

Organizational Innovation and Performance on Embroidery and Needlepoint SME's in West Sumatera

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Abstract: Innovation plays an important role in developing the economy, to expand and sustain the high performance of firms, to maintain a competitive edge in the industry and improved the standard living and in creating a better quality of life. The purpose of this study is to identify the effects of organizational culture and learning orientation to organizational innovation and performance. The research method was quantitative analysis using SmartPLS and conducted with purposive sampling technique on embroidery and needlepoint SME owners in West Sumatera. Embroidery and needlepoint craft are the original products of West Sumatera, which is already well-known not only in the country but also it has reached to abroad. Fifty-three respondents involved in this study were located in Bukittinggi, Agam, Payakumbuh and Lima Puluh Kota. The findings showed that organizational culture and learning orientation have significant effect on organizational innovation; organizational culture and learning orientation have significant effect to organizational performance. Although the previous study showed there is a significant effect of organizational innovation to organizational performance, but in this study was not accepted.

1 INTRODUCTION

The background of the study lies on how owners accomplished organizational innovation and organizational performance. It is concerned on the behavior that will enable firms to achieve organizational innovation and lead to organizational performance. This study focused on embroidery and needlepoint Small and Medium Enterprise (SME) owners.

Embroidery and needlepoint, the art of forming decorative designs with hand or machine needlework, has been around nearly as long as clothing itself. As a country full with variety of ethnic and races, each of embroidery designs, patterns, themes and techniques contribute greatly to the richness of designs. The traditional touch in every product has made each of them a masterpiece Sumatera possesses the greatest abundance of embroidery and the widest range of style (Ministry of trade of the Republic of Indonesia, 2008).

West Sumatera as well known as Minangkabau traditional motif has very attractive and beautiful design taken from the Chinese art embroidered in red, yellow, green or black. The colors symbolize

the three territories, namely Tanah Datar, Agam and Lima Puluh Kota. The embroidered textile is usually used for the customary dresses (Pakaian Adat) and it is also used for decoration of bridal podium.

As a state that produced embroidery products, SMEs should innovative to create the products based on the culture of organization and the method of SMEs learning orientation. These things will lead the organization to gain organizational performance.

Research questions are developed to obtain the appropriate information that is required to fulfil the research objectives. This research study attempts to answer the following questions:

- Does SME's organizational culture play a role in improving its organizational innovation?
- Does SME's organizational culture play a role in improving its organizational performance?
- Does SME's learning orientation have any influence to organizational innovation?
- Does SME's learning orientation have any influence to organizational performance?
- What is the association between SME's organizational innovation and organizational performance?

2 LITERATURE REVIEW

2.1 Organizational Culture

Organizational culture plays an important role in shaping values behavior of organizational members. According to Deal and Kennedy (1982) performance improvement in an organization is associated with deliberate effort by management towards developing organizational culture.

2.2 Learning Orientation

Organizational learning has been considered pivotal for sustainable competitive advantage (Dickson, 1996; Fiol and Lyles, 1985; Garvin, 1993; Levitt and March, 1988; Lukas, 1996; Stata, 1992). There are two types of organizational learning: single-loop and double-loop learning (Senge, 1990). Most of organizational learning belongs to single-loop learning, in which individuals, groups, or organizations modify their actions through tactical adjustments. Double-loop learning is higher-order learning, capable of shifting more fundamental strategies by questioning old values, assumptions, and policies (Baker and Sinkula, 1999; Dickson, 1996).

Organizational learning has been treated and measured as a process (i.e., behaviors) or a culture (i.e., values and beliefs). From a process perspective, Bennett (1998) proposed a scale with five elements for non-profits: (a) an external approach, which involves determining donors' needs and competitors' skills, benchmarking, and fundraising strategies; (b) innovation and change; (c) teamwork and common values; (d) obtaining and disseminating information, and (e) training.

For a cultural approach, organizational learning is clearly linked to learning orientation in order to indirectly measure organizational learning. Sinkula et al. (Sinkula, Baker and Noordevier, 1997) defined learning orientation as "a set of organizational knowledge-questioning values that influence a firm's propensity to value double-loop learning," and proposed three values of learning orientation: (a) commitment to learning, (b) open-mindedness, and (c) shared vision. Commitment to learning fosters investments in education and training (Norman, 1985). Shared vision enables learning to translate into action. Without shared vision, many creative ideas would not be implemented for the lack of a common direction

(Hult, 1998). Open-mindedness is related to unlearning (Sinkula et al., 1997). Unless they are open-minded, organizations are less likely to question the familiar ways of thinking and acting.

Although learning orientation has been confirmed to be closely related to innovation in for-profits, it is still considered to be a relatively new idea in non-profits (Garrido and Camarero, 2010). However, non-profits need to be learning oriented in order to innovate and survive, given the changing environmental conditions and the importance of developing the human resource capacity (Betts and Holden, 2003; Garrido and Camarero, 2010; Murray and Carter, 2005).

The theory applied in the study of the effect of learning orientation on organizational innovation is organizational learning theory. An organization can adapt as long as they can learn. Consequently, the fact that learning is primarily concerned with sustainable organizational issues and the use of knowledge in an uncertain competitive atmosphere (Morgan and Strong, 1997), has initiated a more convincing concept stating that effective learning orientation deals with innovation. Indeed, Hurley and Hult (1998) propose evidence to show that higher level of innovation is associated with the development of culture of learning.

2.3 Organizational Innovation

Innovation has been conceptualized diversely, according to the different views on various issues (e.g., to consider it broadly or narrowly, to regard it as culture or behaviors, how to define the innovation unit, the innovation target, and the speed of change). Regarding this, Damanpour (1991) states that innovation has been conceptualized as lying between "diffusion" and "adoption" (Kimberly, 1981) and between "innovating" and "innovativeness" (Van de Ven & Rogers, 1988). Although a certain overlap between these concepts may exist, this study focuses primarily on the adoption of innovation. Innovation can be a new product or service, a new production process technology, a new structure or administrative system, or a new plan or program pertaining to organizational members. Since the end product of human service organizations is a service or program, this study defines innovation as "adopting new ideas and actions generated or developed inside or outside the organization into services, programs, and processes."

Previous studies have attempted to distinguish types of innovation in order to understand behaviors of organizations and examine the determinants of

innovation (Downs and Mohr, 1976; Knight, 1967; Rowe and Boise, 1974). Among numerous typologies of innovation, three have gained the most attention: administrative vs. technical, product vs. process, and radical vs. incremental (Damanpour, 1991). The distinction between administrative and technical innovation focuses on the decision-making process. Administrative innovations are related to organizational structure and administrative processes, whereas technical innovations are connected to products, services, and production process technology (Damanpour and Evan, 1984).

Radical and incremental innovation is classified according to the degrees of change. Non-routine innovations that create fundamental changes are radical, whereas innovations creating tactical and instrumental changes are incremental (Dewar and Dutton, 1986; Ettl, Bridges and O'keefe, 1984). Product and process innovation is distinct according to the stages of business development (Utterback and Abernathy, 1975). While product innovations are new products or services introduced to meet market needs, process innovations are new elements introduced into an organization's production or service operations (e.g., input materials, task specifications, work- and information-flow mechanisms, and equipment used to produce a product or render a service; Knight, 1967; Utterback and Abernathy, 1975).

The study follows the distinction between process and product innovation, which involves not only the innovations in end products but also the innovations occurring in the whole process of organizations (i.e., organizational structure and administrative system). This classification entails the systems approach. A small but growing number of studies have conceptualized innovation from a systems perspective, which has been judged to enable a better understanding of innovation drivers and outcome (Kempt, Folkerlinga, De Jong, & Wubben, 2003). Community Innovation Surveys (CIS; Organization for Economic Cooperation and Development [OECD], 2006), designed to give information on the innovativeness of different sectors and regions, are representative studies based on the system oriented framework. CIS measures innovativeness with four factors: (a) innovation input, (b) innovation process, (c) innovation output, and (d) innovation outcome. Similarly, Kempt et al. (2003) introduced complex systems innovation model (CSIM), combining the process approach and the systems approach. CSIM conceptualizes innovation with three factors: (a) innovation intensity, (b) innovation process, and (c) innovation output.

This study measures innovation with two dimensions of process innovation and output innovation from a systems perspective. Input innovation, which means the investment in innovation, is not included in the study because the focus is only on the innovations implemented. Process innovations are adopted changes in organizational structure and administrative process, and output innovations are new services, programs, and service target and service delivery systems to meet external market needs.

2.4 Organizational Performance

Olosola (2011) explained the performance concept as an ability to assess the level of success of a business organization is it small or big. SMEs can be evaluated in terms of employment level, firm size, strength in working capital as well as its profitability. According to Shariff, Peous and Ali (2010) measures of performance can be seen from an objective perspective that is more about the financial assessment to organizational performance such as return on equity, return on assets and sales growth. Minai and Lucky (2011) further opined that performance in small firms is viewed from two perspectives: the monetary (financial) and the non-monetary (non-financial) measures.

Some studies have some inclination in using financial performance measures as an indicator of overall firm performance (Murphy, Trailer & Hills 1996). On the other hand, other studies prefer the subjective measure performance. For example, Ittner and Lacker (2003) opined that subjective measures help owner/managers to determine the level of success or otherwise of their respective SMEs, while Davood and Morteza (2012) viewed performance as the ability of a firm to create acceptable outcome and actions. Hence, firm performance is a central issue in business activities that need adequate planning and commitment. Trkman and McCormack (2009) asserted that measuring performance is important for all firms because it helps the organization to attain the level of organizational success or failure and also serve as a yardstick for achieving significant improvement in the overall organizational activities.

The concept of performance describes how individuals or groups reach a conclusion to attain an aim. Performance is a concept which is shown by organization's prominent employees while fulfilling their tasks. This is why organizations' success is directly proportionate to their employees' performance (Benligiray, 2004). Organizational

performance is a description of level of fulfilled task of organization's aim or target according to obtained output/ conclusion at the end of a business period (Yıldız, 2010).

Organizational performance can be scaled only by subjective method or only by objective method. It can also be seen in the literature that both subjective and objective methods are used together to avoid short-comings of each method. It has become evident that while profitability, sales and market share are the most used criteria in subjective method, ROA and ROE are the most used ones in objective method (Yıldız and Karakaş, 2012). Although various measurement methods of business performance has been developed by scholars and practitioners, it can't be said that there is always a valid method.

Based on previous studies, we can develop some hypotheses:

H1: organizational culture has influence on organizational innovation

H2: organizational culture has influence on organizational performance

H3: learning orientation has influence on organizational innovation

H4: learning orientation has influence on organizational performance

H5: organizational innovation has influence on organizational performance

3 METHODS

3.1 Sample and Data Collection

According to the sampling technique applied by Hair et. al (2014), target of the survey is fifty three SME owners of embroidery and needlepoint in West Sumatera that were located in Bukittinggi, Agam, Payakumbuh and Lima Puluh Kota. The unit of analysis is the organization. To ensure that the collected data accurately represent the organization, all the owners who have to sell the products directly to the market were asked to answer the survey. A questionnaire was used for data collection. Questionnaires were directly distributed to the owners.

3.2 Measures

Organizational culture measurement was adopted from Al-Swidi and Mahmoud (2012) and replicated

by Shehu and Mahmood (2014). There are 17 items that explained organizational culture. The items included employees understanding of what need to completed, good mission that gives direction and meaning, systemic organization of jobs, capabilities are treated as a source of competitive values, changes in marketing practices, customers decisions are very important, excitement and motivation for employees are the result of vision development, acceptable code of conduct, emphasis on team work, clear set of values, employee involvement in work, respond to competitor actions, information sharing, invention and risk taking encouraged, disappointment as a chance for learning and improvement, encourage direct contact with customers.

Learning Orientation scale by Sinkula et al. (1997) was used to measure learning orientation. This questionnaire was also distributed for the study of Choi (2014). This continuous measure includes 11 questions that explained three factors: commitment to learning, shared vision and open-mindedness. Each question reflects respondents' assessment of learning oriented culture for the organization they are owned. Respondents rate each statement on a Likert-type scale ranging from 1 to 5, with 1 indicating *strongly disagree* and 5 indicating *strongly agree*.

In order to measure the frequency of organizational innovation, we replicated an organizational innovation scale based on the study of Widiartanto and Suhadak (2013). Organizational innovation scale reflects the respondents' assessment for how the innovation has been implemented at the organization they are owned. There are six items that distributed to explain this variable: improving working practices, training employees routinely, creating new products, creating modification of products, developing new ideas, encouraging initiatives. Organizational innovation is a Likert-type scale with score ranging from 1 to 5, with 1 indicating *strongly disagree* and 5 indicating *strongly agree*.

Organizational performance was measured by four items based on Brewer and Selden's (2000) scale. Items related to service quality, customer satisfaction, as well as commitment to cost reduction were included. The measurement is also adapted by Im, Campbell and Jeong (2016). Organizational performance is using a Likert-type scale with score ranging from 1 to 5, with 1 indicating *strongly disagree* and 5 indicating *strongly agree*.

3.3 Data Analysis

After measurement model was verified, the theoretical model was tested using structural equation modelling (SEM) with Partial Least Square software.

4 RESULTS AND DISCUSSION

4.1 Collinearity of Indicators

In a formative measurement model, the problem of indicator collinearity may occur if the indicators are highly correlated to each other (Wong, 2013). The formative indicators of a latent variable are set as independent variables, with the indicator of another latent variable as dependent variable.

Table 1: Collinearity of indicators.

Model	Collinearity Statistics	
	Tolerance	VIF
Organizational culture	.424	2.360
Organizational innovation	.288	3.473
Learning orientation	.326	3.071

a. Dependent variable: Organizational performance

As shown in Table 1, all of the indicators' VIF values are lower than 5 and their Tolerance values are higher than 0.2, so there is no collinearity problem.

4.2 Reliability of Variables

Reliability test is done to find out the extent of the measurement tools have the accuracy and precision of measurement that are consistent over time. Reliability instrument on this research is determined from the value of composite reliability for each block of indicators on reflective invalid constructs. Rule of thumb value for cronbach's alpha and composite reliability must be greater than 0.7, 0.6 value though still acceptable. Table 2. Will show us about the value of composite reliability of variables in this study.

Table 2: Reliability of variables.

	AVE Reestimation 1	AVE Reestimation 2	Composite Reliability
Commitment to learning (Learning Orientation)	0.723968	0.724129	0.912869
Organizational Culture	0.586465	0.578333	0.888401
Open-Mindedness (Learning Orientation)	0.541055	0.539655	0.775063
Organizational Innovation	0.566473	0.633251	0.872990
Organizational Performance	0.717285	0.717234	0.883629
Shared Vision (Learning Orientation)	0.519763	0.520314	0.808037

4.3 Hypotheses testing

The hypothesis H1, H2, H3 and H4 are accepted significantly as in Table 3, all values were above 1.96, indicating there were had significant effects in each hypothesis. The relationship between variables showed that influence of learning orientation significantly on organizational innovation with value of statistical value $2.896793 > 1.96$. The effect of learning orientation with respect to organizational performance is significantly influence with statistical value $7.271449 > 1.96$. Organizational innovation is significantly influenced by organizational culture with value of $5.065154 > 1.96$. Organizational Culture has significantly influence organizational performance by table showed statistical value by $2.921830 > 1.96$. The influence of organizational innovation to organizational performance was not significant by statistical value for $1.784150 < 1.96$.

Table 3: Hypotheses testing.

	T Statistics (O/STERR)
Learning Orientation -> Organizational Innovation	2.896792
Learning Orientation -> Organizational Performance	7.271449
Organizational Culture-> Organizational Innovation	5.065154
Organizational Culture -> Organizational Performance	2.921830
Organizational Innovation-> Organizational Performance	1.784150

5 CONCLUSIONS

This study examined the influence of organizational culture, learning orientation, organizational and organizational performance on embroidery and needlepoint SME's in West Sumatera, Indonesia. This research uses fifty-three respondents questionnaires and SEM/PLS. Four of five hypotheses were significant influences and the rest that is one hypothesis was insignificant. It means, the organizational culture and learning orientation give impact on the organizational innovation and organizational performance. But, the organizational innovation is not really affects organizational performance on SME.

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