

## THE EFFECT OF ENVIRONMENTAL CONDITION AND SHARING KNOWLEDGE BEHAVIOR TOWARD INNOVATION AND SME SONGKET WOVEN IN ENCOUNTERING COMPETITION

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### ABSTRACT

*Human resource is one of the key factors in global competition. Producing qualified and skilled human resources with high competitiveness requires efforts to develop these human resources. This research aims to investigate and analyze the effect of environmental condition variable and sharing knowledge behavior toward innovation and performance. This research was conducted in Riau Province, with total sample 77 songket SME using proportionate stratified random sampling technique. Data analysis was using Partial Least Square. The result of the research shows that the effect environmental condition variable and sharing knowledge behavior toward innovation exists. Next, the effect environmental condition variable and sharing knowledge behavior toward performance also exists. The result of the research was also used to formulate policy regarding governmental efforts to develop songket SME in the future.*

*Keywords: Performance, Behavior of Sharing Knowledge, and SME*

### INTRODUCTION

Micro, small and medium enterprises (SMEs) have a very important role in economic development and growth, not only in developing countries like Indonesia but also in developed countries. In Indonesia, in addition to playing a role in development and economic growth, SMEs also have a very important role in overcoming the problem of unemployment. The growth of micro-enterprises makes it a source of growth in employment and income. By absorbing a lot of labor, SMEs also have a strategic role in the government's efforts to fight poverty and unemployment. The contribution of the micro, small and medium enterprises sector to gross domestic product increased from 57.84% to 60.34% in the last 5 years. Uptake of labor in this sector also increased from 96.99% to 97.22% in the same period.

The development of SMEs at present is inseparable from the ability and creativity of SMEs themselves. The formation of original and unique new ideas is a mindset that is out of the box, and has an open and free mind to approach something in a new way. It is this creative mindset that encourages SMEs to always innovate on products or services produced. The ability to innovate must also be accompanied by the habit of sharing knowledge. Sharing knowledge is an effort to improve employees' performance. Performance becomes the real foundation in an organization, because if there is no performance, the organizational goals cannot be achieved. Performance needs to be used as an evaluation material to determine the high and low performance.

One of the SMEs in Riau Province is songket woven. Songket woven fabric has its own characteristics and uniqueness that have more selling value and become one of the types of typical handicrafts of local culture that are rich in beauty and aesthetics. Songket weaving is a local handicraft product that is often used for cultural activities and local and national events held. However, at present the songket weave has become a type of craft in the form of wall decorations, tissue boxes, and other trinkets in the form of souvenirs that are very popular with the community. The songket woven SMEs are SMEs that are prioritized to be developed in the future because these SME products are in high demand. However, working on the woven cloth requires carefulness and patience and high creative power to produce quality songket woven. Therefore, the behavior of SMEs in carrying out their business is very much dependent on their creativity and innovation in producing quality products and services to improve business performance.

Research related to the influence between dependent variables and independent variables is often done, but in this study try to develop research conducted by Rofiaty et al. (2010), with the results of research on knowledge sharing behavior among SMEs, which has a significant role to create innovation and creativity to improve the performance. This study tries to distinguish from previous research in terms of indicators used and the analysis techniques used, namely Partial Least Square. In addition, this research was conducted in a province that is very thick with Malay culture that often uses songket woven in various cultural activities and there needs to be an effort to preserve local culture in the form of songket woven to future generations.

This research aims to examine and analyze the direct or indirect effects of environmental conditions and knowledge sharing behaviors on innovation and performance. The problems that will be discussed in this study are related to the influence between work environment variables and knowledge sharing behavior towards innovation and the performance of songket woven SMEs in Riau Province. For this reason, songket woven entrepreneurs must face various challenges so that business sustainability can be maintained, and on the other hand, environmental conditions require companies to be more vigilant in planning their business. In a constantly changing corporate environment, companies need the power to create and maintain the core capabilities of a company by conducting knowledge sharing between companies and other companies, so as to realize creativity and innovation that will enhance competitiveness and corporate performance.

## TEORITICAL FRAMEWORK

### Work Environment Condition

Asri (2006: 73) said that environmental condition is a condition in which employees carry out an activity. This condition can be either material conditions or psychological conditions. In this case, the condition of the work environment relates to the psychological environment, so that human skills must be able to utilize every available means optimally. In creating a good working environment, there are several factors that need to be considered, such as working facilities, spatial, inter-employee relations, convenience, and security (Sarwoto, 1991: 131).

### Knowledge Sharing Behavior

According to Lin (2007) said that knowledge sharing is a culture of social interaction that involves exchanging employee knowledge, experience, and skills through the entire company. The process of sharing knowledge is very important in an organization because sharing knowledge provides a pathway between individuals and organizations by directing knowledge located at the individual to the level of the organization where it will be transformed toward economic and competitive value for organizations (Hendricks, 1998, in Ipe 2003).

Some factor can influence the process of sharing knowledge include (Hendricks, 1998, in Ipe 2003):

1. The nature of knowledge is divided into two types, namely tacit and explicit. Tacit knowledge was first introduced by Polanyi (1966, in Ipe 2003) which states that knowledge is not easy to talk about and make explicit. Tacit knowledge can also be considered a skill obtained from one's experience.
2. Motivation to share, is divided into two, namely internally and externally.
3. The opportunity to share, is divided into two, namely formal and informal processes.
4. Culture in the work environment, often recognized as a barrier to the occurrence of knowledge sharing behavior.

### Inovation

Darroch (2005) defines innovation as an output from an organization that utilizes input resources, in the form of knowledge, information, and experience that ultimately results in improved performance. Next, Rhee. J. et al (2009) stated that innovation is the ability of an entrepreneur to capture opportunities and anticipate threats that arise with environmental changes. Next, Rhee. J. et al (2009), stated 3 (three) factors that influence innovation, such as:

1. Search for ideas is the stage of making new ideas and / or strengthening existing ideas.
2. Harvesting ideas is the application of ideas that have been collected, filtered, and evaluated.
3. Development and implementation of ideas is research, experimentation, improvement, and development of an idea and its implementation.

### Performance

Bernardin and Russel (2000) stated that performance is a record of acquisition resulting from the function of a particular job or activity during a particular period of work. And Rivai (2008) states that performance is a real behavior that is displayed by everyone as work performance produced by employees in accordance with their role in the company.

According to Mahmudi (2005) said that there are five factors that influence performance, such as:

- 1) Personal / individual factors, including: knowledge, skills, abilities, confidence, motivation, and commitment that each individual has.
- 2) Leadership factors, including: quality in providing encouragement, direction and support given by managers and team leaders.
- 3) Team factors, including: the quality of support and enthusiasm given by colleagues in one team, trust in fellow team members, cohesiveness and closeness of team members.
- 4) System factors, including: work systems, work facilities or infrastructure provided by organizations, organizational processes and performance cultures in organizations.
- 5) Contextual (situational) factors, including: pressure and changes in the external and internal environment.

Furthermore, Siagian (1996) suggested that there are 5 (five) aspects that affect performance, such as quantity aspects of work, quality of work, timeliness, cooperation, and personal quality.

## RESEARCH METHOD

The research locations are in Riau Province, such as Pekanbaru City, Siak Regency, and Bengkalis Regency which are central to the weaving industry. The population in this study were all songket woven industry businesses with a total sample of 77 SMEs with the technique of proportionate stratified random sampling. Data analysis was performed with Partial Least Square (PLS). The research model is as follows:

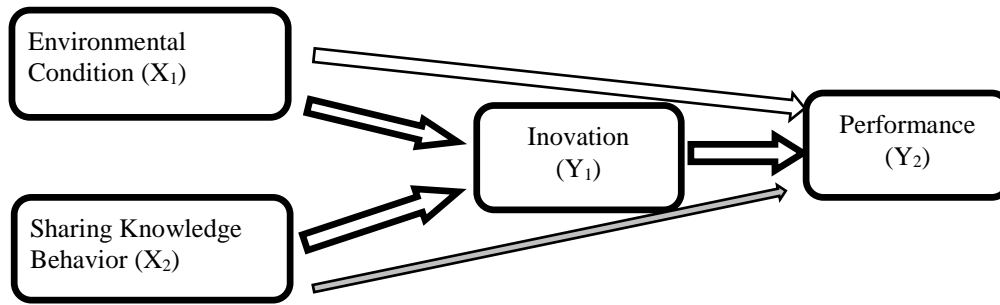


Figure I. Research Model

The hypothesis in this studies are:

1. Changes in environmental conditions can improve innovation in songket woven SMEs in Riau Province.
2. Increased knowledge sharing behavior will improve innovation in songket woven SMEs in Riau Province.
3. Changes in environmental conditions will improve the performance of songket woven SMEs in Riau Province.
4. Increased knowledge sharing behavior will improve the performance of songket woven SMEs in Riau Province.
5. Increased innovation will improve the performance of songket-woven SMEs in Riau Province.

From the framework of thought and hypothesis that has been stated above, the operational concepts of variables are needed as follows:

Table 1. Research Variable Operational

Variable	Variable Concept	Indicator
Environmental Condition (X1)	a condition in which employees carry out an activity (Marwan Asri, 2006 : 73)	<ol style="list-style-type: none"> <li>1. Work Facilities</li> <li>2. Spatial layout</li> <li>3. Relations between employees</li> <li>4. Comfort</li> <li>5. Security</li> </ol> (Sarwoto, 1991 : 131)
Sharing Knowledge Behavior (X2)	a culture of social interaction, which involves exchanging employee knowledge, experience, and skills through the entire company (Lin, 2007)	<ol style="list-style-type: none"> <li>1. Nature of Knowledge</li> <li>2. Motivation to share</li> <li>3. Opportunity to share</li> <li>4. Culture in the work environment</li> </ol> (Hendricks, 1998, in Ipe 2003)
Inovation (Y1)	the ability of an entrepreneur to capture opportunities and anticipate threats that arise with environmental change (Rhee. J. et al, 2009)	<ol style="list-style-type: none"> <li>1. Search for ideas</li> <li>2. Reward for innovation ideas</li> <li>3. Implementation of innovation ideas</li> </ol> (Rhee. J. et al, 2009)
Performance (Y2)	record of acquisition resulting from the function of a particular job or activity during a particular period of work Bernardin dan Russel, (2000).	<ol style="list-style-type: none"> <li>1. Quantity of work</li> <li>2. Quality of work</li> <li>3. Timeliness</li> <li>4. Cooperation</li> <li>5. Personal quality</li> </ol> (Siagian, 1996)

RESULTS

Structural Model Testing in PLS

The structural models produced in PLS are as follows:

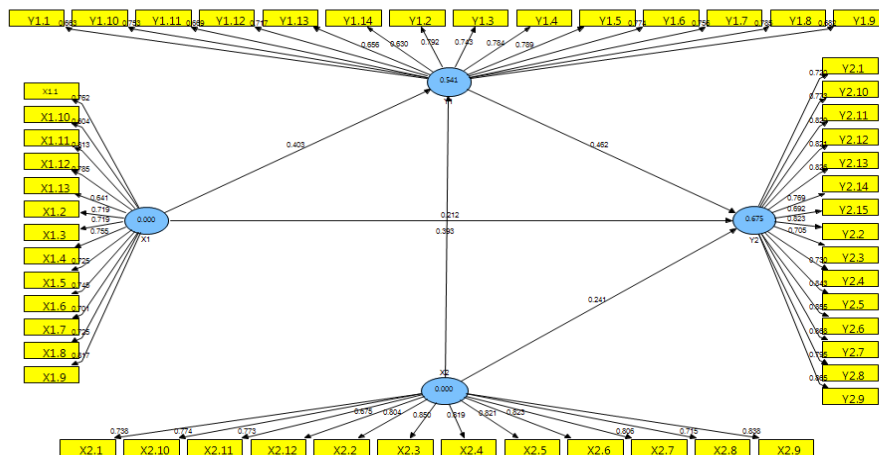


Figure 2. PLS Output Model

While the results of the interpretation of data from PLS output are in the following table:

Table 2. Path Coefficients among Variables

Variable	Original Sample (O)	t Statistics (O/STERR)
Environmental Condition (X <sub>1</sub> ) -> Inovation (Y <sub>1</sub> )	0.402702	4.694749
Sharing Knowledge Behavior (X <sub>2</sub> ) -> Inovation (Y <sub>1</sub> )	0.212365	2.066605
Environmental Condition (X <sub>1</sub> ) -> Performance (Y <sub>2</sub> )	0.392968	4.398822
Sharing Knowledge Behavior (X <sub>2</sub> ) -> Performance (Y <sub>2</sub> )	0.241255	2.012542
Inovation (Y <sub>1</sub> ) -> Performance (Y <sub>2</sub> )	0.462243	5.512169

**1. The Effect of Environmental Conditions (X<sub>1</sub>) on Inovation (Y<sub>1</sub>)**

From the table above it is known that the value of t count of 4.6947 is greater than t table of 1.9930. It means that there is a significant effect between the variable environmental conditions (X<sub>1</sub>) on the innovation variable (Y<sub>1</sub>). In other words, changes in environmental conditions can increase innovation in songket woven SMEs in Riau Province. This is in accordance with the opinion of Tidd (2001), by using library research stating that the complexity and uncertainty of the environment affect innovation and performance. Likewise with the research conducted by Fortana (2011) which states that increasingly dynamic environmental conditions are the trigger factors for many organizations to innovate. The results of other studies also show the importance of innovation, that companies that compete in global industries that invest in innovation will get higher profits (Hitt et al, 2001). If the company wants optimal business sustainability with good performance, innovation is the step that should be taken. Therefore, songket woven SMEs need to always monitor, identify, analyze, and evaluate the environment, both internal and external, to be used as a basis for innovation.

**2. The Effect of Knowledge Sharing Behavior (X<sub>2</sub>) on Inovation (Y<sub>1</sub>)**

From the table above it is known that the value of t count is 2.0666 greater than t table of 1.9930. This means that there is a significant influence between knowledge sharing behavior variables on the innovation variable. In other words, increasing knowledge sharing behavior can increase innovation in songket woven SMEs in Riau Province. This is consistent with the opinion of Darroch (2005), which states that knowledge sharing behavior influences innovation and performance. Knowledge management (KM) is currently the focus of attention from various practitioners and academics. Organizations have realized that to be able to compete in rapidly developing market conditions, it is necessary to develop competencies and knowledge that exist within the organization (Orr and Persson, 2003). Chauhan and Bontis (2004) and Kawalek (2004) stated that currently it is a "knowledge era", and only organizations that are able to manage their knowledge optimally are able to survive in a competitive

environment. At present, SMEs are required to innovate a lot because innovation is something that must be done absolutely, both quality innovation, design / motif, style, service and timely completion. With the knowledge sharing behavior, every employee involved will complement and increase knowledge so that they can create new ideas.

### **3. The Effect of Innovation (Y1) on Performance (Y2)**

From the table above it is known that the value of t count is 5.5122; greater than t table of 1.9930. This means that there is a significant influence between innovation variables on performance variables. In other words, increasing innovation can improve the performance of songket woven SMEs in Riau Province. The findings of this study are consistent with several previous studies, such as Vitale, et al, (2003), and Brockman & Morgan (2003), which states that innovation has a direct influence on company performance. In implementing innovation, companies need to focus on consumers, trying to create value more than consumer expectations. So companies are required to have the ability to develop or create products that provide positive value from products produced by competitors. In songket woven SMEs in Riau Province, the results of songket woven are made based on customer orders / requests. When viewed unilaterally, products made on order do not emphasize innovation. However, demands from consumers for the quality, design / motif, style, service and timely settlement make songket woven business trying to fulfill that desire. This has reflected innovation from the search for new ideas, and how to implement these ideas, so they can provide added value to consumers.

### **4. The Effect of Environmental Conditions (X1) on Performance (Y2)**

From the table above it is known that the value of t count is 4.3988; greater than t table of 1.9930. This means that there is a significant influence between environmental conditions variables on performance. In other words, increasing changes in environmental conditions will improve the performance of songket-woven SMEs in Riau Province. The findings of this study are in line with the results of research by Baum, et al. (2001) and Herri, et al. (2006) that environmental conditions have an indirect effect on performance. Although the level of competition among songket woven industry businesses in Riau Province is relatively not high, it should be noted if the competent songket woven entrepreneurs can produce at lower prices, better quality and timely completion in accordance with what consumers expect, this will increase customer satisfaction thus encouraging purchase. This means that environmental conditions that will dynamically affect performance.

### **5. The Effect of Knowledge Sharing Behavior (X2) on Performance (Y2)**

From the table above it is known that the value of t count is 2.0125; greater than t table of 1.9930. This means that there is a significant influence between the behavior sharing variable knowledge on performance. In other words, increasing knowledge sharing behavior will improve the performance of songket woven SMEs in Riau Province. Handzic (2004) emphasizes that knowledge sharing behavior is needed in order to increase competitive advantage in the new business environment. It is important for SMEs to be able to manage knowledge well so that it will produce high innovation, and it is hoped that its performance will be better than those of SMEs that do not have it (Churchill & Hatten, 1997). Matzler et. al., (2008) also suggested that knowledge sharing in organizations would contribute to organizational performance. Based on the results of interviews with songket W woven SME owners, he stated that as the owner of songket SMEs, he always provided training and shared his knowledge with employees and fellow SME owners of songket and this was carried out in collaboration with the Industry Office.

### **Government Policy**

Government policies that must be carried out related to efforts to develop songket Riau woven business in the future are:

1. Continue to develop and cultivate the use of songket woven in every event held.
2. Fostering and developing HR through training and introduction of online marketing systems so as to open up opportunities for SMEs to market woven fabrics using information technology.
3. Providing assistance in the form of financing and partnership patterns by providing credit and involving SMEs in various local, national and international events in the context of promotion.
4. The government's efforts to develop an entrepreneurial spirit and teach the manufacture of songket woven cloths in the Vocational Schools in Riau Province.
5. The regional government needs to create a business incubator for all SMEs to help SMEs in solving their problems.

### **CONCLUSIONS**

1. The effect of environmental conditions on innovation is significant.
2. The effect of knowledge sharing behavior on the innovation variable is significant.
3. The effect of innovation on performance is significant.
4. The effect of environmental conditions on performance is significant.
5. The effect of knowledge sharing behavior on performance is significant.

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