and the value of the coefficient is positive. It means that the better the product innovation (PI) is, the better the ability of *market driving (MD)* will be. Test of the hypothesis can be proven by the result of T-test value of (3.588) which is > T-tables (2.014). Therefore, it can be concluded that there is a significant and positive influence of product innovations toward the *market driving (MD)*.

3rd Hypothesis

The table shows *market driving (MD)* positively and significantly influences sustainable competitive advantage (SCA) with the T-statistic value of 2.343, which are greater than 2.014 of the T-table. The value *Original Sample Estimate* is positive and equal to 0.404. Therefore, it can be concluded that there is a significant and positive influence of *market driving (MD)* toward a sustainable competitive advantage (SCA).

DISCUSSION

The influence of Product Innovation toward Sustainable Competitive Advantage

The finding of the study proves that the Product Innovation (PI) positively influence sustainable competitive advantage (SCA). It means that the better the PI is, the better the sustainable competitive advantage will be and the hypothesis proposed is accepted. The finding asserts that the product innovation variable with a unique indicator of the product which explains that the merchant offers the

unique of product in the form of benefits for consumers who consume rabbit meat such as low cholesterol, increase female fertility and be able to cure asthma. This is supported by the statement of Yurmiati (2013), in terms of the health benefits, rabbit meat has many levels of protein that is similar to chicken but have low cholesterol levels, making it suitable for people with high blood, heart and cholesterol level.

The product innovation variable with quality indicators shows that rabbit meat offered by merchants is in a form of *sate* (roasted meat), curry, *tongseng* processed by using natural herbs ingredients capable of providing enough nutrition and high protein value. Furthermore, indicators of multi-function product process that is able to provide business opportunities in the face of competitors, especially with the tender texture of the meat, makes processing stage become easier. In addition, processed rabbit meat, in the form of *sate* with tempeh seasoning mixture contained peanut sauce on skewers, has high economic value even the price offered is quite more affordable. Furthermore, processed rabbit meats in a form of *sate* (roasted meat) are able to increase sales rate. In conclusion, the innovation of quality, unique and multi-functional products will be able to achieve a sustainable competitive advantage.

The finding support the study conducted by Kusumawati (2010) which shows that the higher the PI is, the better the SCA will become. It means that the PI highly influences the SCA of a company/organization/business. Product Innovation is a way to increase success value of a business or company in order to achieve sustainable competitive advantages in the globalization era.

The finding also support the study conducted by Indriani (2006) on product innovation that can increase the value as a key component of the success to make a company has a competitive advantage through superior products and uniqueness offered.

Based on the findings, it can be concluded that, the better the product innovations offered by a rabbit meat business in the district of Ngablak is, the better the sustainable competitive advantage in the face of competitors will be. So

it can be concluded that there is a significant and positive influence of the variable product innovation toward sustainable competitive advantage.

The Influence of Product Innovation toward Market Driving

The finding shows that product innovation (PI) positively influences *the market driving* (MD). It means that the better the product innovation (PI) is, the better the ability of *market driving* (MD) will be. Therefore, the hypothesis 2nd hypothesis is accepted. The finding also show that the *market driving* variable with indicator of traders ability to create a unique business in the form of processed rabbit meat with benefits and high nutritional value for the consumer is able to set up a merchant to make a sale in two different places in the past year by offering superior value of the rabbit meat product. In addition, the ability to create customer value in terms of providing services to visitors by approaching customers and asking seating with friendly order is an effective approach as well. This has been done with consumer expectations at home visit at the food stalls. Viewed from the side of the market, the productivity of rabbit meat has good business potential because of the very high death rate of rabbits at the productive age makes the rabbit meat traders try to manage to make a new business opportunity.

In addition, to create a new business, it is necessary to pay attention to the quality of the product because it closely related to consumer satisfaction. Traders are required to constantly innovate and be adjusted to the desires of consumers so as to achieve *market driving*.

Based on the findings, it can be concluded that the better the product innovation performed by rabbit meat traders in the district of Ngablak is, the better the ability to create new markets (*market driving*) in the wide open is. Besides that, in addressing the conditions of competitive competition, we need a spirit to continually develop new products in order to enter new markets.

The finding supports the study by Indriani (2006). In her study, she outlines that the product innovation positively influences *driving market* because Product innovation is key to the success of a business. It makes

the market leader offers superior products through differentiation of products to satisfy customers.

The influence of *Market Driving* toward Sustainable Competitive Advantage

The finding shows that *market driving* (MD) positively influence sustainable competitive advantage (SCA). The finding shows that the competence of the resources owned by traders in terms of providing the spice of processed meat so as to give a different flavor to other traders can attract customers' interest to buy the product. Competence output in terms of products produced is in the form of *sate (roasted meat)*, *curry* and *tongseng*. In conclusion, the better the ability of *driving market* in District Ngablak is, the better the sustainable competitive advantage in the face of competitors will be. Cheng (2013) says that the differentiation strategy is developed by taking into account to the characteristics of quality products, technology will and innovation, reliability, brand image, reputation of company, durability, and service to customers which are different from competitors to imitate.

The finding supports the finding by Carrillat (2004) which states that the better *Market Driving* is able to gain a sustainable competitive advantage by changing the structure or composition or behavior of market players. In addition, the *Market Driving* allows a company to not have opportunity to exploit its competitors.

CLOSING

Conclusion

This study tries to examine the influence of Product Innovation toward market driving and sustainable competitive advantage by enhancing the previous literary studies. From the test result of SEM model by using smart PLS model, it can be concluded that,

1. Product innovation (PI) positively influences sustainable competitive advantage (SCA). It means that the better the PI is, the better the sustainable competitive advantage will be.

2. Product innovation (PI) positively influences *Market Driving (MD)*. It means that the better the PI is, the better the MD will be.
3. *Market driving (MD)* positively influences sustainable competitive advantage (SCA). It means that the better the MD is, the better the sustainable competitive advantage will be.

Limitations

The findings of this study are limited to rabbit meat traders. To answer all the problems related to the low of R-square value in the correlation of variables. Some of these limitations are:

1. Test results by using *Partial Least Square (PLS)* shows that the R-square value is still very low average of 32.85%. It means that there are other variables beyond the study affecting it.
2. This study is only conducted within the scope of the District of Ngablak, Magelang. So that, the findings both samples and population cannot be generalized to the broader region of the province.

Future Research Agenda

1. It needs to include other variables besides product innovation (PI) and *market driving (MD)* that influence sustainable competitive advantage (SCA) because there are 67.15% of those variables that have not been studied in the form of variable promotion.
2. It needs a more extensive study sites for future research related to the study to Achieve Sustainable Competitive Advantage through Product Innovation and Market Driving.

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