

# **The Influence of Knowledge Sharing and Absorptive Capacity on Service Innovation Performance of Islamic Banking in North Borneo Indonesia**

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## **Abstract**

This research was conducted at Islamic banking company in North Borneo, Indonesia. To improve the performance of service innovation, companies need knowledge gained from knowledge sharing and absorptive capacity activities. The study was tested with 148 employees working in Islamic banking companies in North Borneo, Indonesia. Data were collected using survey method with a questionnaire. The survey responses submitted by the respondents in this study indicate that the effect of knowledge sharing and absorptive capacity on the performance of service innovation shows significant results.

**JEL classification numbers:** D83, L89, M31

**Keywords:** knowledge sharing, absorptive capacity, and service innovation performance.

## **1 Introduction**

Along with the rapid development of economic globalization and the rapid development of information technology show level competition among companies become stronger to win the market. In order to survive, companies need to introduce new goods and services and find new ways of doing business (Indarti,

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2010). In the face of competition the company must be able to turn into an innovative company. Johannessen et al. (2001) states that innovation is the way companies have sustainable competitiveness.

The industry that is currently very high level of competition is the Islamic Banking industry (Hasan, 2011). Innovation in Islamic banking can help the service industry grow. This is in accordance with the opinion of Hollins and Shinkin (2006) who said that the performance of service innovation can help improve the company's economic growth. The increasing number of customers who consume product service innovation can be an indicator of the company's success in innovation. This makes the performance of service innovation an important issue at the moment (Levitt, 2002). Davenport and Prusak (1998) say knowledge is a key factor in the success of any company. Companies that are able to manage their knowledge well will become more innovative companies (Darroch, 2005). In other words, the company's success in innovation lies in its ability to develop knowledge. The growth of the new Islamic banking company will demand a tight competition among the banking companies, which further requires the company to innovate continuously in order to survive and sustain. Islamic banking management is required to have the ability to hear and understand customer desires (Kotler and Keller, 2009). Therefore, the emphasis on knowledge sharing and absorptive capacity between management and employees needs to be developed (Lin, 2007).

Effective knowledge sharing practices allow for reuse and regeneration of knowledge at the individual and corporate level (Chaudhry, 2005). Lin (2007) and Darroch (2005) describe the sharing of knowledge as a culture of social interaction that involves the exchange of employee knowledge, experience, and skills through all departments that ultimately enhance the company's innovation capabilities. Therefore, the emphasis on knowledge sharing between management and employees needs to be improved (Lin, 2007). The development of knowledge-sharing aspects in the banking industry requires an absorbent capacity as a company's ability to acquire and assimilate knowledge (potential for absorptive capacity) and the ability to transform and explore the (realization of the absorptive) of Zahra and George (2002). Some researchers (Liao et al., 2006; Hu et al., 2009; Wuryaningrat, 2013) provide empirical evidence that knowledge sharing, absorptive power has an effect on service innovation performance.

Based on the above explanation the capability of organizational innovation should be supported by important factors of knowledge sharing and capacity of absorption. This study aims to examine the effect of knowledge sharing and absorptive capacity on service innovation performance in Islamic banking companies in Indonesia. This study is feasible to review because there is still a lack of research on knowledge management in the banking sector compared to the production or manufacturing sectors (Hallin and Marnburg, 2006; Hu et al. 2009, Wuryaningrat, 2013).

This research was conducted in North Borneo, Indonesia. Data from Bank Indonesia in 2017 explains that the economy of North Borneo Indonesia in the

third quarter of 2017 again increased compared to the previous period. North Borneo's economy grew 6.6% in Q3 / 2017, up from 6.5% in Q2 / 2017. North Borneo's economic growth is in line with the previous projection. Spatially, North Borneo's economic growth is the highest in Borneo and is above the national economic growth which grew by 5.1%. This is supported by the growth and development of the Islamic banking sector in North Borneo in 2017. From these data it can be observed that the increase in growth of Islamic banking in North Borneo is very good, it needs to be balanced with the quality of services by Islamic banking companies in North Borneo Indonesia. Serious management of services within the Islamic Banking sector in North Borneo Indonesia is required to increase the number of customers to be maintained.

## **2 Literature review and hypothesis**

### **2.1 Influence of Knowledge Sharing on Service Innovation Performance**

The ability of organizations to produce competitive advantage cannot be separated from the role of the organization in creating the creation of knowledge that further interacts between individuals within the organization (Nonaka and Takeuchi, 1995). Liao et al. (2006) explained that to determine the focus of knowledge management companies should focus on sharing knowledge. Knowledge sharing is considered successful in generating shared intellectual capital, an increasingly important source.

Davenport and Prusak (1998) define knowledge sharing as a process of distributing the skills and experience voluntarily required throughout the organization. In line with that opinion Dalkir (2005) concluded that the sharing of knowledge in society is not only limited by providing access to data and documents alone but must occur relationships into social networks of communities that generate knowledge and who use knowledge.

When a person shares his knowledge, then there is an important thing that becomes the basis for a person to share his knowledge. It is motivation. According to Lam and Ford (2008) there are two motivations a person possesses when sharing knowledge is extrinsic motivation and intrinsic motivation.

Previous research has focused more on the impact of knowledge management in supporting, enhancing innovation and innovating processes in different business functions (Hallin and Marnburg, 2007). Erika and Leigh (1997) that knowledge sharing activities of the team have resulted in a more coordinated team performance. Knowledge sharing can assist employees in disseminating good and relevant information to their fellow employees.

Based on the above statement can be concluded that knowledge sharing activities can improve the performance of service innovation in the company. This opinion is reinforced by research conducted by Lin (2007) that knowledge sharing positively affects the manufacturing industry's innovation capability. More specifically in the context of the service industry, Monica Hu et al. (2009) proved

that knowledge sharing activities positively affect the performance of service innovation in the hospitality sector.

Based on the description can be drawn the first hypothesis that is:

H1: *Knowledge sharing positively affects the performance of service innovation.*

## **2.2 Effect of Absorptive Capacity on service innovation performance**

Cohen and Levinthal (1990) define absorptive capacity as an organizational ability to recognize new information values, to assimilate them, and apply them to commercial goals. Furthermore, Cohen and Levinthal (1990) explain that they assume the company's absorption capacity tends to grow cumulatively, depends on the pathways and builds on existing knowledge: 'absorption capacity is more likely to be developed and maintained as a by-product of routine activity when the new knowledge domain of the firm wanting to exploit is closely related to its current knowledge base. In addition, Lane and Lubatkin (1998) further explain that the capacity of absorption is the level of construction level indicated relative absorptive capacity rather than establishing enterprise level. Furthermore Zahra and George (2002) in his research explain that reconceptualization of absorptive capacity by proposing four dimensions, namely the ability to acquire, assimilate, transform, and exploit knowledge. The ability of organizational absorption also enables organizations to develop new ideas to solve existing problems by linking learning and knowledge creation. Furthermore Zahra and George (2002), explains that absorptive capacity is the intensity of business and the speed of the organization in identifying and acquiring the necessary knowledge for its operating activities obtained from the external environment. The ability of an organization to examine or assess prior knowledge possesses, synthesizes knowledge, and combines knowledge gained from external sources. Organizational ability to develop and improve routines that facilitate the incorporation of existing knowledge with newly acquired knowledge. The ability of organizations to improve, extend, and elevate existing competencies or create new ones by combining acquired knowledge (Nonaka and Takeuchi, 1995).

Empirical studies by Knudsen and Roman (2004) also show that absorption is an important factor in predicting organizational innovation capability. On the other hand, Caloghirou et al. (2004) investigates the extent to which internal company capabilities are present and their interaction with external sources of knowledge influences their innovation levels. Their research findings show that some of the capabilities resulted from a prolonged process of investment and knowledge accumulation within the firm and shaped what has been discussed as an enterprise's absorptive capacity. Also, the results show that both internal capability and openness to knowledge sharing are important to improve innovative performance. In addition, Nieto and Quevedo (2005) analyzed the influence of three variables related to industrial structure (absorptive capacity, technological opportunities, and knowledge spillovers) on innovative efforts developed by the company. Based on our previous research, our study argues that employee's ability

and motivation to work hard determines the company's performance in developing technical and managerial innovation capabilities.

Based on the above explanation can be drawn the second hypothesis:

*H2: Absorptive capacity has a positive effect on service innovation performance.*

### **2.3 Service innovation performance**

Hu et al. (2009) defines the performance of service innovation as something new or something enhanced and done by the company to create significant added value either directly to the company or directly to customers. Similar sentiment Gloet and Terziovski (2004) say that innovation will improve performance, solve problems, add value and create competitive advantage for the company. Therefore a more understanding of the nature of innovation is needed. Enterprise management must ensure that innovation can be assembled into a corporate culture (Gloet and Terziovski, 2004). Furthermore, in the process of innovation is very dependent on knowledge (Nonaka and Takeuchi, 1995).

Scott and Bruce (1994) say that the central issue in management innovation is management attention. Managing attention is believed to be more difficult, as it concerns the adaptation of individuals to their environment.

Based on the development of innovation there are important things to note that the existence of innovative behavior. Scott and Bruce (1994) explain that innovative behavior has a relationship with behavior generating useful new ideas. Furthermore, Scott and Bruce (1994) concluded that individuals with innovative behavior sought support for the ideas they created and sought to build cooperation on the new idea.

Companies that are said to be successful are companies that have a greater difference in terms of products, services and reputation of the company as a whole (Indarti, 2010). In this case, the company's distinctive position includes the benefits of new services in the market. The presence of new services is expected to have an impact on customer satisfaction followed by customer loyalty (Matear et al., 2004). Good customer loyalty creates barriers to entry for competitors (Fitzsimmons and Fitzsimmons, 1994). Of these several opinions, Matear et al. (2004) concluded that the development of new services is the process of managing new or adopted ideas in order to be efficient for the creation of sustainable competitive advantage for the company. In an innovation management company is necessary because to create and develop fresh ideas that must continue to flow as quickly as possible and at all times in anticipation of the development of a dynamic world.

Chan et al. (1998) found that hotel services, restaurants and tourism businesses still tend to focus on improving the quality of innovation. Further Jeong and Oh (1998) propose the need for a new service quality approach by replacing the old ways of service. The service sector at this time has grown rapidly, with such developments it is necessary to develop studies on the performance of service innovation in this sector (Hallin and Marnburg, 2006; Hu et al., 2009).

### **3 Methods**

The population in this research is employees who work at Islamic Banking company in North Borneo Indonesia. The sample size in this study was 148 employees. This number has met the needs of the minimum sample size in multiple regression analysis (Hair et al., 2010). The sample was taken by using non probability sampling method with purposive sampling technique. The criteria used are employees of Islamic Banking who have worked in Islamic banks and have experience at least 1 year in their field. These criteria are chosen because it is assumed that employees who have minimum 1 year working experience in their field have experience in sharing knowledge and knowing culture in company.

This research uses survey method. The data were collected using questionnaires that have been developed by previous researchers. The construct shared the knowledge and performance of its measurement service innovation using a questionnaire developed by Hu et al. (2009) and subsequently the absorptive capacity construct of the measurement using a questionnaire developed by Liao et al. (2006). To support a good response rate in data collection then the questionnaire will be distributed directly to all respondents. Each of these variables is measured using a 5 Likert scale (1 strongly disagree, 5 strongly agree). Knowledge sharing variables have two dimensions: reputation and altruism (Davenport and Prusak, 1998; Walz and Niehoff, 2000). The knowledge-sharing variable is operationalized with 11 items of statement developed by Hu et al. (2009). The focus of this measurement is to know knowledge sharing activity is done within the company based on the perception of sharia banking employees. Furthermore, service innovation performance variables have two dimensions: innovative behavior and new service development (Scott and Bruce, 1994; Matear et al., 2004). Variable performance of service innovation was measured using 14 statement items developed by Hu et al. (2009). This measurement is intended to show the level of innovation in Islamic banking companies in Indonesia. The variable of absorptive capacity has two dimensions: Employees' learning ability and Employees' learning motivation. The capacity variable of absorptive capacity is measured using 12 statement items developed by Liao et al. (2007). This measurement is intended to show how big the capacity of employee absorption capacity in Islamic banking company in Indonesia. Testing of statistical analysis is done by using SPSS software.

## **4 Research results**

### **4.1 Data Collection Results**

#### **4.1.1 Respondent Profile**

Based on data from 148 employees working for Islamic Banking companies that have participated in this study, all have been in accordance with the criteria of respondents selected by the researchers.

Based on table 1, most (8.7%) of respondents in this study were women. Most are in the mature age range of 30-35 years (83%). Respondents working in banking companies in Indonesia who participated in this study have mostly had working experience ranging from 19-21 years (30%). It can be interpreted that the experience of work owned by respondents from each department in banking companies in Indonesia is a senior worker who has a fairly good working period. The education level of the majority of respondents in this study is the university of 111 (75%). From these data indicate that the level of education owned by most employees in each department in Islamic Banking company in North Borneo is university and classified as productive age. Furthermore, in terms of marital status, respondents involved in filling in the questionnaire data in this study which has the largest percentage of respondents who have been married as many as 104 people (70.3%). From the description shows that the majority of employees in each department in banking companies in Indonesia are married employees. Furthermore, the most dominant position of respondents in this study is the position of the position as first-line staff as much as 88 (59.5%).

Table 1: Profile of Respondents

Dimension	Category	Number of responden	Percentage
Gender	a. Male	61	41,2%
	b. Female	87	58,8%
Age	a. 17-23 year	3	2%
	b. 24-29 year	16	10,8%
	c. 30-35 year	83	56,1%
	d. 36-39 year	28	18,9%
	e. > 40 year	18	12,2%
Organizational Tenure	a. 1-3 years	12	8,1%
	b. 4-6 years	20	13,5%
	c. 7-9 years	23	15,5%
	d. 10-12 years	8	5,4%
	e. 13-15 years	5	3,4%
	f. 16-18 years	28	18,9%
	g. 19-21 years	30	20,3%
	h. >22 years	22	14,9%
Education	a. Vocational school	5	3,4%
	b. University	111	75%
	c. Master's	31	20,9%
	d. Ph.D	1	0,7%
Marital Status	a. Married	104	70,3%
	b. Single	44	29,7%
Job Title	a. <i>First-line staff</i>	88	59,5%
	b. <i>Grassroots leader</i>	30	20,3%
	c. <i>Unit chief</i>	18	12,2%
	d. <i>Dept. supervisor</i>	7	4,7%
	e. <i>Highest level</i>	5	3,4%

#### 4.1.2 Validity and reliability

The result of CFA of the 11 knowledge sharing statement items, there are 6 (six) statements have a good validity value with a minimum limit of 0.5. The results of CFA absorptive capacity statement items amounting to 12 (sixteen) statements, there are 5 (five) statements have a good validity value with a minimum limit of

0.5. The results of the CFA of service innovation performance statement items totaling 14 (eleven) statements, there are 11 (eleven) statements have a good validity value with a specified minimum limit of 0.5.

Instrument reliability test in this study was conducted with cronbach alpha. The coefficient of cronbach alpha approaching 1 means the instrument has a high reliability. If the cronbach alpha value of each variable is at least 0.60 to 0.70 then the tested variable meets the reliability requirement (Hair et al., 2010). Reliability test results for knowledge sharing, absorbtive capacity and service innovation performance. All three variables are stated reliable with the value of cronbach alpha above 0.60 (Hair et al., 2010), so it can be used in further analysis.

#### 4.1.1 Hypothesis Testing

Table 2: Results of hypothesis testing using regression

Variable	Model		
	$\beta$	T	Sig.
Knowledge Sharing	0,680	5,970	0,00**
Absobtive Capacity	0,228	2,336	0,00**
F		161.667	0,00
$R^2$		0,675	
<i>Adjusted R<sup>2</sup></i>		0,671	

\*  $p < 0,05$ , \*\*  $p < 0,01$ .

**H1:** *Knowledge sharing positively affects the performance of service innovation.*

The first hypothesis suggests that there is a positive influence of knowledge sharing on service innovation performance. Hypothesis test results in Table 4.6 shows that knowledge sharing has a significant positive impact on innovation performance of Islamic Banking services in North Borneo. It can be seen from the value ( $\beta = 0.680$ ,  $p < 0.01$ ). Based on these statistical results, it shows that the first hypothesis proposed in this study is supported.

Based on the results of statistical analysis that has been done, shows that knowledge sharing has a positive and significant impact on service innovation performance at Islamic banking company in North Borneo. Based on a significance level of 1%, indicating that knowledge sharing is a good variable to use to predict service innovation performance. The confidence level of these variables in predicting service innovation performance is very high. This is indicated by the level of knowledge sharing variable error in explaining the service innovation performance is very small that is equal to 1%.

In the context of Islamic banking in North Borneo, knowledge sharing with service innovation performance has a one-way relationship. This means that when Islamic Islamic banking in North Borneo has a high level of knowledge sharing,

it will make it easier for Islamic Banking in North Borneo to innovate in the services provided to customers. Implementing knowledge sharing will provide the creation of new knowledge within the company (Nonaka and Takeuchi, 1995). Existing knowledge is a very valuable capital to be able to innovate within the company (Davenport and Prusak, 1998). Thus, support for the first hypothesis in this study, in line with the theories referred to (Nonaka and Takeuchi, 1995; Davenport and Prusak, 1998) and earlier research results (Hu et al., 2009, Wuryadiningrat, 2013).

In the context of the employees of Islamic banking in North Borneo, the culture of togetherness is still very closely with the work culture in the banking world. The character of Indonesian people who promote mutual respect, respect and cooperation make it easier for them to share knowledge in the implementation of work. With this attitude, will trigger the emergence of ideas or knowledge among employees of Islamic banking in North Borneo to innovate in providing services for customers.

**H2: *Absorptive Capacity has a positive effect on service innovation performance***

The second hypothesis suggests that there is a positive effect of absorptive capacity on service innovation performance. The result of hypothesis test in table 2 shows that absorptive capacity gives a significant positive impact on innovation performance of Islamic banking services in North Borneo. It can be seen from the value ( $\beta = 0,228$ ,  $p < 0,01$ ). Based on these statistical results, it shows that the second hypothesis proposed in this study is supported.

Based on the results of statistical analysis shows that absorptive capacity has a positive and significant impact on innovation performance of Islamic banking services in North Borneo. Ability to absorb capacity in predicting service innovation performance also has high confidence with error rate of 1%. The value of positive coefficient in absorptive capacity influence on service innovation performance shows that absorptive capacity has a direct relationship with performance of Islamic banking service innovation in North Borneo. This means that Islamic banking in North Borneo which is in the operationalization of work prioritize absorptive capacity in groups, then the company will be easier to innovate in providing services to its customers.

In the context of the Islamic banking company in North Borneo a culture of kinship and togetherness is strung together in a culture and highly respected in organizational life and society. This is in line with research conducted Wuryadiningrat (2013) which explains that in a good working environment will be able to facilitate the absorptive process of each employee who further able to encourage corporate innovation.

## 5 Conclusion

This research is aimed to obtain empirical evidence of the influence of knowledge sharing and absorptive capacity on innovation performance of Islamic banking services company in North Borneo. Sharing of knowledge and absorptive capacity in this research have a positive effect on innovation performance of Islamic banking services company in North Borneo, Indonesia.

The conclusion of the research results can be explained in the description as follows: First, this research can prove that knowledge sharing has a positive effect on service innovation performance in Islamic banking company in North Borneo Indonesia. Second, this research can prove that absorptive capacity has a positive effect on service innovation performance in Islamic banking company in North Borneo Indonesia.

## 6 Limitations of research and advice

Implementation of this research there are some limitations that are expected to be an ingredient in providing improvement suggestions for further research on relevant topics. Limitations and suggestions in this study are: first this study using cross sectional study so that only able to explain a phenomenon at one time only, consequence cannot know existence of influence of time change. Service innovation is a diffusion process that can change over time, so future research can test service innovation with longitudinal studies. Both future studies can be done in the context of different organizational cultures so that there can be differences in the influence of organizational culture on the performance of the banking company's service innovation (eg by comparing the management of Islamic banking International with local Islamic banking management).

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