Strategy to Improve the Innovation Performance of Batik Industrial Cluster

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Abstract

One of the problems with the growth of batik industrial clusters in Indonesia is the interest of business owners to consistently develop new ideas and creativity through product and process innovation. This problem causes most of the SMEs in Batik in the industrial cluster to experience a decline in turnover and difficulty meeting customer needs and desires. This study focuses on the function of knowledge management as a mediator and tries to develop a conceptual model that describes the impact of entrepreneurial orientation, industrial cluster, and knowledge management on the innovation performance of the batik industry cluster. This study uses the SEM PLS method to test the effect of these variables. The test results show that entrepreneurial orientation and industrial clusters significantly affect innovation performance, and knowledge management is a mediator of this influence. The study's findings might be consulted when developing a plan to boost the effectiveness of innovations in the batik industrial cluster.

Keywords

Industrial Cluster, Batik, Entrepreneurship Orientation, Knowledge Management, Innovation Performance, Mediation effects

1. Introduction

Indonesian batik, the whole technique, technology, and development of related motifs and cultures, has been recognized by the United Nations of Educational, Scientific, and Cultural Organization (UNESCO) as a Masterpiece of the Oral and Intangible Heritage of Humanity since October 2, 2009. Since the recognition of Batik by UNESCO, the batik industry has become one of the creative industries in Indonesia that have developed rapidly and has enormous potential to develop markets both at national and international levels (Ismail, 2015). Based on the 2016 creative economy survey results, the value of batik exports in 2015 was USD 156 million or equivalent to Rp 2.1 trillion, up 10 percent from 2014. In 2016, the value of batik cloth exports and batik products reached USD 149,9 million. The main markets are Japan, the United States, and Europe.

Very few batik products in Indonesia are produced by large-scale industries. Most of the batik is produced by small and medium industries (SMEs). However, as a business entity, SMEs also face several problems, both internally and externally. Some internal problems include capital issues, financial administration, regeneration, and single management. The external problems include business climate problems and limited infrastructure owned by SMEs (Lestari, 2005). Based on research conducted by Marijan (2005) and Lestari (2010), the formation of industrial clusters can be a solution to the problems faced by SMEs and increase their competitiveness of SMEs.

An industrial cluster is several companies and institutions that are concentrated in an area, as well as interconnected in special fields and support competition (Lestari, 2010). Cluster is one of the solutions to the problem of the Indonesian economy, for example, the ASEAN Economic Community (AEC). The industrial cluster also plays a role

in producing new knowledge and innovations which ultimately creates high competitiveness. The climate of healthy competition in the industrial cluster puts effective competition pressure on encouraging the need for innovation (Mazur, et al., 2016).

One of the problems faced by the batik industry cluster in Indonesia related to innovation is the low desire of business owners to continue to develop new ideas and creativity through product and process innovations (Setyanti, et al., 2013). This is also in line with the preliminary study conducted in the Batik Industry Cluster in Pekalongan City, where the stakeholder of the industrial cluster states that the Batik SME in the industrial cluster still tends to maintain the current processes and products and does not carry out innovation strategies. This causes most of the Batik SMEs in the industrial cluster to decline in turnover and difficult to meet the needs and desires of customers. Based on research by Popadiuk & Choo (2007), innovation is the main strategy that can be used by companies to increase their competitive advantage so that companies can continue to grow and survive by creating something that cannot be done by their competitors. Therefore, Batik SMEs need to innovate to maintain and develop their business.

The innovation is generally in the form of product innovation and process innovation. In such conditions, where product innovation and process are considered the key to the success of a company, entrepreneurial orientation is believed to be a manifestation of product innovation and process (Ireland & Webb, 2007). Lumpkin & Dess (2001) explains that entrepreneurial orientation plays an important role in increasing the company's ability to survive and develop through increasing innovation in the company. It can be concluded that, along with increasing the orientation of entrepreneurship, the performance of the company's innovation will also increase by the creation of innovation in the form of products and processes (Zahra, et al., 1999).

In addition, companies that continue to innovate tend to support the development of new ideas, and then increase the development of new products and processes (Lumpkin & Dess, 2001). Product development and new processes involve extensive and intensive knowledge activities. In a competitive climate as it is today where the only certainty is uncertainty, knowledge is considered the main factor of the company's success and is considered the foundation of innovation.

Knowledge management is defined as a planned and structured process to obtain, share, and apply knowledge as a company's assets to improve innovation performance (Lin, 2005). Previous research proves that effective knowledge management can facilitate the communication and exchange of knowledge needed in the innovation process, and subsequently increases the performance of innovation through the development of new capabilities and insight (Argote, et al., 2003).

Previous research conducted by Lai, et al., (2013) discussed the influence of human resources owned by an industrial cluster and the relationship between clusters on the performance of innovation from the industrial cluster with the role of knowledge management as a mediator. Research Madhushi, et al., (2011) discuss the role of knowledge management as a mediator in the influence of entrepreneurial orientation on innovation performance. But no research integrates the influence of industrial clusters and entrepreneurial orientation on the performance of the innovation of the batik industry cluster with knowledge management as a mediator.

In this study, an analysis of the industrial cluster and entrepreneurial orientation of the company will be conducted on the performance of innovation from the industrial cluster. In addition, this research also focuses on the role of knowledge management as a mediator of the magnitude of the influence of resources and relations between industrial clusters and the entrepreneurial orientation of the company on the performance of innovation from industrial clusters.

2. Literature Review

Batik industry

Most batik industries in Indonesia are classified into the Small and Medium Enterprises Industry (SMEs). The development of the industry still requires policies from the government so as not to recede. Lately, the batik industry began to recede in Indonesia. This can be seen from the reduction in batik production efforts. For example, the batik industry in Yogyakarta in the 1970s was registered with 1200 business units while until 2008 there were only 400 business units that were still surviving (Nuranun, et al., 2008).

Industrial Cluster

According to Porter (1990), the industrial cluster is the geographical concentration of interconnected companies, suppliers, service providers, industrial companies, and related institutions that are in certain areas that compete but also cooperate. The cluster also consists of the government and other industries that provide service support such as training, education, information, research, and technology support.

Here are some of the benefits of the existence of industrial clusters (Mazur, et al., 2016):

1. Industrial clusters play a role in producing new knowledge and innovations. As a producer of new knowledge and innovation, clusters create high competitiveness. The cluster innovation process involves suppliers and consumers, as well as companies from other industries, and as a result, the costs incurred for research and development can be minimized
2. The cluster structure creates a positive impact not only on cluster associations and their members but also on related regions. For example, increasing employment, increasing regional income, increasing the intensity of entrepreneurial activities
3. Creating a continuous distribution system of technology, knowledge, products, and new technology networks
4. Able to carry out internal standardization and specialization, thus minimizing innovation costs.

Knowledge management

Knowledge Management is a systematic process of obtaining, organizing, implementing, sharing, and updating all forms of knowledge, to improve organizational performance and create values (Choo, 2006). Knowledge management aims to facilitate access, use, and reuse of valuable sources of knowledge (Dieng-Kunz & Matta, 2002)

Entrepreneurial orientation

Research by Lumpkin & Dess (1996) explains the concept of entrepreneurial orientation consisting of processes, structures, and behaviors that can be described as aggressive behavior in competitive, innovative, proactive, risky, and carrying out autonomy. The entrepreneurial orientation dimensions used in this study are as follows:

1. Autonomy
   Lumpkin & Dess (1996) defines autonomy as a desire and ability to work independently when faced with an opportunity or when undergoing organizational challenges. Depending on the organizational structure and management style applied, the principle of autonomy is generally carried out by decision makers (decision makers)
2. Risk-taking
   Sharma & Dave (2011) found that Risk-Taking is the dimension of the most influential entrepreneurial orientation at the company's success level compared to other dimensions. Risk-taking can be interpreted as an instant action taken at a moment of uncertainty.
3. Proactive
   Madsen (2007) states that proactive is an attitude of anticipating and acting according to market needs in the future
4. Innovative nature
   Lumpkin & Dess (1996) define innovative nature as a tendency for the company to commit to supporting the creative process and the development of new ideas and discoveries that can produce new products and processes

Innovation Performance

OECD (2005) defines innovation performance can be defined as the ability to convert innovation input into output, and then convert innovation capabilities into market implementation. The result of innovation performance is the success of innovation.

3. Research Methodology

Research analysis model

In this study, the analysis model adopted the model of Lai, Shu, Lin, Chen, & Lin's (2013) research entitled The Effects of Industry Cluster Knowledge Management on Innovation Performance; as well as research by Madhoushi, Sadati, Delavari, Mehdivand, and Mihandost (2011) entitled Entrepreneurial Orientation and Innovation Performance: The Mediating Role of Knowledge Management. This study also adopted a model from the research of Ardyan,

Rahmawan, and Istianto (2016) entitled Building Entrepreneurial Networking Quality to Improve the Success of Innovation and Batik SMEs Performance; as well as Farida's research (2017) regarding Antecedent of Innovation and Marketing Performance in Batik Industry. The analysis model in this study can be seen in Figure 1.

Research Hypothesis

An industrial cluster can be said to be successful if the company in the industrial cluster can form a network with other companies. Whereas in the network there is an exchange of information and knowledge (Breschi & Marleba, 2001). Therefore, an industrial cluster with more advanced knowledge and techniques will be more attractive to new companies because they are because of the knowledge and capabilities of the new company (Maskell, 2001A). Based on this research, this study proposes that interactions that occur in an industrial cluster can be centered on knowledge. Cluster resources and relationships between companies in clusters can be used to obtain or create new knowledge that affects innovation performance. (Figure 1)

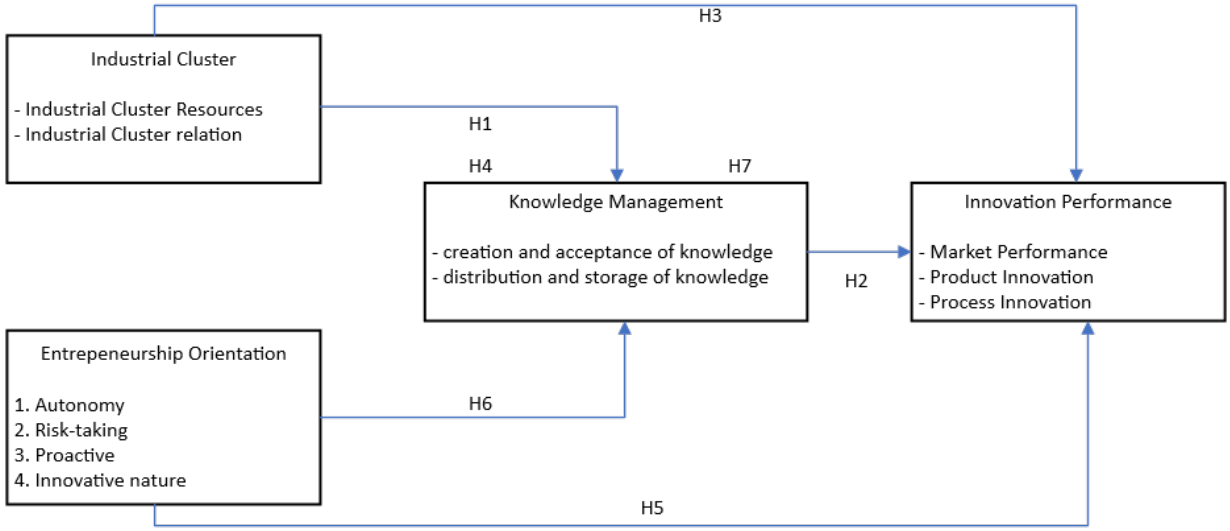

Figure 1. The Analysis Model

H1. Industrial cluster significantly and positively influences knowledge management.

In the company's innovation process, company employees indirectly contribute to making new techniques and knowledge when creating and testing new products. Then, the knowledge gained by the employee will be distributed to other employees, or even to other companies, therefore, knowledge management is the key to reducing uncertainty when creating a technical system (Casanueva, et al., 2013), (Belso-Martinez, et al., 2011). Based on the above studies, it can be said that innovation activities create an environment to exchange knowledge. At the time of product development, innovation encourages employees to be able to interact and exchange knowledge, which then encourages the need for knowledge, and develops a variety of knowledge activities in which then the knowledge can be integrated.

H2. Knowledge management significantly and positively affects the performance of innovation.

Based on research from Maskell (2001B), cooperation between upstream and downstream companies effectively reduces transaction costs and develop fixed contracts between the two. Based on the perspective of network theory, positive interaction is one of the main factors the company can maintain a competitive advantage (Bell, 2005). Gunawali & Srivastava (2013) and Zhang & Li (2010) state that the industrial cluster can improve the performance of the company's innovation. Based on the above research, through the industrial cluster, companies can easily obtain the required resources, to reduce the costs incurred. This can increase the impact resulting from cluster relationships, which then affects the performance of company innovation.

H3. The industrial cluster significantly and positively affects the performance of innovation.

Tallman, et al., (2004) states that, through the exchange of information that occurs in a cluster, companies can reduce investment costs, access the same supplier, foster professional labor, and develop techniques and knowledge. Based on Leonard's research (2000), in high industrial cluster competition, some important capabilities and knowledge in business management are very important for industrial clusters to support their activities. Research conducted by Yli-renko, et al., (2001) states that the industrial cluster network provides access to information, as well as the acquisition of knowledge provides a positive correlation with the exploitation of knowledge on innovation performance. The exchange of information and knowledge that occurs in an industrial cluster can improve the company's ability, creation of knowledge, and innovation performance (Tallman, et al., 2004) and (Maskell, 2001a). Based on the above research, the industrial cluster not only enhances relations between companies but can also make it easier to find talented individuals. Therefore, companies can easily get techniques and knowledge, as well as professional labor that can improve industrial performance.

H4. Knowledge management is a mediator of significant and positive relationships between industrial clusters and

innovation performance.

Entrepreneurship orientation can be considered as a process, practice, philosophy, and decision-making activities that direct the company and organization to innovation (Lumpkin & Dess, 2001); (Wiklund & Shepherd, 2005); (Li, et al., 2009). Research by Lumpkin & Dess, (2001); Wiklund & Shepherd, (2005); Li, et al., (2009); (and Covin & Slevin, 1991) shows the importance of entrepreneurial orientation to the ability to survive and company performance. Innovation is a crucial factor for company performance due to the evolution of the competitive environment (Bueno & Ordofiez, 2004). Based on WEST & INASITI research, (2003) and Brockman & Morgan, (2003) innovation performance has a direct impact on company performance. In addition, research by Ireland (2007) in addition to entrepreneurial actions has a direct impact on product innovation and processes. Therefore, entrepreneurship orientation increases autonomy, competitive behavior, proactive, and the company's desire to take risks and innovate (Zahra, et al., 1999); (Lumpkin & Dess, 2001).

H5. Entrepreneurship orientation has a positive and significant impact on innovation performance.

In general, previous research focuses on the independent influence of entrepreneurial orientation on the performance of company innovation and ignores the possibility of factors that are the mediator of the strong influence of entrepreneurial orientation on the performance of company innovation. Wiklund & Shepherd, (2005) believes that entrepreneurial attitudes and behavior are critical factors for new businesses to maximize the use of new and previous knowledge to find new market opportunities. On the other hand, companies that continue to innovate tend to support the formation of discoveries and ideas and continue to develop new processes and products (Lumpkin & Dess, 1996); (Li, et al., 2009). The development of new processes and products involves broad and in-depth knowledge activities. Companies with entrepreneurial orientation tend to depend on the knowledge and ability of their employees as the main input in the process of knowledge (Lumpkin & Dess, 1996). Therefore, based on the significant role of knowledge to find new opportunities and ideas, knowledge management needs to be done appropriately. In line with this, companies with an entrepreneurial orientation will be more likely to focus their attention and business on the management of their knowledge.

H6. Entrepreneurship orientation significantly and positively influences knowledge management.

H7. Knowledge management is a mediator of a significant and positive relationship between entrepreneurial orientation and innovation performance.

Operational Definition of Research Variables

The operational defense of the variables and sub-variables used in this study is shown in Table 1

Table 1. Operational Definition of Research Variables

Variable	Definition
Industrial Cluster	The industrial cluster is the geographical concentration of interconnected companies, the government, suppliers, service providers, industrial companies, and related institutions that are in certain areas that work together (Porter, 1990).
Knowledge Management	

	Knowledge management is a systematic process of obtaining, organizing, implementing, sharing, and updating all forms of knowledge, to improve organizational performance and create values (Choo, 2006)
Innovation Performance	Innovation performance is defined as the ability to convert innovation input into output, and then convert innovation capabilities into market implementation (Ernst, 2001).

Location and time of research

The study was conducted in the Batik Industry Cluster in Solo, Pekalongan, and Semarang. The selection of the three industrial clusters is because the three industrial clusters are three large batik producers in Central Java so the results of the research can be generalized. Samples taken randomly by taking data are done directly using the hardcopy questionnaire. Data collection is only done through one stage. The study was conducted from November - December 2019.

Research sampling technique

The sampling technique used in this study is a non-probability technique or random sample. Sampling was carried out based on researchers' considerations. Specifically, sampling in this study uses the purposive sampling method or using consideration and certain objectives.

Data collection

The questionnaire used in this study is a closed questionnaire, which is a questionnaire compiled by providing a complete answer choice so that the respondent simply only gives a sign to the answer he chose (Sugiyono, 2012). The questionnaire assessment is determined by a Likert scale of five points of measurement level. These five points show:

- Point 1 = strongly disagree
- Point 2 = disagree
- Point 3 = neutral
- Point 4 = agree
- Point 5 = strongly agree

Data processing with SEM-PLS

Several steps need to be taken to process data using Structural Equation Modeling (SEM) - Partial Least Square (PLS), namely (Chin, 1998):

1. Designing a structural model (inner model)
2. Designing a measurement model (Outer Model)
3. Make a path diagram (path diagram)
4. Convert the path diagram into the equation and estimate the parameters
5. Evaluate the model
6. Perform hypothesis testing

4. Research Results

Evaluation of the measurement model (outer model)

The evaluation of the measurement model was carried out using the convergent validity, discriminant validity, and composite reliability test. The convergent validity test aims to show the correlation between the reflective indicator score with its latent variable. Evaluation using convergent validity is done by looking at the outer loading parameter. In the initial study, the value of the outer loading is still considered sufficient, namely between 0.5-0.6 (Ghozali, 2014). In addition, the convergent validity test can be done by looking at the Average Variance Extracted (AVE) parameter. Variables with AVE <0.5 value will be evaluated by eliminating indicators that have the smallest value. Furthermore, after elimination, the model will be re-evaluated continuously until there is no value of the AVE parameters and loading factors <0.50.

The discriminant validity test is used to determine the presence or absence of correlation between indicator variables and other latent variables. The way to find out is by looking at the cross-loading value on each indicator, if the cross-

loading value is an indicator with another latent variable greater than the cross-loading value with its latent variable, then the indicator cannot measure the latent variable well.

The reliability test is used to prove the accuracy, consistency, and accuracy of indicators in measuring latent variables. The reliability of this indicator can be seen in the value of composite reliability and Cronbach's alpha, if the value of composite reliability and Cronbach's alpha is greater than 0.7 then it can be said that the indicator is consistent in measuring its latent variables (Ghozali, 2014). The evaluation results of the measurement model can be seen in Appendix A.

Evaluation of Structural Model (Inner Model)

The measurements used to evaluate the structural model (inner model) are the coefficient of determinants (R2), predictive relevance (Q2), effect size (F2), and quality indexes. The value of R2 is used to explain the effect of certain exogenous constructs on endogenous constructs, and whether it has a substantive effect. The value of R2 0.670 enters the category of strong models, the value of R2 0.330 is included in the moderate model category and the value of R2 0.190 is included in the weak model category (Chin, 1998). The R2 value of each latent variable is shown in Table 2.

Table 2. R Square Score

Variable	R Square	Category
Y1	0,867	Strong
Z1	0,67	Strong

Predictive relevance (Q^2) is used to measure the ability of model predictions. $Q^2 > 0$ values indicate that the model has predictive relevance while Q2 <0 shows that the model has less predictive relevance. The Q^2 value in the model in this study is as follows:

$$Q^2 = 1 - (1 - R_1^2)(1 - R_2^2) \dots (1 - R_p^2) \quad \text{.....(1)}$$

$$Q^2 = 1 - ((1 - 0{,}879)(1 - 0{,}67)) = 0{,}956$$

With a Q^2 value of 0.956, it can be concluded that the model is included in the predictive relevance category, which means a structural fit model with data or has a good ability to predict the model.

The size of effect size (f^2) shows whether the endogenous variable has a large effect on the exogenous variable. The f^2 value of 0.020 shows that the effect of endogenous constructs on exogenous constructs is small, the value of 0.150 shows that the effect of endogenous constructs on exogenous constructs is medium, and 0.350 shows that the effect of endogenous constructs on exogenous constructs is large (Vinzi, et al., 2010). The f^2 size is shown in Table 3.

Table 3. f^2 Score

relation	f square	Category
X1 → Y1	0.040	Small
X1 → Z1	0.012	Small
X2 → Y1	0.897	Large
X2 → Z1	1.002	Large
Z1 → Y1	0.155	Medium

The goodness of fit (GOF) is a measure of fit indexes that aims to evaluate the measurement model (outer model), structural model (inner model), and simple measurements for the whole of the model prediction. The GOF value of 0.100 is included in the small category, the value of 0.250 is included in the medium category and the value of 0.360 is included in the large category (Ghozali, 2014).

$$GoF = \sqrt{\overline{AVE}\, x\, \overline{R^2}} \quad \text{.....(2)}$$

$$GoF = \sqrt{0{,}537\ x\ 0{,}7745} = 0{,}64$$

The GOF value of 0.64 shows that the model has large goodness of fit value.

Hypothesis test
The test was carried out using the bootstrapping method in SmartPLS 3.0 software. Hypothesis test results are shown in Appendix B.

Mediation Effects
Mediation effects test results are shown in Appendix C.

5. Discussion

Based on the results of the hypothesis testing of the Batik Industrial Cluster Innovation Research and the role of knowledge management as the above mediator, the improvement recommendations were prepared that could be given to the Batik Industry Cluster Management, Batik SMEs, and the Government is shown in Table 5.

Table 5. Recommendations for Improvement

No.	Strategy	Program
1.	Improve the ability of Batik SMEs	• Workshops and training to increase awareness of the importance of entrepreneurial orientation • Workshops and Training on Entrepreneurship Orientation Implementation Strategies at SMES Batik • workshops and training on technology and or new knowledge • Form a mentoring team to assist Batik SMEs in the implementation of the workshop and training results • Implementation of workshop results and training at SMEs Batik with the help of the Assistance Team • Form an assessor team to evaluate and evaluate the level of achievement of the implementation of the results of the workshop and training • Conduct an assessment and evaluation of the level of achievement of the implementation of the results of the workshop and training by the assessor team with the Batik Assistance and SMES Team
2	Build Strategic Collaboration	• Build collaboration with the government in the form of training in batik HR skills ready for work and increasing competency-based HR technical capabilities • Build collaboration with the government in the form of e-commerce development • Building collaboration with the government in the form of standardization and IPR facilities • Cooperate with Batik SMEs in the Industrial Cluster in the procurement of joint raw materials from the same supplier
3	Improve the Knowledge management of Batik SMEs	• Carry out knowledge management initiatives • Build a computer-based knowledge management system

6. Conclusion and Future Research

Based on the test results, it is known that increasing and developing industrial clusters will improve the performance of the innovation of the batik industry cluster. Besides that, increasing entrepreneurial orientation will increase the management of company knowledge as well as the performance of the innovation of the Batik Industry Cluster. The industrial cluster has a small influence on knowledge management and innovation performance in the batik industry

cluster. Whereas entrepreneurship orientation has a great influence on the management of knowledge and performance of the batik industry cluster innovation. Knowledge management has a sufficient (medium) influence on the performance of the Batik Industry Cluster innovation. Recommendations that can be given to the Batik Industry Cluster to improve the performance of innovation from the batik industry cluster are to implement a strategy to improve the ability of Batik SMEs, build strategic collaboration, and improve the management of Batik SMEs' knowledge.

Suggestions that can be given to improve further research are subsequent research is not only limited to the cities of Pekalongan, Semarang, and Solo but can be done on a national scale so that it can be known how the performance of the batik industry cluster innovation in Indonesia. Further research that can be done is not only limited to measuring innovation performance but can measure the overall performance of the batik industry cluster business using variables and other indicators

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Biographies

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Appendix A

Table A. The evaluation results of the measurement model

Variable	Indicators	*Loading*	Alpha	CR	AVE
Industrial Cluster	The company can maintain the technical capabilities of its employees	0,706	0,843	0,884	0,561
	The company has a vertical relationship with upstream and downstream companies to minimize the costs incurred by the company	0,766			
	The company can establish relationships with companies in supply chains and focus on the creation of innovative production techniques and processes	0,789			
	Companies can increase the measurement and dissemination of information with other companies in the industrial cluster	0,722			
	Companies can more easily improve information exchange and interpersonal relationships in the company	0,777			
	Companies can easily develop a strategic alliance	0,728			
Knowledge Management	The company provides feedback on projects that have been undertaken to improve future project performance	0,664	0,862	0,892	0,510
	The company has a good mechanism to encourage employees to submit creative and effective improvements	0,752			
	Companies develop many creative ideas through various creative methods	0,736			
	The company builds information systems and build a knowledge system	0,71			
	The company can maintain the techniques and knowledge of the company's work	0,649			
	Employees can obtain the data needed for work through a database or from other employees	0,682			
	Employees usually communicate with other employees to solve problems at work	0,725			
	Companies have a clear mechanism for technical management and knowledge	0,786			
Innovation Performance	Customers have a high demand for company products	0,699	0,936	0,945	0,576
	Customers are very satisfied with the company's products	0,747			
	Stocks owned by the company increased continuously	0,715			
	The level of company benefits increases every year	0,735			

	The company emphasizes the development of new production methods and procedures	0,716			
	Companies more often introduce new production methods than their competitors	0,838			
	Companies introduce more new production methods than three years ago	0,832			
	Companies introduce more new production methods than related industries	0,86			
	Companies often make product innovations	0,793			
	Companies often modify existing products	0,42			
	The company has more committed to introducing new products than its competitors	0,842			
	The company has more committed introducing new products than the average related industry	0,826			
	The company has more committed introducing new products than three years ago	0,741			
Entrepreneurship Orientation	Employees have the autonomy to do their work without continuous supervision	0,628	0,953	0,958	0,501
	The business made by the company provides freedom to the owner and employee of the company to be creative and try different methods in the implementation of the work	0,546			
	Employees are given the authority to make their own decisions without going through a complicated explanation and approval procedure	0,521			
	Employees are given the authority to manage their work and have the flexibility to solve problems	0,658			
	Employees do not always have to follow the same work methods when doing their jobs every day	0,569			
	Companies are often the first in introducing new products	0,721			
	Companies often initiate actions responded by competitors	0,725			
	Companies continue to innovate to create new products	0,856			
	The company continues to monitor market trends and identify customer needs in the future	0,863			
	When faced with uncertain decisions, the company adopts brave actions to maximize the use of opportunities	0,694			
	In general, the company has a high tendency for projects that have a high risk	0,825			
	The company believes that brave actions and have broad scope are important to achieve the company's goals	0,75			
	Employees are motivated to carry out new ideas that have a high risk that has been considered previously	0,656			
	The term "risk-taker" is considered a positive thing for company employees	0,62			
	Companies routinely introduce new production products or processes	0,847			
	The company emphasizes innovative new products	0,793			
	The company produced more than two years ago	0,766			
	The company continues to pursue new opportunities	0,771			
	Over the past few years, there has been a significant change in the production process, and the product produced	0,739			
	In the company, there is a strong relationship between the number of new ideas produced and the number of new ideas implemented	0,686			
	The company strongly emphasizes the continuous development of product delivery	0,575			

The company believes that innovation is the main need for the company's future	0,627
The company leader is trying to maximize the value of existing opportunities without the current model, structure, or resource	0,682

Appendix B

Table B. Hypotheses Test Result

Hypotheses	*Original Sample*	T *statistics*	P *Values*	Decision	Conclusion
H1	0,084	0,888	0,375	$0{,}888 < 1{,}66023$ reject H1	Influence positive but not significant
H2	0,250	3,909	0,000	$3{,}909 > 1{,}66023$ do not reject H2	Influence positive and significant
H3	0,097	1,850	0,065	$1{,}850 > 1{,}66023$ do not reject H3	Influence positive and significant
H5	0,653	8,052	0,000	$8{,}052 > 1{,}66023$ do not reject H5	Influence positive and significant
H6	0,761	11,7	0,000	$11{,}7 > 1{,}66023$ do not reject H6	Influence positive and significant

Lampiran C

Table C Mediation Effects Test Result

Hypotheses	*Original Sample*	T *statistics*	P *Values*	Keputusan	Conclusion
H4	0,021	0,895	0,371	$0{,}895 < 1{,}66023$ reject H4	Influence positive but not significant
H7	0,191	3,519	0,010	$3{,}519 > 1{,}66023$ do not reject H1	Influence positive and significant