International Business Management 10 (9): 1599-1609, 2016
ISSN: 1993-5250

Improving Organizational Innovation by Human Capital, Knowledge Sharing and Organizational Learning Base

[1]Kesi Widjajanti and [2]Widodo
[1]Department of Management, Faculty of Economics, University Semarang (USM),
[2]Department of Management, Faculty of Economics,
University Islam Sultan Agung (UNISSULA), Semarang, Indonesia

Abstract: This study aims to analyze the correlation of organizational learning, knowledge sharing and human capital and its effect on organizational innovation then, create a development model for organizational innovation-based on human capital, knowledge sharing and organizational learning for SMEs in semarang. The population of this study is all leaders of SMEs in Semarang City with a number of 150 respondents. The sampling technique used is purposive sampling. To analyze the data in this study, it is used the Structural Equation Model (SEM) of AMOS 5.0 software package. The findings of this study conclude that to improve organizational innovation based on human capital, knowledge sharing and organizational learning is through: first, organizational innovation must be built by human capital; second, organizational innovation must be built by a knowledge sharing and third, organizational innovation must be built by organizational learning.

Key words: Organization, semrarang, mangement humon, capital, base

INTRODUCTION

Organizational innovation is not something great and luxurious, a solution that solves a big problem with an extraordinary way and drains a lot of resources. Innovation is not the result of a super team that only contains those brilliant people within organization. Organizational innovation does not always involve the super-sophisticated technology. Organizational innovation is more to a solution to the real problems faced every day. This is a process that demands everyone without exception to participate.

The study result by Hsu *et al*. (2007) shows that small industries are often unable to achieve organizational Innovativeness. An organization with highly skilled human resources and knowledgeable human capital has a higher and more likely to create knowledge, make a right decision and has a better innovation (Hitt, 2006). Human capital is a human characteristic that is determined by the knowledge that is used to create value for the organization (Collins and Clark, 2003).

The ability to exploit knowledge is an important component for innovation capability. It is related to knowledge prior to providing the ability to recognize the value of new information, absorb and apply sharing knowledge about customer needs, market changes, competitor reactions and evaluation of the technology in order to be superior than competitors (Liao, 2006). Sharing knowledge is a behavior owned to spread knowledge with other members in organization. How to share knowledge to createvalue addedis a primary focus of organization (Liebowitz and Megbolugbe, 2005).

Therefore, organizational learning is not just the total amount of knowledgepossessed by the individual. Organizational learning emphasizes the patterns of interaction among human resources to achieve meaningful goals. View of the knowledge-based organization is initiated by individuals and companies to be superior in their ability to integrate knowledge across individuals (Kogut and Zander, 1996). The researchers explain that there has been no systematic effort to develop a valid measure of organizational learning construct (Hsu *et al*., 2007). However, the problem faced by of SMEs is the lack of innovation and adoption of new technologies. As a result, their products are relatively monotonous and access to potential markets is still low. Based onresearchgapand SMEs business phenomenon, this article examineshow to improve organizational innovation with human capital, knowledge sharing and organizational learning base.

Literature review

Organizational learning: Kang *et al*. (2008) describe the learning process as an effect of adjustment that affect the relationship between systems and its external environment. The learning process makes people can act

Corresponding Author: Kesi Widjajanti, Department of Management, Faculty of Economics, University Semarang (USM), Semarang, Indonesia

through a variety of ways according to the surrounding environment. Instead, the action of the actor itself that allows for learning.

Song (2008) concludes that the learning process is mainly oriented to cognitive and behavioral dimensions that exist within the context of culture, strategy, structure and environment. Culture as beliefs, norms and ideologies is mutually shared actions that affect the action of the organization. Strategy is described as the attitude of the organization in the face of market and also as the goals and objectives that provide momentum and direction of organizational action. Structure refers to the design of the organization and there are some elements that are important in determining the examination of structure, i.e., decision-making, centralization and decentralization, simple and complex, formal and non-formal, etc. Then, Environment is defined as internal and external side and it devotes attention to the tension among constancy (constant state or remain unchanged), changes and the stress intensity range.

Thus, the strategic learning process is related to the insight (an effort to find new things) and future outlook. Nonaka and Takeuchi (1995) impute between the creation of knowledge and sustainable innovation and also between constant innovation and mutualism side. Both of these experts explain that the creation of the knowledge is a dynamic interactive process that aligns with the course of time that, in time, will produce a second spiral of knowledge. The first spiral of knowledge includes the socialization, externalization, combination and internalization while the second one incorporates knowledge levels of individuals, groups and organizations. Furthermore, the first and second spiral of knowledge is epistemological and ontological.

The study, by Pitt and Kannemeyer (2000) suggests that there are six critical dimensions of organizational learning they are organizational structure, decision-making process, cross-functional teams, reward systems, corporate management and culture development. According to Hsu *et al.* (2007), the organizational learning includes support of information and communication technologies, culture, measurement systems, resources, structure design and leadership. According to Liao (2006), it includes commitment, shared vision, open-mindedness, communication andtrust.

Knowledge sharing: Knowledge sharing is the interaction and communication between individuals and business units (Reed *et al.*, 2009). According to Smalla and Sageb (2006) the success of knowledge sharingdepends on the quantity and quality of interaction among employees and the willingness and ability to use knowledge. The organization should encourage employees and organizational goals and then define those goals into technical and promotion of employees. The existing knowledge within the individual is difficult to verbalize, therefore, it needs to be articulated and expressed implicitly.

Based on the explanation, it can be assumed that knowledge sharingis the behavior of an individual to disseminate the knowledge with other members within an organization so that it can createvalueadded for the company. The emphasis on knowledge triggers the development of the concept of Knowledge Management (KM). It is assumed that knowledge is important input in the production of KM process to foster company's ability to use and combine a variety of knowledge resources that can transformintangibleresources into a product or process innovations (Grant, 1991). The study by Hsu *et al.* (2007) shows that 80% of respondents claim that knowledge is a strategic asset for business opportunities and 78% respondents state that a businesses fail because it cannot exploit the existing knowledge within the organization.

A group of people who are highly motivated and skilled is a competitive advantage because it represents a specific company resource that is important, rare and difficult to imitate. Companies with highly skilled and knowledgeable human resources have higher human capital and are more likely to create knowledge, make the right decisions and have better innovation of technology (Hitt, 2006).

The finding of the study by Hsu *et al.* (2007) shows that organizational learning is associated with the development of new knowledge and it is very important for innovation capability and organizational performance. Edvinsson and Sullivan (1996) states that without the support of corporate resources, human resources will not be able to do much with their ideas. Nonaka and Takeuchi (1995) describes thehuman capitalonly is not profitable for the company, if there is no such mechanism for the human resources to share their knowledge. Therefore, organizational learning is not merely the total sum of the individual knowledge (Brown and Duguid, 1991). Organizational learning emphasizes the interaction pattern among HR to achieve a meaningful goal. View of the knowledge-based organization is initiated by individuals and companies to be superior in their ability to integrate knowledge across individuals (Kogut and Zander, 1996). Therefore, the first hypothesis proposed in this study is:

- H_1; the higher the organizational learning is the higher the intensity of knowledge sharing will be

Human capital: Humans as businesses actor have a productive, skillful, creative, discipline and professional

researacher ethic as well as have the ability to utilize, develop and master science, technology and management. A human quality as resources in various areas of national life is important for nations. In real life, humans play a major role to foster productivity and advanced production equipment. It requires skilled/expert Human Resources (HR) with the expectation that their performance can improve the quality of life for both humans and life itself. The success of an organization is strongly influenced by the performance of individual employees. Each organization or company is always trying to improvehuman capital.

Human capitalis a human characteristic that is determined by the knowledge that is used to create value for the organization (Collins and Clark, 2003). The study by Pennings *et al*. (1998) explains that human capital management should pay attention to sources of knowledge and the idea of that knowledge. The idea of knowledge is intended as a process of skills development and institutionalization of knowledge, especially with regard to the market.

Human capitalis constantly changing (dynamic) because of internal and external factors. External factors are related to the mandatory recruitment of human resources to replace HR resigned from the organization and or mutations. While the internal one is the quality ofhuman capitalitself (Subramaniam and Youndt, 2005). HR ability can be less dynamic; therefore organization must improve it through a specific training program. The study by Hsu *et al*. (2007) and Song (2008) state that the improvement of the commitment to consensus will enhancehuman capital.

Organizational learning requires HR to use the time in the organization to pursue knowledge outside the scope of their research. If the organization does not encourage the development of knowledge, human resources will not be motivated to do a learning activity (Calantone *et al*., 2002). With the efforts and experiences, organizations can build a continuity of interaction that recognize the value of the potential opportunities and choose what elements to be combined and then facilitate the exchange of knowledge so as to improve thehuman capital (Lane and Lubatkin, 1998). Therefore, the second hypothesis proposed in this study is:

- H_2; the higher the intensity of sharing knowledge is the higher the human capital will be

Organizational learning is applied as a strategy of self-control, where it can help the skills and capabilities of human resources, instead of having knowledge to improve performance. The finding of the study shows that learning orientation may encourage human resource to research harder because, they are expected to enjoy their research so that they can achieve high performance (Sujan *et al*., 1994). Hsu *et al*. (2007) study show that the organizational learning can improve human capital. Hence, the third hypothesis proposed in this study is:

- H_3; the higher the organizational learning is, the higher the human capital will be

Organizational innovation: Varadarajan and Jayachandran (1999) explains that the concept of organizational innovation is related to a row of beliefs and ways of working that affect an organization's views on how innovation and change must be addressed. While Amabile *et al*. (1996) says that organizational innovation is a successful implementation of creative idea within company and organizational mechanisms to adapt with dynamic environment. Therefore, an organization is required to create assessment, find new idea and offer innovative products. Innovation is a way to continuously build and develop an organization that can be achieved through the introduction of new technologies and new applications in products and services new markets and new forms of organization. The integration of those various aspects, in turn, will construct the innovation arena.

Some previous studies show that organizational innovation is the development and the use of new ideas or behavior that correspond to new products, services, market and administration (Damanpour, 1996). This study uses the dimensions of organizational innovation that refers to the study by Wang and Ahmed (2004) which includes: product innovation which is a product that is introduced to the market punctually, mrket innovation, it is related to the targeted market. Process innovations, it is related to the method, new management approaches and new technologies that can be used to improve production and management processes. Behavioral innovation, it is associated with innovative culture. Strategic innovation, it is associated with the ability of organizations to manage ambitions.

The study by Hsu *et al*. (2007) concludes that sharing knowledge is the behavior of an individual to disseminate the knowledge with other members within organization so that it can create organizational innovation. Therefore, the fourth hypothesis proposed in this study is:

- H_4; the higher the intensity of sharing knowledge is the higher the organizational innovation will be

The main dilemma faced by the company is how to encourage HR to contribute their knowledge to benefit the organization. People can be reluctant to share knowledge for fear of losing ownership, an

important position or superiority. Therefore, in the interest of organization, managers should emphasize the development of capabilities and commitment (willingness and desire to contribute to the success of the company). Furthermore, human capital must involve human resource competencies (e.g., skills, knowledgeand capabilities) and commitment (e.g., the willingness to dedicate life and research for the company). It is hyphotesized that a group of committed and highly skilled people (human capital) will be able to build and utilize company resources in a way of creating companies innovation (Hitt, 2006). Therefore, the fifth hypothesis proposed in this study is:

- H_5; the higher the human capital is the higher the organizational innovation will be

Organizational innovation implies the creation of ideas, products or processes. It is clear that the organization that commits to the organizational learning can achieve high organizational in novativeness because organizational learning is more likely to create a sustainability that allows creating and applying new knowledge systematically. Therefore, the researchers identify organizational learning as the most important factor to achieve sustainable competitive advantage (Teece *et al*., 1997). Hence, the sixth hypothesis proposed in this study is:

- H_6; the higherthe organizational learning is the higher the organizational innovation will be

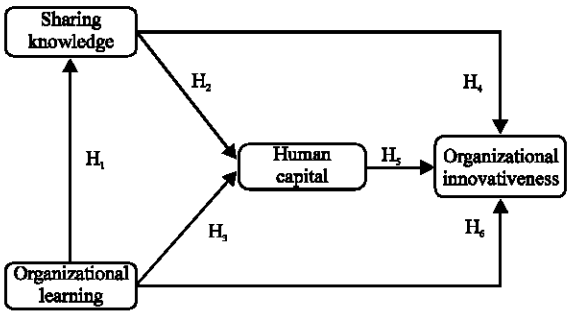

Fig. 1: Research empirical model

Empirical model: Based on a comprehensive and depth literature review that has been described above, the empirical model of this study is figure out in Fig. 1.

MATERIALS AND METHODS

Research variables: The variables of this study includehuman capital, knowledge sharing, organizational learning and organizational innovation. The operational definitions and indicators are explained in the following Table 1.

Respondent: The population of this study is all leaders of SMEs in semarang city. Based on data from the assisted SMEs, department of cooperatives and SMEs of Semarang in 2012, the total number is 409. With the model estimation by using Maximum Likelihood (ML) with the sample size of 100-200 (Hair *et al*., 1992), so that, the number of sample in this study is 150 respondents. The sample method is "purposive sampling" by considering the characteristics of population, namely. Operational experience of at least 5 year. Representing SMEs business type.

Analysis technique: To analyze the data in this study, it is used the Structural Equation Model (SEM) of AMOS 5.0 software package. This model is a set of statistical techniques that allow testing of a complex correlation. The excellence of SEM application in the research management is its ability to confirm the dimensions of a concept or factor and to measure the correlation that theoretically exist.

Table 1: Variables and indicators

Variables	Indicator	Source
Organizational learning		
Learning process as an effect of adjustment	Learn new things	Kang *et al*. (2008)
an effect of adjustment that affect the correlation	Feedback	
of a system and environment	Sustainable improvement	
Knowledge sharing		
The interaction and communication between	The quantity of interaction and communication	Reed *et al*. (2009)
individuals and business units	The quality of interaction and communication	
	Interaction encouragement	
	The willingness to use knowledge	
Human capital		
It is a HR characteristic that is determined by	Skills change, creativity	Collin and Clark (2003)
the knowledge that is used to create value	New ideas	
for the organization	Will to be the best	
Organizational innovation		
Beliefs and ways of working that affect	Market changes, changes in the new service	Varadarajan and Jayachandran (1999)
an organization's views on how innovation	Changes in new products	
and change should be managed	The new management changes	

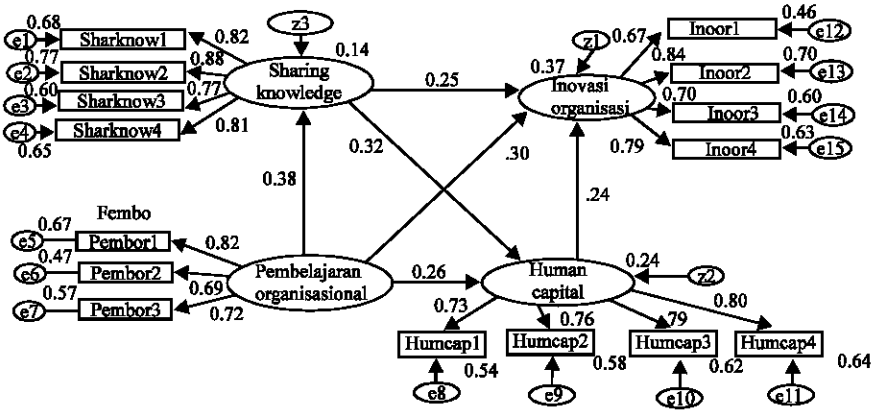

Fig. 2: The full model of organizational innovation (UJI model; χ^2 = 78.544, probability = 0.648, CMIN/DF = 0.935, GFI = 0.929, AGFI = 0.899, TLI = 1.007, CFI = 1.000, RMSEA = 0.000)

Table 2: Standardized regression weight (loading factor) organizational innovation

Factors	Std.estimate	SE	CR
Sharing_knowledg <-org._ learning	0.377	0.122	3.719
Human_capital <- org. _learning	0.260	0.109	2.425
Human_capital <--- knowledge_sharing	0.324	0.087	3.162
Org._innovation <-- human_capital	0.238	0.083	2.276
Org._innovation <- nowledge_sharing	0.248	0.068	2.441
Org. innovation <- org. learning	0.297	0.086	2.755

Table 3: Fitness tests index structural equation organizational innovation

Goodness-of-fit-index	Cut-off-value	Result	Information
X-chi-square	Expected to be small	75.544	Good
Probability	≥0.05	0.648	Good
RMSEA	≤0.08	0.000	Good
GFI	≥0.90	0.929	Good
AGFI	≥0.90	0.899	Good
CMIN/DF	≤2:00	0.935	Marginal
TLI	≥0.95	1.007	Good
CFI	≥0.94	1.000	Good

RESULTS AND DISCUSSION

After the model is analyzed through confirmatory factor analysis, then each indicator in the fit model can be used to define latent constructs, so that the full model of Structural Equation Model (SEM) can be analyzed. The results of the analysis can be figure out in Fig. 2 and Table 2.

Then, the test model shows that this model meets or fits the data used in the study. This is indicated by chi-square, probability, CMIN/DF and TLI that is within the range of expected valuesdespite despite GFI and AGFI marginally acceptable, this is clearly shown in Table 3.

Hypotheses testing: Based on calculations with confirmatory analysis and structural equation model test of organizational innovation model as presented in Table 4, the model is acceptable. Then, based on this fit model, the hypotheses test proposed in this study is as the following.

The effect of organizational learning on knowledge sharing: The H_1 is proposed in this study is that the higher the organizational learning is the higher the intensity of knowledge sharing will be. The variables of organizational learning have been constructed by some indicators such as; for the last three years we find new things and for that period we are able to implement feedback coming from customers and we continuously encourage development. While, the indicators of knowledge sharing for the last 3 year are the same as the indicators of the previous ones, we know new things, we are able to implement feedback coming from customers and continuously encourage development.

The estimated parameter between organizational learning and knowledge sharing shows that it results significant with value of CR = 3.719 or it can be said that CR≥±2.00 with the significant value of 0.05 (5%). Along with this condition, it can be inferred that the first hypothesis is supported. This means that the higher the organizational learning is the higher the intensity of knowledge sharing will be. The result also indicates that to improve knowledge sharing, it needs to be constructed by human capital.

Organizational learning has correlation to the development of gaining new knowledge. This term needs to be taken into account due to innovative ability and organizational research. Without any support from company resources, the human resources will not do much thing with their ideas.

The result of this study is in line with the study conducted by Kogut and Zander (1996) who point out that organizational learning emphasizes interaction pattern among human resources to reach what is purposed. This means that the view of knowledge-based organization is started by individuals so that the company will be superior to integrate their knowledge one to another.

The effect of knowledge sharing on human capital: The H_2 is proposed in this study is that the higher the intensity of knowledge sharing is the higher the human capital will be. The variables of knowledge sharing are constructed by indicators such as: our business has good quantity of interaction and communication among employees, our business has good quality of interaction and communication among employees, our business gives adequate interactional support among employees and our employees have the will to implement their knowledge into their research. While the human capitals are constructed by indicators such as during the research, we experience the improvement of skill change; during the research we experience of having creativity and developed ideas and reaching the best of our research.

The estimated parameter between knowledge sharing and human capital shows that it gives significant result that is reflected by the CR value of 3.162 or it can be said that the CR≥±2.00 with the significant level of 0.05 (5%). By this condition in one word, this means that the second hypothesis is supported. In another hand, this also means that the higher the intensity of knowledge sharing is the higher the human capital will be. In addition, the result indicates that to improve human capital, it needs to be constructed by knowledge sharing.

The effect of organizational learning on human capital: The $H_3$is proposed in this study is that the higher the intensity of organizational learning is the higher the human capital will be. The variables of organizational learning have been constructed by some indicators for the last 3 year such as we find new things and for that period we are able to implement feedback coming from customers and we continuously encourage development. While, the human capitals are constructed by indicators as follows: during the reseach, we experience the improvement of skill change during the reseach, we experience of having creativity and developed ideas and reaching the best of our reseach.

The estimated parameter between organizational learning and human capital shows that it results significant value that is reflected by the CR value of 2.425 or it can be said that the CR≥±2.00 with the significant level of 0.05 (5%). By this condition, in one word, this means that the third hypothesis is supported. In another word, this also means that the higher the intensity of organizational learning is, the higher the human capital will be. In addition, the result indicates that to improve human capital, it needs to be constructed by organizational learning.

Organizational learning prosecutes human resources to use their time in the organization to gain knowledge outside of their research field. When the organization does not support knowledge development, the human resources will not get motivated to learn.

The result of this is in line with the study of Lane and Lubatkin (1998) who point out that by efforts and experiences from the organization, it can encourage interactional sustainability which leads to the value of potential chance and select which element should be gathered and then facilitate knowledge exchange so that the human capital can be improved.

The effect of knowledge sharing on organizational innovation: The H_4 is proposed in this study is that the higher the intensity of knowledge sharing is, the higher the organizational innovation will be. The variables of knowledge sharing are constructed by indicators such as: our business has good quantity of interaction and communication among employees; our business has good quality of interaction and communication among employees; our business gives adequate interactional support among employees and our employees have the will to implement their knowledge into their research. While, the innovations of organization are constructed by the indicators such as our business responds to new services, the change of new product and management.

The estimated parameter between knowledge sharing and organizational innovation shows that it results significant that is reflected by the CR value of 2.441 or it can be said that the CR ≥±2.00 with the significant level of 0.05 (5%). By this condition, in one word, this means that the fourth hypothesis is supported. In another word, this also means that the higher the intensity of knowledge sharing is the higher the organizational innovation will be. In addition, the result indicates that to improve the organizational innovation, it needs to be constructed by knowledge sharing.

Organizational innovation takes role as a successful implementation of creative ideas in the company and organizational mechanism to adapt with the dynamic environment. So that is why, organizations are demanded to be able to create assessment and new ideas and promote innovative products. Innovation becomes one of the ways to continuously build and develop organization which can be reached by introducing new technologies,

new applications of products and services, developing new market and introducing new forms of organization. The integration of various aspects of those innovations will lead to innovation area.

This result of the fourth hypothesis of this study is in line with the study of Hsu *et al.* (2007) who points out that knowledge sharing is a behavior of persons to spread knowledge to others within a particular organization so that it can lead to organizational innovation.

The effect of human capital on organizational innovation: The H_5 is proposed in this study is that the higher the intensity of human capital is, the higher the organizational innovation will be. The variables of human capital are constructed by indicators of during the research, we experience the improvement of skill change during the research, we experience of having creativity and developed ideas and reaching the best of our research. While, the innovations of organization are constructed by the indicators such as our business corresponds to new services, the change of new product and management.

The estimated parameter between human capital and organizational innovation shows that it results significant which is reflected by the CR value of 2.276 or it can be said that the CR≥±2.00 with the significant level of 0.05 (5%). By this condition, in one word, this means that the fifth hypothesis is supported. In another word, this also means that the higher the intensity of human capital is, the higher the organizational innovation will be. In addition, the result indicates that to improve the organizational innovation, it needs to be constructed by human capital.

The core problem faced by organization is how to encourage human resources to give contribution by implementing their knowledge due to organization's profit. Someone may not spread his knowledge because he is afraid of losing his own, important position or superiority. Due to organization's purposes a manager must emphasize the development of capability and commitment (willingness and desire to contribute for the success of the company). So that, human capital must involve the competence of human resources such as skill, knowledge and capability and also their commitment such as willingness to dedicate their life and research for the company.

The result of this study is in line with the study of Hitt (2006) who points out that a high committed and skilled people (human capital) are able to build and benefit company's human resources by creating innovation in the company.

The effect of organizational learning on organizational innovation: The H_6 is proposed in this study is that the higher the intensity of organizational learning is, the higher the organizational innovation will be. The variables of organizational learning have been constructed by some indicators for the last 3 year, we find new things and for that period we are able to implement feedback coming from customers and we continuously encourage development. While, the organizational innovation is constructed by the indicators such as our business corresponds to new services, the change of new product and management.

The estimated parameter between organizational learning and organizational innovativeness shows that it results significant which is reflected by the CR value of 2.775 or it can be said that the CR≥±2.00 with the significance level of 0.05 (5%). By this condition, in one word, this means that the sixth hypothesis is supported. In another word, this also means that the higher the intensity of organizational learning is the higher the organizational innovation will be. In addition, the result indicates that to improve the organizational innovation, it needs to be constructed by organizational learning.

Organizational learning can be exploited as a strategy of self control where it can help to encourage creativity and the ability of human resources to use their knowledge to improve research performance. The result shows that organizational learning can encourage human resources to research harder. By this effort, it is hoped that they can enjoy their research so that it can lead to their best performance.

The result of this study is in line with the study of Teece *et al.* (1997) who points out that organizational innovation implies the creation of ideas, products or new process. For sure, the organization which commits to organizational learning can lead to a high organizational innovation, this is because organizational learning tends to create a sustainability which enables to create and apply new knowledge systematically. So that, the researchers identify organizational learning as the most important factor in order to reach sustainable competitive advantage.

Direct, indirect and total effect: The analysis of direct, indirect and total effect is aimed to find out the effect of hypothesized variables. The direct effect can be defined as a coefficient of all its lines with an arrow or what-so-called track coefficient. While the indirect effect means an effect which comes due to intervening variables. In addition, the total effect can be defined as total sum of the two effects mentioned before. The test on those effects of each variable of organizational innovation model is described on Fig. 3 and Table 4.

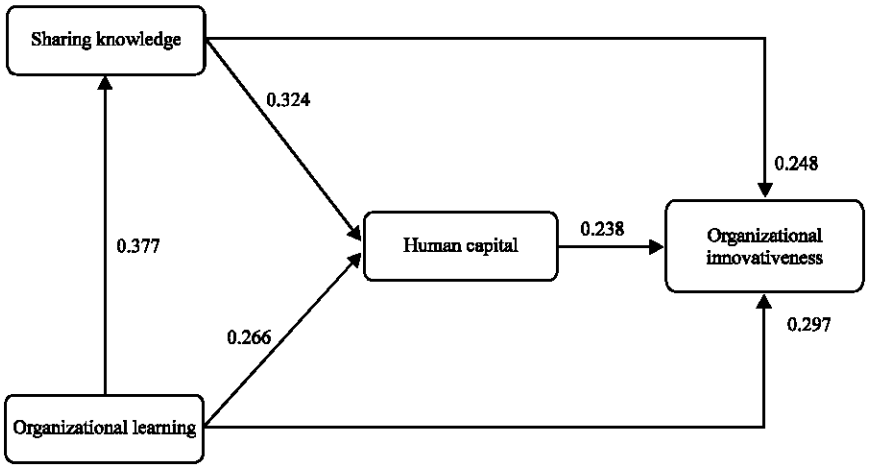

Fig. 3: The direct effect of organizational innovation model

Table 4: The direct, indirect and total effect of organizational innovation model

Variables	Effects	Organizational learning	Sharing knowledge	Human capital
Knowledge sharing	Direct	0.377	0.000	0.000
	Indirect	0.000	0.000	0.000
	Total	0.377	0.224	0.000
Human capital	Direct	0.260	0.324	0.000
	Indirect	0.122	0.000	0.000
	Total	0.382	0.324	0.000
Organizational innovation	Direct	0.297	0.248	0.238
	Indirect	0.185	0.077	0.000
	Total	0.481	0.325	0.238

Figure 3 and Table 4 of the direct, indirect and total effect of organizational innovativeness model explains that knowledge sharing variable is affected directly by organizational learning (0.377). While the indirect one which affects knowledge sharing variable does not appear in this study because the knowledge sharing variable is a variable which is at the first level of the structured linear model.

Afterwards, human capital variable is affected directly by organizational learning (0.377) and knowledge sharing (0.324). This shows that the organizational learning variable (0.377) has the highest effect on human capital. While the indirect variable which affects human capital variable is 0.122, the total effect of organizational learning variable on human capital is 0.382 and knowledge sharing is 0.324.

In addition, the organizational innovation variable is affected directly by organizational learning (0.297), knowledge sharing (0.248) and human capital (0.238). This shows that organizational learning variable (0.297) has the highest effect on the organizational innovation. While the indirect effect of organizational learning which affects the organizational innovation variable results a value of 0.185 and knowledge sharing results 0.077.

The total effect of organizational learning on the variables of organizational innovation is 0.481, knowledge sharing is 0.325 and human capital is 0.238. Therefore, it can be concluded that organizational learning variable (0.481) has the most dominant effect on the organizational innovation.

CONCLUSION

This study is purposed to test the variables that affect organizational innovation development model and its implications. In the introductory chapter, it is described theresearch gapand business phenomenon underlying this study, to be developed as the problems of this study is how to improve organizational innovation with human capital, knowledge sharing and organizational learningbase. Based on the hypotheses constructed in this study, the research problems that have been proposed can be justified by Structural Equation Model (SEM) testing. It has been drafted through this study that the correlation among variables that affects and is affected by organizational innovations consists of 5 constructs proposed and supported empirically: knowledge sharing, organizational learning, human capital and organizational innovation. All of them generate the

development of organizational innovation. First, step in developing organizational innovation based on human capital, sharing knowledge and organizational learning is that organizational innovation must be built by human capital which is affected by the increase of organizational learning. Second, step indeveloping organizational innovation based on human capital, sharing knowledge and organizational learning is that organizational innovation must be built bysharing knowledge. Third, steps in developing organizational innovation based on human capital, sharing knowledge and organizational learning is that organizational innovation must be built by human capital.

IMPLICATIONS

Theoretical implications: In the literature review, it is explained that in thedevelopment organizational innovation, the variables ofhuman capital, knowledge sharing and organizational learningto realize organizational innovationis reflected by findings as follows:

The first finding based on the test of hypothesis one, the knowledge sharing value that is affected by organizational learning is 14.2. According to Klane in 2002, the value of the effect of 10-50% is in the normal criteria. This finding support previous study developed by Kogut and Zander (1996) which concludes that organizational learning emphasizes the interaction patterns among HR to achieve the goal. View of the knowledge-based organization is initiated by individuals and companies to be superior in their ability to integrate knowledge across individuals.

The second finding of the study based on the test of hypothesis 2 and 3 support previous studies which state that the human capital is affected bysharing knowledgeand organizational learning with the value of 23.6%. According to Klane in 2002, the value of the effect of 10-50% is in the normal criteria. These findings support previous studies developed by Calantone *et al*. (2002) which conclude that organizational learning requires HR to use their time to pursue knowledge outside the scope of their research. If the organization does not encourage the development of knowledge, human resources will not be motivated to carry out learning activities with effort and experience, organizations can build a sustainable interaction that recognize the value of the potential opportunities and choose what elements to be combined and then facilitate the exchange of knowledge so as to improve thehuman capital (Lane and Lubatkin, 1998). Then, the study by Hsu *et al*. (2007) shows that the organizational learning can improve human capital.

The third finding by testing hypothesis 4, 5 and 6 that organizational innovation that is affected by human capital; knowledge sharingand organizational learning is 36.5%. According to Klane in 2002, the value of the effect of 10-50% is in the normal criteria. These findings support previous study developed by Hsu *et al*. (2007) which concludes that knowledge sharingis the behavior of a person to disseminate the knowledge with other members within organization so that it can create organizational innovation. For the interest of organization, managers should emphasize the development of capabilities and commitment (willingness and desire to contribute to the success of the company). Therefore, the human capital must involve human resource competencies (e.g., skills, knowledge and capabilities) and commitment (e.g., the willingness to dedicate life and research for the company). It is hypothesized that a group of committed and highly skilled (human capital) people will be able to build and utilize company resources in a way by creating companies innovation (Hitt, 2006). Organizational learning is the most important factor to achieve sustainable competitive advantage (Teece *et al*., 1997).

Managerial implications: Based on the findings in this study, the priority of the managerial implications of organizational innovation models are as follows; related to the knowledge sharing, it is necessary to increase the quantity and quality of interaction among employees and the willingness and ability to use knowledge. The organization should encourage employee goals and objectives of the organization and then define those goals into technical and promotion for employees. The existing knowledge within the individual is difficult to verbalize, therefore, it needs to be articulated and expressed implicitly. Organizational learning is mainly oriented to cognitive and behavioral dimensions that exist within the context of:

- Culture
- Strategy
- Structure and the environment

Culture as beliefs, norms and ideologies are mutually shared actions that affect the action of the organization. Strategy is described as the attitude of the organization in the face of market and also as the goals and objectives that provide momentum and direction of organizational action.

Structure refers to the design of the organization and there are some elements that are important in determining the examination of structure, i.e., decision-making, centralization and decentralization, simple and complex, formal and non-formal, etc.

Environment is defined as internal and external side and it devotes attention to the tension among constancy (constant state or remain unchanged), changes and the stress intensity range.

Human capital is a human characteristic that is determined by the knowledge that is used to create value of the organization. The management of human capital should pay attention to sources of knowledge and the idea of knowledge. The idea of knowledge is intended as a process of skills development and institutionalization of knowledge, especially with regard to the market. Organizational innovation can applied through the introduction of new technologies, new applications in products and services, new markets and introducing new forms of organization. The integration of those various aspects, in turn, will create the innovation arena.

LIMITATIONS

The SEM full model test results show that the model meets or fits the data used. However, there are two proper test that are marginally accepted, namely the Adjusted Goodness of Fit Index (AGFI = 0.889).

The development of organizational innovation model does not include environment variable. It is because this study focuses or starts from the phenomenon of internal conditions andresearch gap. Moreover, in developed countries, the trigger to increase organizational performance in general is dominantly started from internal conditions. However in developing countries, the external conditions (the environment) dominantly influence the improvement of organizational performance. Clearly, the environmental conditions include. Environmental complexity which is the diversity of factors and problems that exist within the organization. Environmental dynamics which is the level of changes that occur in the environment in which the organization operates. Therefore, the future research agenda needs to be conducted.

REFERENCES

Amabile, T.M., R. Conti, H. Coon, J. Lazenby and M. Herron, 1996. Assessing the work environment for creativity. Acad. Manage. J., 39: 1154-1184.

Brown, J.S. and P. Duguid, 1991. Organizational learning and communities-of-practice: Toward a unified view of working, learning and innovation. Organiz. Sci., 2: 40-57.

Calantone, R.J., S.T. Cavusgil and Y. Zhao, 2002. Learning orientation, firm innovation capability and firm performance. Ind. Market. Manage., 31: 515-524.

Collins, C.J. and K.D. Clark, 2003. Strategic human resource practices, top management team social networks and firm performance: The role of human resource practices in creating organizational competitive advantage. Acad. Manage. J., 46: 740-751.

Damanpour, F., 1996. Organizational complexity and innovation: Developing and testing multiple contingency models. Manage. Sci., 42: 693-716.

Edvinsson, L. and P. Sullivan, 1996. Developing a model for managing intellectual capital. Eur. Manage. J., 14: 356-364.

Grant, R.M., 1991. The Resource-based theory of competitive advantage: Implications for strategy formulation. California Manage. Rev., 33: 114-135.

Hair, J.F., R.E. Anderson, R.L. Tatham and W.C. Black, 1992. Multivariate Data Analysis with Readings. 3rd Edn., Macmillan Publishing Company, New York, USA.

Hitt, M.A., 2006. Direct and moderating effects of human capital on strategy and performance in professional service firms: A resource-based perspective. Acad. Manage. J., 44: 13-28.

Hsu, I.C., C.Y.Y. Lin, J.J. Lawler and S.H. Wu, 2007. Toward a model of organizational human capital development: Preliminary evidence from Taiwan. Asia Pacific Bus. Rev., 13: 251-275.

Kang, Y.J., Kim, S.E. and G.W. Chang, 2008. The impact of knowledge sharing on work performance: An empirical analysis of the public employees perceptions in South Korea. Intl. J. Public Administration, 31: 1548-1568.

Kogut, B. and U. Zander, 1996. What firms do? Coordination, identity and learning. Organ. Sci., 7: 502-518.

Lane, P.J. and M. Lubatkin, 1998. Relative absorptive capacity and interorganizational learning. Strat. Manage. J., 19: 461-477.

Liao, L.F., 2006. A learning organization perspective on knowledge-sharing behavior and firm innovation. Hum. Syst. Manage., 25: 227-236.

Liebowitz, J. and I. Megbolugbe, 2005. A set of frameworks to aid the project manager in conceptualizing and implementing knowledge management initiatives. Intl. J. Project Manage., 21: 189-198.

Nonaka, I. and H. Takeuchi, 1995. The Knowledge-Creating Company: How Japanese Companies Create the Dynamics of Innovation. 1st Edn., The Oxford University Press, New York, USA., ISBN-13: 978-0195092691, Pages: 284.

Pennings, J.M., K. Lee and A.V. Witteloostuijnml, 1998. Human capital, aocial capital and firm dissolution. Acad. Manage. J., 41: 424-440.

Pitt, L.F. and R. Kannemeyer, 2000. The role of adaptation in microenterprise development: A marketing perspective. J. Dev. Entrepreneurship, 5: 137-155.

Reed, K.K., N. Srinivasan and D.H. Doty, 2009. Adapting human and social capital to impact performance: Some empirical findings from the U.S. personal banking sector. J . Manage. Issues, 21: 36-57.

Smalla, C.S. and A.P. Sageb, 2006. Knowledge management and knowledge sharing: A review. Inf. Knowl. Syst. Manage., 5: 153-169.

Song, J.H., 2008. The effects of learning organization culture on the practices of human knowledge-creation: An empirical research study in Korea. Intl. J. Training Dev., 12: 265-281.

Subramaniam, M. and M.A. Youndt, 2005. The influence of intellectual capital on the types of innovative capabilities. Acad. Manage. J., 48: 450-463.

Sujan, H., B.A. Weitz and N. Kumar, 1994. Learning orientation, working smart and effective selling. J. Marketing, 58: 39-52.

Teece, D.J., G. Pisano and A. Shuen, 1997. Dynamic capabilities and strategic management. Strat. Manage. J., 18: 509-533.

Varadarajan, P.R. and S. Jayachandran, 1999. Marketing strategy: An assessment of the state of the field and outlook. J. Acad. Marketing Sci., 27: 120-143.

Wang, C.L. and P.K. Ahmed, 2004. The development and validation of the Organizational innovativeness construct using confirmatory factor analysis. Eur. J. Innovation Manage., 7: 303-313.