

# **The Impact of Absorptive Capacity on Service Innovation Performance: An Empirical Study on Banking in East Borneo Indonesia**

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## **Abstract**

The research was conducted at a banking company in East Borneo, Indonesia. To improve the service innovation performance, companies need the ability to absorptive capacity. The study was tested with 197 employees working in banking companies in East Borneo, Indonesia. Data were collected using survey method with questionnaire. The survey responses submitted by respondents in this study indicate that the effect of absorptive capacity on service innovation performance shows significant results.

**JEL classification numbers:** O31, O3, L8

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

## **1 Introduction**

The era of globalization today, shows the rapid development of information and technology. This resulted in the high level of competition that occurs in the world of business globally. Along with these developments showed a fairly strong change to the product life cycle. Companies are required to adapt to dynamic market structures as well as innovate sustainably in order to survive the competition and ultimately able to demonstrate competitive advantage and

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maintain their market share. Under conditions of uncertainty, innovation is one of the most important strategies to sustain corporate life.

In order to survive, companies need to introduce new goods and services and find new ways of doing business (Indarti, 2010). In the face of competition the company must be able to turn into an innovative company (Lee, 2007). Johannessen et al. (2001) states that innovation is the way companies have sustainable competitiveness. According to Guan and Ma (2003), innovation capabilities enable companies to gain a sustainable competitive advantage viewed as dynamic capabilities. Dynamic capability is needed by companies in the face of competition.

Industries that are currently very high level of competition is the banking industry (Mehra, 1996, Vivies, 2001). Innovation in banking can help the banking industry to grow and win global market competition (Mehra, 1996). It is important to be guarded as the banking industry plays a major role in the global economy (Macmillan et al., 1985) and because, in today's competitive banking sector, the right business innovation is needed to win the competition (Bikker and Haaf, 2002).

Hollins and Shinkin (2006) who said that service innovation performance can help improve the company's economic growth and global economic growth. The increasing number of customers who consume product service innovation can be an indicator of the success of the company to implement innovation (Kotler and Keller, 2009). This makes the performance of service innovation an important issue at the moment (Levitt, 2002). In other words, the company's success in innovating lies in its ability to develop knowledge (Darroch, 2005). The growth of the banking industry in Indonesia is currently offset by the high level of competition among banking entrepreneurs, it positively impacts the business competition climate that is the financial services provider company is motivated to always innovate continuously. Banking management is required to have the ability to hear and understand customer desires (Bikker and Haaf, 2002). Therefore, the emphasis on absorptive capacity between management and employees needs to be developed (Lin, 2007, Wuryaningrat, 2013).

The development of the absorptive capacity aspect of the banking industry is needed as one of the ways or ability of the company to acquire and assimilate the knowledge (ability of absorption) and ability to change and explore the knowledge (absorptive realization) (Zahra and George, 2002; Lin, 2007). Some researchers (Liao et al., 2006; Wuryaningrat, 2013) provide empirical evidence that absorptive capacity has an influence on service innovation performance.

Based on the above explanation the capability of organizational innovation needs to be supported by an important factor of absorptive capacity. This study aims to examine the effect of absorptive capacity on service innovation performance in banking companies in East Borneo, Indonesia.

This research was conducted in East Borneo, Indonesia. Data from Bank Indonesia in 2017 explains that economic growth in East Kalimantan during 2017 is estimated to reach 3.5%. This condition improved compared to the previous two

years (2015 and 2016). Until the third quarter, East Borneo economic growth is quite good, compared to 2015 and 2016. East Borneo's economy grew quarterly by 3.9%, the second quarter reached 3.6% and the third quarter of 3.54%, from the data estimated economic growth East Borneo IV quarter above 3%, so that during the year 2017 reached 3.5%. One of the supporters of economic growth in East Borneo, Indonesia is the development of banking industry sector in East Borneo, Indonesia. From these data it can be observed that the increase in the growth of the banking industry in East Borneo, Indonesia is very good, it needs to be balanced with the need to improve the quality of services by providers of banking services in East Borneo, Indonesia. Serious management of services in the banking industry in East Borneo, Indonesia is needed to increase the number of customers can be maintained.

## **2 Literature review and hypothesis**

### **2.1 The impact 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, depending on the path and built on existing knowledge, the absorption capacity is more likely to be developed and maintained as a by-product of routine activity when the new knowledge domain the company wants exploit is closely related to its current knowledge base. Absorptive capacity refers to the ability to assimilate and manage knowledge to improve innovation performance and competitive advantage (Hattinger et al., (2014) and Lane and Lubatkin (1998) further explained that absorptive capacity is a level of construction level indicated absorptive capacity relative rather than building a corporate level. 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 the organization to develop new ideas to solve existing problems by linking learning processes 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 knowledge necessary 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. The ability to learn is very important for an organization (Sabini and Spagnoletti, 2010). 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). It is stated in Minbaeva (2003) that the

greater capacity absorbed by the organization will have an impact on the higher level of knowledge transfer that will ultimately provide a competitive advantage.

An empirical study by Indarti (2010) in his research shows that absorption is an important factor in predicting the ability of organizational innovation that is shown through the ability of the organization to improve customer service. On the other hand, Wuryaningrat (2013) in the study concluded that the internal capabilities of existing firms and their interaction with external sources of knowledge affect their innovation levels. Furthermore Minbaeva et al. (2003) in his research found that both aspects of capacity absorption (ability and motivation) are needed and must be done optimally in order to facilitate the absorption of organizational knowledge. Absorptive ability (ability or motivation) positively affects the company's ability to innovate. It is pointed out by Zahra and George (2002) that the absorptive capacity (employee capacity) and absorption capacity realized (employee motivation) have a strong potential to maintain the company's sustainability in the face of competition and to do new things within the company. Based on the above explanation can be drawn hypothesis as follows:

**H1:** Employee ability has a positive influence on service innovation performance

**H2:** Employee motivation has positive influences on service innovation performance

## **2.2 Service innovation performance**

Service innovation is the idea of upgrading services that have been put into practice. The performance of service innovation is progressively measured with a set of criteria to improve the competing strategy of any organization. Measurement is the primary goal to support organizations to develop their service skills and also determine the design stage for developing services (Hussain et al. (2016).

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. Enz and Siguaw (2003) in his research explain that managers can learn through the success of previous leaders, which proven to motivate their employees, then managers can also build a positive culture of innovation in the organization. Hussain et al. (2016) in his research explains that previously, many researchers have found that service sectors tend to focus on improving quality rather than pushing themselves toward innovation. Hussain et al. (2016) explains that the majority of studies have not developed innovative capabilities in themselves. The commodification of any service is important, as it helps service suppliers to understand how services have been received by the service consumers and what their extra needs and wants are. In line with that (Jeong and Oh, 1998) concluded that to meet the demands of consumers the organization must conduct quality development through new services and modification of old services.

Gloet and Terziovski (2004) who 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). 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 Indarti (2010) 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. Therefore, service providers need to encourage and motivate their employees to innovation development process in gaining competitive advantage.

### **3 Methods**

The population in this study are employees working in banking companies in East Borneo, Indonesia. The sample size in this study was 200 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 bank employees who have worked at a bank company and have at least 1 year experience in their field. These criteria are chosen because it is assumed that the employee with minimum 1 year working experience in field has experience in absorptive capacity and familiar with the culture within the company.

This research uses survey method. The data were collected using questionnaires that have been developed by previous researchers. The absorptive capacity construct of the measurements uses a questionnaire developed by Minbaeva et al. (2003). 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). The absorptive capacity variable has two dimensions: employees' learning ability and employees' learning motivation. The absorptive capacity variable was 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 banking companies in East Borneo, Indonesia. The focus of this measurement is to know the absorptive capacity activity carried out within the company based on the perception of bank employees in East Borneo, Indonesia. 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 banking companies in East Borneo, Indonesia. Testing of statistical analysis is done by using SPSS software.

## 4 Research results

### 4.1 Data collection results

The data collection in this study was conducted for twenty-eight days starting from January 10th to February 6th, 2018. Total questionnaires distributed directly to 200 respondents in six banks in East Borneo, Indonesia. Data returned or collected as many as 197 units (response rate 91%). In other words, 197 respondents who fill the questionnaire in this study has met the criteria of the sample that has been determined, the remaining 3 questionnaires that have been collected cannot be used in data processing because it does not meet the criteria of the sample set by the researcher. More details about the results of data collection can be seen in table 1.

Table 1: Results of data collection

Data collection (time)	28 day	Percentage
Total questionnaires distributed	200 questionnaire	100%
The questionnaire did not return	0 questionnaire	0%
The returned questionnaire	200 questionnaire	96,5%
The questionnaire did not meet the sample criteria	3 questionnaire	9%
The questionnaire meets the sample criteria	197 questionnaire	91%

Table 1 shows that the respondents' participation rate is very good by looking at the data of the questionnaire that has returned to reach 96.5% and 91% of the questionnaire data that has met the specified sample criteria. In other words the data can be further processed.

#### 4.2 Profile of respondents

Based on data from 197 employees working in bank companies that have participated in this research, everything has been in accordance with the criteria of respondents selected by the researchers.

Based on table 2, most (61.4%) of respondents in this study were women. Most are in the mature age range of 30-35 years (44.7%). Respondents working in banking companies in East Borneo, Indonesia who participated in this study have mostly had working experience ranging from 16-18 years (27.4%). It can be interpreted that the experience of work owned by respondents from each department in banking companies in East Borneo, 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 132 (67%). From these data indicates that the level of education that most of the employees in each department in the bank company in East Borneo, Indonesia 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 unmarried respondents as many as 102 people (51.8%). From the description shows that the majority of employees in each department in banking companies in East Borneo, Indonesia are unmarried employees. Furthermore, the most dominant position of respondents in this study is the position of the position as first-line staff as much as 85 (43.1%).

Table 2: Profile of respondents

Dimension	Category	Number of responden	Percentage
Gender	a. Male	76	38,6%
	b. Female	121	61,4%
Age	a. 17-23 year	13	6,6%
	b. 24-29 year	64	32,5%
	c. 30-35 year	88	44,7%
	d. 36-39 year	22	11,2%
	e. > 40 year	10	5,1%
Organizational Tenure	a. 1-3 years	15	7,6%
	b. 4-6 years	21	10,7%
	c. 7-9 years	33	16,8%
	d. 10-12 years	25	12,7%
	e. 13-15 years	30	15,2%
	f. 16-18 years	54	27,4%
	g. >19 years	19	9,6%
Education	a. Vocational school	37	18,8%
	b. University	132	67%
	c. Master's	28	14,2%
Marital Status	a. Married	95	48,2%
	b. Single	102	51,8%
Job Title	a. <i>First-line staff</i>	85	43,1%
	b. <i>Grassroots leader</i>	56	28,4%
	c. <i>Unit chief</i>	33	16,8%
	d. <i>Dept. supervisor</i>	20	10,2%
	e. <i>Highest level</i>	3	1,5%

### 4.3 Validity and reliability

The CFA results in an absorptive capacity statement item of 12 (twelve) statements, and of the twelve items the statement has a good validity value with a specified minimum limit of 0.5.

The CFA results of service innovation performance statement items totaling 14 (eleven) statements, there are 14 (fourteen) statements having good validity values 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 absorptive capacity variable and service innovation performance. Both of these variables are considered reliable with the value of cronbach alpha above 0.60 (Hair et al., 2010), so it can be used in further analysis.

### 4.4 Hypothesis testing

Table 3: Results of hypothesis testing using regression

Variable	Model		
	$\beta$	T	Sig.
Employees' Ability (ACAP)	0,641	11,522	0,00**
Employees' Motivation (ACAP)	0,522	9,032	0,00**
F		83,586	0,00
$R^2$		0,459	
<i>Adjusted R<sup>2</sup></i>		0,408	

\*  $p < 0,05$ , \*\*  $p < 0,01$ . (ACAP: absorptive capacity)

**H1:** Employee ability has a positively influence on service innovation performance

The first hypothesis suggests that there is a positive influence of employee ability (absorptive capacity) on service innovation performance. The result of hypothesis test in table 3 shows that employee ability gives a significant positive impact on the performance of bank service innovation in East Borneo, Indonesia. It can be seen from the value ( $\beta = 0,641$ ,  $p < 0,01$ ). 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 employee ability has a positive and significant impact on the performance of service innovation in banking companies in East Borneo, Indonesia. 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 error rate of employee ability variable in explaining the service



innovation performance is very small that is equal to 1%.

In the context of banking companies in East Borneo, Indonesia, employee ability with service innovation performance has a one-way relationship. This means that when a bank company in East Borneo, Indonesia has a high level of employee ability, it will make it easier for bank employees in East Borneo, Indonesia to innovate in the services provided to their customers. Thus, support for the first hypothesis in this study, in line with the theories referred to (Cohen and Levinthal, 1990; Lane and Lubatkin, 1998), and the results of previous studies (Minbaeva et al., 2003; Zahra and George, 2002; Liao et al., 2007, Indarti, 2010, Wuryadiningrat, 2013).

**H2:** Employee motivation has a positive influence on service innovation performance

The second hypothesis suggests that there is a positive influence of employee motivation (absorptive capacity) on the performance of service innovation. The result of hypothesis test in table 3 shows that employee motivation has a significant positive impact on the performance of bank service innovation in East Borneo, Indonesia. It can be seen from the value ( $\beta = 0,522$ ,  $p < 0,01$ ). 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 employee motivation (absorptive capacity) has a positive and significant impact on the performance of bank service innovation in East Borneo, Indonesia. Ability employee motivation (absorptive capacity) in predicting service innovation performance also has high confidence with error rate of 1%. The value of positive coefficient in the influence of employee motivation on the performance service innovation shows that employee motivation (absorptive capacity) has a direct relationship with service innovation performance of bank in East Borneo, Indonesia. This means that the bank in East Borneo, Indonesia which is in the operationalization of work prioritize absorptive capacity (employee motivation) in a group, then the company will be easier to innovate in providing services to bank customers in East Borneo, Indonesia.

In the context of banking companies in East Borneo, Indonesia a culture of kinship and togetherness is strung together in a culture and highly respected in organizational life and society. Tolerance is a very solid foundation in many ways, including in absorptive capacity (employee motivation) that they live. This is in line with previous research conducted (Minbaeva et al., 2003; Liao et al., 2007, Wuryadiningrat, 2013) that in a good working environment and culture that prioritize togetherness will be able to facilitate the absorptive capacity process of each employee who is then able encourage enterprise service innovation.

## 5 Conclusion

This research is aimed to obtain empirical evidence of the influence of absorptive capacity (employee ability and employee motivation) in this research have positive effect on innovation performance of bank service company in East Borneo, Indonesia.

The conclusion of the research results can be explained in the following description: Firstly this research can prove that employee ability (absorptive capacity) have a positive effect on service innovation performance in banking company in East Borneo, Indonesia. Both of these studies can prove that employee motivation (absorptive capacity) positively affects the performance of service innovation in banking companies in East 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 uses cross sectional study so that only able to explain a phenomenon at one time only, the consequence cannot know the 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. Second, future research 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 the International bank with the management of the local bank).

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