

Effect of Market Orientation, Organization Creativity and Management Knowledge of Innovation and Impact on Competitive Advantages

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Abstract- *Manufacturing industry sector as one of an important sector in national economic development. Manufacturing industry sector is one of the supporters of the national economy because this sector contributes significantly to the economic growth of Indonesia. This study aims to analyze the influence of market orientation, organizational creativity and management knowledge on innovation and its impact on competitive advantage in manufacturing industry in Indonesia. Populations and samples conducted in manufacturing industries located in Bekasi with a total sample of 186 manufacturing industries. This research is explanatory with sampling purposive sampling technique and analysis used quantitative analysis by using AMOS 22. The result of research indicates that market orientation, organizational creativity, and management knowledge influence to competitive advantage through innovation.*

Keywords :*Market Orientation; Organizational Creativity; Management Knowledge; Innovation and Competitive Advantage*

1. INTRODUCTION

Manufacturing industry sector as one of an important sector in national economic development. Manufacturing industry sector is one of the supporters of the national economy because this sector contributes significantly to the economic growth of Indonesia. The manufacturing industry is an economic activity which in its activities transforms a basic good mechanically, chemically or by hand so that it becomes finished or semi-finished goods and/or goods of less value into higher value goods.

In 1990-1996, the development of Indonesia's manufacturing industry grew rapidly and at that time Indonesia experienced significant growth. Indonesia is currently in transition from an agrarian-based economy to a semi-industrial economy and seeks to increase national economic growth. The pattern of subsistence economies relying on the primary sector is slowly shifting into an economy sustained by the manufacturing sector. Manufacturing industry sector is a fairly stable sector and became one of the support of the country's economy amid the uncertainty of the world economy with a positive growth rate.

Based on data from the Ministry of Industry Year 2015 shows that the industrial sector, especially the non-oil manufacturing sector experienced significant growth, exceeded the growth of Indonesia's GDP in the first quarter of 2015. The growth of industrial output and the creation of added value in output with the mastery of high

manufacturing technology the main factor for the improvement of a country's economic growth. The manufacturing industry also plays an important role in international trade because with the improvement of the quality and quantity of output produced it can increase the industrial competitiveness in the global market. Another role of the manufacturing industry is the absorption of manpower in large numbers which will lower the unemployment rate.

The external challenge that must be faced is the agreement of the ASEAN Economic Community (MEA) implemented since the end of 2015. Consequently, the industry in Indonesia is required to be able to compete globally because the products from abroad will flood the local market share. In addition, the global economic slowdown followed by slackening world demand will affect national export and import performance, so that the manufacturing industry will suffer from lethargy and cannot contribute effectively to the national economy. Such as the development of manufacturing industry located in Bekasi area which has added value from the manufacturing sub-sector as can be seen from the table as follows:

Table 1. Added Value of Industry Sector by Subsector

No	Industry Group	Value Added
1	Coal and oil refineries	63.024,50
2	Textiles and apparel	2.029.392,16
3	Food and Drink	2.031.495,68
4	Tobacco Processing	961.010,71
5	Leather, Leather goods, and footwear	1.427.819,95
6	Wood, Wooden goods, cork, rattan, wicker from bamboo	194.551,57
7	Paper, articles of paper, printing, and reproduction of recording media	1.723.537,35
8	Chemicals, Pharmaceuticals, and Medicines from traditional materials	6.757.443,29
9	Rubber, Material of rubber and plastic	5.803.716,52
10	Non-metallic minerals	984.503,82
11	Metal base	10.729.443,29
12	Articles of metal, computers and electronic goods	83.362.574,15
13	Machinery and supplies	18.027.349,70
14	Transport tool	26.746.703,50
15	Furniture	93.778,85
16	Other processing, reparation services, and installation of machinery and equipment	984.503,82
Total Processing Industry		161.947.397,04

Source: Bekasi BPS Data in Figures, 2016

Overall, the problem of low absorption of labor in the manufacturing sector is due to low productivity. The low quality of workers leads to lower productivity and competitiveness. Viewed in depth, the average level of education workers in Indonesia is still low, about 63% is dominated by high school graduates and below. In addition, the discrepancy between the needs of the manufacturing industry to the labor force with education and training causes companies/industries to find it difficult to obtain qualified workers. In the field data, only 5% of the workforce is trained and only about 1.6% have competency certificates (Bureau of State Budget, 2015). This condition contributes to the low quality of the workforce, resulting in lower productivity compared to the productivity of ASEAN countries, for all activities in the economic sector.

Furthermore, the quality of Indonesia's manufacturing industry production is still inferior when compared with the production of other countries. This causes the low selling value and competitiveness of production. In addition, regarding government regulations. Business actors in the manufacturing industry require legislation that protects legally and provides assurance that entrepreneurs feel secure in running their business. These regulations include tax systems, user charges, licensing, and so on. In addition, to overcome the problems of investment disputes, the government needs to formulate rules on the settlement of investment disputes between the government and investors to strengthen the legal certainty in trying in Indonesia. In addition to labor, capital production factors are also a challenge in the development of manufacturing industries in Indonesia. In addition to capital in the form of money or investment, capital can also be a supporting investment in the industry.

Infrastructure Indonesia in supporting all aspects of development is still in a condition that needs special attention.

Access to the regions is still a problem in many provinces or districts in Indonesia. Infrastructure is also a major capital in the advancement of the manufacturing industry, especially in the regions. However, the infrastructure requires a lot of capital, while it is still very dependent on limited government funding so it has not met the expectations of the community both in terms of quantity and quality of service. Future manufacturing industries are highly competitive industries, based not only on the size of Indonesia's potential (comparative advantage), such as the span of the region, the large number of people and the availability of natural resources, but also by the ability or creativity and skill as well as the professionalism of Indonesian human resources (competitive advantage).

2. LITERATURE REVIEW

2.1 Competitive Advantages

Competitive advantage is the company's way to get a strong position where the company can be superior to competitors. According to Porter (1990: 31), competitive advantage comes from many kinds of activities undertaken by the company in designing, manufacturing, marketing, distributing and supporting its products. According to Kotler (2010)[7], competitive advantage is the advantage over competitors earned by delivering greater customer value, through cheaper or more useful prices in supply in accordance with higher pricing. Porter (1990: 3) explains that competitive advantage is the heart of business performance to face competition. The indicators used to measure competitive advantage are

product uniqueness, product quality, and competitive prices. The uniqueness of the product is the uniqueness of the company's product that combines artistic value with customer's taste. Product quality is the design quality of the company's products. While the competitive price is the ability of the company to adjust the price of its products with the general price in the market.

2.2 Innovation

Strata (1989)[15] states that the term innovation relates to technology that serves to open the company's insight into a new product and improve the design and manufacture of a product owned by the company. Conventionally, the term innovation can be interpreted as a breakthrough associated with new products. But along with the development that occurred, understanding of innovation also includes the application of new ideas or processes. Innovation is also seen as a corporate mechanism in adapting to its dynamic environment. Changes in the business environment have forced companies to create new thoughts, new ideas, and offer innovative products. Thus innovation increasingly has significance not only as a tool to maintain the survival of the company but also to excel in the competition. Gatignon and Xuereb (1997: 71)[6] suggest 3 (three) innovation characteristics of product superiority, product cost, and product credibility. Product innovations can fail simply because the reasons do not offer a unique design or a misconception of the wants and needs of the customer. Product innovation should be able to provide added value compared to similar products (product excellence) so as to make the company has an advantage over its competitors. Luke and Ferrell (2000: 240)[8] explain the existence of several indicators of product innovation, namely:

1. Line extensions (line extensions) ie products produced by the company is not really new but relatively new to a market.
2. New products (me too-product) is a new product for the company but not new to the market.
3. The new-to-the-world product is a new product for both the company and the market.

Some of the indicators used to assess product innovation are product innovation, process innovation, marketing innovation and organizational innovation. The explanation of each indicator is as follows:

- a. Product innovation. Product innovation is the introduction of new goods or services with the characteristics it uses.
- b. Process innovation. Process innovation is a process of implementing innovations or new methods.
- c. Marketing innovation. Marketing innovation is the implementation of new marketing methods that involve changes in product promotion.
- d. Organizational innovation. Organizational innovation is the implementation of a new method of organization in the company's business practices, workplace organization or external relationships.

2.3 Market Orientation

Demand and needs and market desires are increasingly diverse, requiring business actors to continually innovate on products created. According to Naver and Slater (1990: 21) market orientation is the most effective and efficient in the organization to produce the behaviors needed to create superior value for buyers and superior performance for the company. Market orientation is a business culture that effectively and efficiently creates employee behavior in such a way as to support in creating superior value for customers (Tjiptono, 2008: 53)[18]. According to Naver and Slater (1990) states that to be a single-dimensional construct in the market orientation consists of customer orientation, competitor orientation and coordination between functions. As for the explanation of the three indicators are as follows:

- a. Customer orientation can be interpreted as an adequate understanding of the target buyers, so to get super value can be given continuously.
- b. The competitor's orientation can be interpreted as an understanding of short-term strengths and shortcomings and long-term capabilities and strategies of competitors.
- c. Coordination between functions can mean that the coordinated utilization of all resources in the company to create a super value for the target buyers.

2.4 Organizational Creativity

Creativity is the ability to imagine and generate new ideas by combining, transforming and applying existing ideas to uncharted ways. Creative ideas are processed through several stages to produce a product or service or business model called innovation (Zimmerer 1993: 57). The indicator of organizational creativity is organizational climate, leadership and organizational culture. The explanation of each of these indicators are:

- a. Organizational climate is an illustration that part of creativity management is to create the right climate so that everyone can share and build their ideas with others and provide support. This will eliminate the increased pressure and potential unproductive potential within the organization. In the creative climate, there are a number of positive and negative activities that affect individual creativity, process or operational creativity and results or products. A good manager is understanding how the creative climate influences decisions so that they can develop and influence performance within the organization.
- b. Leadership, that the participative-democratic leadership style is supporting creativity. Amabile (1996)[1] states that leaders with leadership styles are the fastest path to encouraging creativity and encouraging new initiatives.
- c. Organizational culture is an informal, unwritten and specific code of conduct that regulates behavioral attitudes, relationships, and organizational styles. In small companies, culture plays an important role in gaining competitive advantage, as well as strategy.

2.5 Knowledge Management

Knowledge management is a process of formatted and directed in digesting information that has been owned by a company and looking for what is needed by each individual within the company to then facilitate it to be easily accessible and always available whenever needed (Sembel and Santoso, 2002: 195)[13]. Knowledge management is an organized knowledge management to create business value and generate competitive advantage (Tiwana, 2000: 5)[17]. According to Debowski (2006: 16)[3] knowledge management is the roses of identification, capture, organizing and disseminating intellectual assets that are important for the long-term performance of the organization. Thus, it can be concluded that knowledge management is a process for searching, finding, storing, and sharing knowledge (expertise, skills, experience, and network) owned by individuals within an organization to organizations and other individuals within the organization.

Implementation of knowledge management or knowledge management will have a positive effect on the business processes of the company either directly or indirectly, some of the benefits of knowledge management or knowledge management for the company include:

- a. Time and cost savings. With a well-structured knowledge source, it is easy for the company to use

that knowledge for other contexts so that the company can save time and money.

- b. Increased knowledge assets. Sources of knowledge will provide every employee with ease to use it so that the process of utilization of knowledge in the corporate environment will increase, which ultimately the process of creativity and innovation will be pushed more broadly and each employee can improve their competence.
- c. Ability to adapt. Companies will be able to adapt easily to changing business environment.
- d. Increased productivity. Existing knowledge can be reused for the process or product to be developed so that the productivity of the company will increase.

According to Soleh (2011: 33)[14] indicators of knowledge management is the identification of knowledge, reflection of knowledge, knowledge sharing and use of knowledge.

3. RESEARCH METHODS

3.1 Conceptual Framework

The research model framework based on the research literature review suggests that market orientation, organizational creativity, and management knowledge play a different role in contributing to innovation, as well as innovation contributing to competitive advantage. The frame model image as follows:

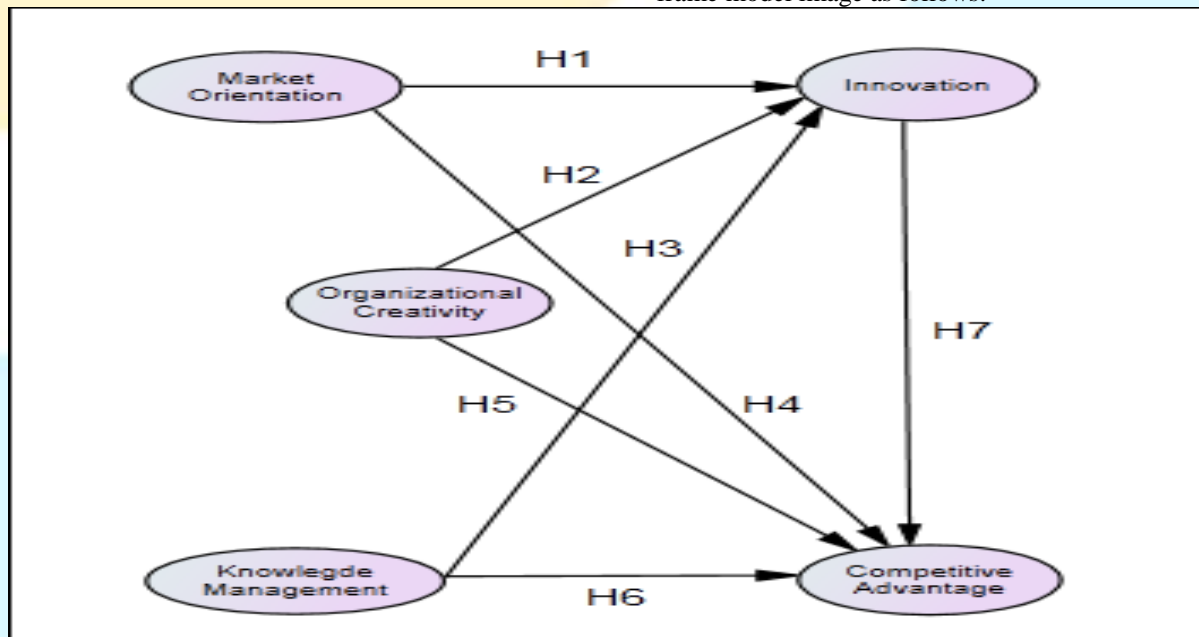


Figure 1. The Concept of Research Model

3.2 Sample

The sample is part of the number and characteristics possessed by the population (Sanusi, 2014)[11]. Sampling technique used is purposive sampling that is sample determination technique with certain consideration (Sugiyono, 2013)[16]. Sugiyono said that this technique is suitable for quantitative research. The sample selection is determined by several criteria consisting of the food

industry, beverage, textile, garment, leather, metal, rattan and wood processing. The number of workers is more than 100 people because according to BPS stipulations are classified large companies and have been doing business for 5 years and is assumed to have felt the results of his business. Respondents are top managers from large manufacturing industries in Bekasi and surrounding areas. In this study, the questionnaires were distributed as much as 186 according to the portion of the manufacturing

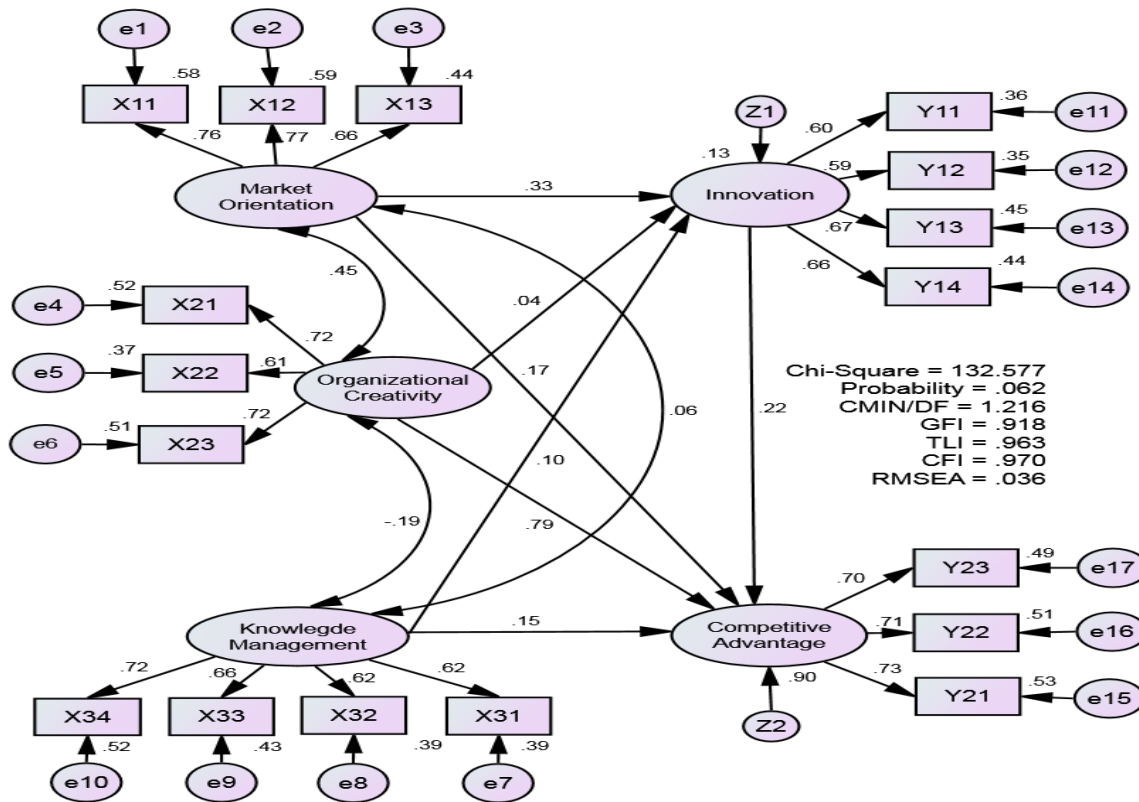
industry. In accordance with the sample requirements for SEM is between 100-200 samples (Ferdinand, 2002)[4], then the number of samples as many as 186 already meets the criteria with a tolerable error rate of 5 percent.

3.3 Analysis Technique

The analytical technique that is operated used in this research is Structural Equation Modeling (SEM) operated through AMOS 22 program.

4. RESULTS AND DISCUSSION

Results of processing and data analysis in full SEM model can be presented as follows.



Processed Results Data, 2017

Figure 2. Full Model Structural Equation Model (SEM)

Results of data processing and analysis model full model as follows:

Table 2. Results of Model Feasibility Testing

<i>The goodness of Fit Index</i>	<i>Cut off Value</i>	Result	Criteria
Chi-Square (df =109)	< 134,368	132,677	Good
Probability	≥ 0,05	0,062	Good
CMIN/DF	≤ 2,00	1,216	Good
GFI	≥ 0,90	0,918	Good
TLI	≥ 0,95	0,963	Good
CFI	≥ 0,95	0,970	Good
RMSEA	≤ 0,08	0,036	Good

Processed Results Data, 2017

The SEM analysis performed the model suitability test shown in Table 2 and obtained a fit index on the weighted proportion of the variance in the sample covariant matrix. The result of conformity test in the research that was

developed obtained the significance level of difference test is chi-square equal to 132,577 with probability value equal to 0,062 which is above the 0.05 significance limit. This shows that there is no significant difference between

the data covariance matrix and the estimated covariance matrix. This means that the null hypothesis that there is no difference in sample covariance matrices and the estimated population covariance matrix cannot be rejected. So the constructs in this research model are acceptable. Other model conformity indexes such as CMIN / DF 1.216 are smaller than 2.00; GFI value of

0.918 greater than 0.90; the value of TLI 0.963 and CFI 0.970 which is greater than 0.95; the value of RMSEA 0.036 is smaller than 0.08. The relationship between variables become the basis in the hypothesis proposed in this study. Hypothesis testing proposed in this research is done by analyzing the value of Critical Ratio (CR) and the probability of a causality relationship.

Table 3. Hypothesis Testing

Variable			Estimate	S.E.	C.R.	P
Innovation	<---	Market_ Orientation	0.261	0.104	2.497	0.013
Innovation	<---	Knowlegde_ Management	0.288	0.132	2.878	0.017
Innovation	<---	Organizational_ Creativity	0.029	0.097	2.304	0.015
Competitive_ Advantage	<---	Knowlegde_ Management	0.191	0.105	1.814	0.04
Competitive_ Advantage	<---	Innovation	0.317	0.13	2.434	0.015
Competitive_ Advantage	<---	Organizational_ Creativity	0.84	0.142	5.924	***
Competitive_ Advantage	<---	Market_ Orientation	0.192	0.111	1.727	0.014

Processed Results Data, 2017

From Table 3 hypothesis testing as follows:

- Hypothesis Testing 1**
The estimation parameter for testing the effect of market orientation on innovation shows CR value of 2.497 with a probability of 0.013. Therefore probability value < 0,05 hence can be concluded that variable of market orientation proved significantly influence to innovation.
- Hypothesis Testing 2**
The estimation parameter for testing the influence of organizational creativity on innovation shows CR value of 2,304 with probability equal to 0,015. Because probability value < 0,05 hence can be concluded that organizational creativity variable proved significantly influence to innovation.
- Hypothesis Testing 3**
The estimation parameter for a test of the influence of management knowledge to innovation shows CR value 2,878 with probability equal to 0,017. Because probability value < 0,05 hence can be concluded that variable of knowledge management proved significantly influence to innovation.
- Hypothesis Testing 4**
The estimation parameter for testing the effect of market orientation on competitive advantage shows CR value of 1.727 with a probability of 0.014. Because probability value < 0,05 hence can be concluded that variable of market orientation proved significantly influence to competitive advantage.
- Hypothesis Testing 5**

The estimation parameter for testing the influence of organizational creativity on competitive advantage shows CR value of 5,924 with a probability of 0.000. Therefore probability value < 0,05 hence can be concluded that creativity of organization proved significantly influence to competitive advantage.

- Hypothesis Testing 6**
The estimation parameter for testing the effect of management knowledge on competitive advantage shows CR value 1.814 with probability equal to 0,04. Because probability value < 0,05 hence can be concluded that management knowledge variable proved significantly influence to competitive advantage.
- Hypothesis Testing 7**
The estimation parameter for testing the effect of innovation on competitive advantage shows CR value 2,434 with probability equal to 0,015. Therefore probability value < 0,05 hence can be concluded that innovation variable proved significantly influence to competitive advantage.

4.1 Influence Analysis

The influence analysis is done to analyze the strength of influence between constructs, both direct and indirect effects. The direct effect is the coefficient of all coefficient lines with one end dart. The indirect effect is the effect that arises through an intermediate variable (Ferdinand, 2005).

Table 4. Standardized Direct Effects

Variable	Knowlegde_ Management	Organizational_ Creativity	Market_ Orientation	Innovation	Competitive_ Advantage
Innovation	0.099	0.039	0.329	0	0
Competitive Advantage	0.152	0.79	0.171	0.223	0

Processed Results Data, 2017

Based on Table 4 it can be seen that the direct effects of market orientation on innovation and competitive advantage are 0.329 and 0.171, respectively; organizational creativity to innovation and competitive advantage of 0,039 and 0,79; management knowledge on innovation and competitive advantage of 0,099 and 0,152

respectively; innovation has an influence on competitive advantage of 0.317. Referring to the value of standardized direct effects on each variable, it can be seen that market orientation is the main or dominant variable affecting innovation and competitive advantage.

Table 5. Standardized Indirect Effect

Variable	Knowlegde_ Management	Organizational_ Creativity	Market_ Orientation	Innovation	Competitive_ Advantage
Innovation	0	0	0	0	0
Competitive Advantage	0.022	0.009	0.073	0	0

Processed Results Data, 2017

Based on Table 5 shows the indirect influence of each variable on other variables. The effect of market orientation on competitive advantage mediated by innovation is 0.073; the effect of organizational creativity on competitive advantage is mediated by innovation is 0.009; the effect of management knowledge on competitive advantage mediated by innovation is 0.022.

Product uniqueness, product quality, and competitive prices provide support for competitive advantage. The greatest support for competitive advantage is an indicator of product uniqueness.

5. CONCLUSIONS AND SUGGESTION

5.1 Conclusion

Based on the results of research on the effect of market orientation, organizational creativity, and management knowledge on competitive advantage through innovation, it can be concluded that:

1. Market Orientation
Customer orientation, competitor orientation, and inter-functional coordination provide support to market orientation. The greatest support on market orientation is the competitor's orientation indicator.
2. Organizational Creativity
Organizational climate, leadership and organizational culture provide support to organizational creativity. The greatest support for organizational creativity is an organizational climate indicator.
3. Knowledge Management
Knowledge identification, knowledge reflection, knowledge sharing and knowledge use. Provide support to management knowledge. The greatest support to management knowledge is an indicator of knowledge use.
4. Innovation
Product innovation, process innovation, marketing innovation and organizational innovation provide support for innovation. The greatest support for innovation is an indicator of marketing innovation.
5. Competitive Advantage

5.2 Suggestion

In accordance with the conclusions that have been achieved, the suggestions of this study are as follows:

1. For the manufacturing industry. In increasing the competitive advantage, it is expected that the manufacturing industry will continue to improve the quality of the products in order to compete with other regions or other countries by prioritizing the uniqueness of its products. The uniqueness of manufactured industrial products can be done by improving marketing innovation that is developing e-commerce marketing.
2. In enhancing the competitive advantage of the manufacturing industry, it is expected to improve customer orientation by knowing the wants and needs of the customers that are coordinated with all parts to be customer and market-oriented.
3. In enhancing the competitive advantage of the manufacturing industry, it is expected to enhance the organizational creativity by conducting a wise leadership attitude and can seek business opportunities and organizational culture that is creative and conducive.
4. For local and national governments, it is expected to provide training in its development to improve the competitiveness of manufacturing industry, in order to compete with other regions and even foreign countries such as training to create unique motives, design, and product diversification.
5. For the local and central government to provide soft capital to develop and improve the business of

manufacturing industry in order to be competitive and have advantages.

6. For further research, to examine sustainable excellence will be a challenge for the next researcher by including external environment variables and technological changes.

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