

## **The Strategic Of It Capability to Support Innovativeness for Firm Performance**

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**ABSTRACT: Purpose** – This study aims to analyze the relationship between Innovativeness to Firm Performance, IT Capability to Innovativeness, IT Capability to Firm Performance. This study also tests whether IT Capability can be an Innovativeness moderator of Firm Performance.

**Methodology** –This research includes quantitative research, data collection in this study using a questionnaire. The selected respondents were employees of IT users (computers) with the sampling technique used by researchers, namely purposive sampling. Of the total population of 385 employees, of the 358 employees who will be used as research samples as many as 31 employees with the criteria of employees of IT users (computers). The analysis technique in processing data uses the SPSS program.

**Research Findings** –The results of this study indicate that Innovativeness has a positive effect on Firm Performance, IT Capability has a positive effect on Innovativeness, IT Capability has a positive effect on Firm Performance. This study also succeeded in answering the effect of IT Capability as a moderator variable in influencing Innovativeness towards Firm Performance.

**Originality** –This study deals with the ability of employees of IT users (computers).

**Keywords:** Innovativeness, IT Capability, Firm Performance.

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### **I. Introduction**

In a contemporary view of economics, innovation is considered as one of the most important factors for the survival, growth, and competitiveness of a company. In addition, it is claimed that in the long run innovation is the only effective way in Simon (2009) market share competition. Conducted innovation involves the introduction of ideas from outside the organization, through a creative process in realizing ideas into better products, services and information systems in order to gain profit and improve performance. Camison and Villar-Lopez (2014) reveal that the adoption of organizational innovation enhances the company's technical capabilities to develop new products. Piening and Salge (2015) the organization's ability to manage various activities related to innovation enables companies to increase innovation process activities to gain more profits. OSLO Manual (2005) divides four types of innovation criteria, namely product innovation, process innovation, marketing innovation, and innovation organization.

Innovations carried out are not only limited to the innovation of goods and services. In addition to innovating, Anandhi Bharadwaj (2000) IT development is in the spotlight in the development of companies building IT capabilities of an organization supported by introducing IT governance and IT excellence. IT governance can help determine strategic ways of developing IT capabilities. In addition, the company is faced with efficiency, innovation, business development and so forth. The company began implementing technology development taking into account the growing importance of information in today's business environment. To achieve competence and ability with tools and processes to manage information effectively and efficiently. It takes the ability of resources that are able to develop and process following technological developments. This capability is referred to as IT capability (Information Technology). Many studies seek to understand the role of IT in corporate performance, and more researchers pay attention to IT capabilities, including potential IT capabilities that can be transformed into business value.

For companies with good management, they will try to develop their own IT as a way to keep the existence of the company Alvarez et al. (2013). Such actions are very important in a global and competitive environment, where the application of emerging IT information technology can help in managing existing business opportunities. IT capability is something that is mandatory for every business person if he wants to continue to

grow and maintain the existence of his company. Sophistication and change are so fast in the development of IT itself.

This study tries to discuss the influence of Innovativeness on Firm Performance. This research refers to the results of research conducted by Schlemmer and Webb (2009) that the current IT capabilities are very much needed with various innovations. Jansen et al., (2006), however, relatively little is known about how IT capabilities influence innovation and company performance. The results of research conducted by Roman (2012) in this study explain that IT capabilities do not have a significant moderating effect between innovation and company performance. From the results of research conducted by Roman (2012) with research in place and different economic conditions, whether this research can also be applied in other countries, especially Indonesia. It is expected that this research can improve the IT capabilities of the company in innovating in order to get better benefits and improve performance.

## **II. Literature Review And Hypothesis**

### ***Innovativeness and firm performance***

Robbins and Coulter (2010) interpret Innovativeness as a process of transforming creative ideas or thoughts into a product or a useful way of working. According to Huberman (1973) Innovativeness is a creative process in sorting, organizing, utilizing human and material resources in a unique new method and producing better achievements for the goals and objectives that have been set. According to Kasali (2010), Innovativeness is defined as the ability to see things in new ways and sometimes out of habit. According to Anshori (2010), interpreting Innovativeness as the sum of the questions of why and how. Lump-kin and Dess (1996), the main reason for companies to innovate is to get benefits, such as profits and performance improvements. In the study of Murat Ata-lay, Nilgun Anafarta and Fulya Surfan (2013) Of the four processes of innovation, product innovation, process innovation, organizational innovation, and sales innovation. Only product and process innovations have a positive effect on company performance. The results of different studies conducted by Mavondo F. T, Chimhanzi. J and Steward. J (2005) stated that Innovativeness has a positive effect on Firm Performance. Based on the arguments that have been stated, the formulation of the hypothesis is:

*H<sub>1</sub> : There is a positive relationship between Innovativeness towards Firm Performance.*

### ***IT Capability and Innovativeness***

Information technology is a resource that can be easily imitated by competitors so that it takes the ability to distinguish between other companies and their competitors as a determinant of success (Day 1994). The IT capability in question is the ability to utilize infrastructure in the form of available IT hardware and software that is supported by the skills or expertise of each individual IT user. According to Anandhi S Bharadwaj (2000), interpreting IT capability as a company's ability to direct and disseminate resources based on information technology in combination or combining with other resources and capabilities. According to Nakata et al., (2008) IT capability as the ability or expertise of a computer system, a collection of computers and related technologies in an organization to store, organize and disseminate information. As for other understandings of IT capability from a different perspective. According to Ross et al., (1996), interpreting IT capability as the ability to control costs associated with IT, provide a system if needed, and influence business goals through IT implementation. Carbonara (2005) IT improves communication, sharing information and knowledge that supports the innovation process. The use of IT in the process of developing and manufacturing a new product is expected to shorten the development cycle. In the study conducted by Lelja Turulja and Nijaz Bajgoric (2016). IT capability facilitates innovation and empirically that innovation affects the company positively. Based on the arguments that have been stated, the formulation of the hypothesis is:

*H<sub>2</sub> : There is a positive relationship between IT Capability and Innovativeness.*

### ***IT Capability and Firm Performance***

Daft (2010) means firm performance as the company's ability to achieve company goals by using resources efficiently and effectively. The company is an institution with the aim of creating wealth through the business it runs Mulyadi (2001). Within the company, there are various activities, carried out by officials with various types of professions both at management and operational levels. Every company will always review the extent to which company performance has been achieved in a certain period. This is done for periodic repairs to stay away from competitors in the business field. In the era of information technology, with a changing work environment, the role of IT becomes increasingly important to strengthen competitiveness. The need for IT for companies is not only to save costs but to gain more profit from the application of IT. Some studies claim that IT can only be felt in the form of hardware and software that cannot provide a competitive advantage because it

is too easy to duplicate (Huang and Liu 2005; Meta et al., 1995; Tippins and Sohi, 2003). A different matter is stated by Anandhi Bharadwaj (2000) competitive advantage includes resources and skills that combine to form IT capabilities that are valuable, rare, cannot be replicated and cannot be substituted. Several studies tried to answer the relationship between IT Capability and company performance, especially studies conducted by Man, Z, Saonee, S, and Supratek, S (2012). IT capabilities affect the performance of companies born in the global era. IT and IT capabilities for strategic alignment in maintaining Saeid Jorfi, Khalil Md Nor, Lotfi Najjar (2017) and research conducted by Anandhi S Bharadwaj (2000) companies with superior IT capabilities in improving company performance. Based on the arguments that have been stated, the formulation of the hypothesis is:

*H<sub>3</sub> : There is a positive relationship between IT Capability and Firm Performance.*

**IT Capability is able to strengthen Innovativeness in improving Firm Performance.**

Some researchers argue that IT has a direct effect on the performance of companies Wade and Hulland (2004) IT can be used to increase other resources or capabilities and strengthen their impact on company performance. In contrast to the results of research conducted by Roman Kmiecik, Anna Michna and Anna Meczynska (2012) state that IT capabilities do not have a significant moderating between innovation and company performance.

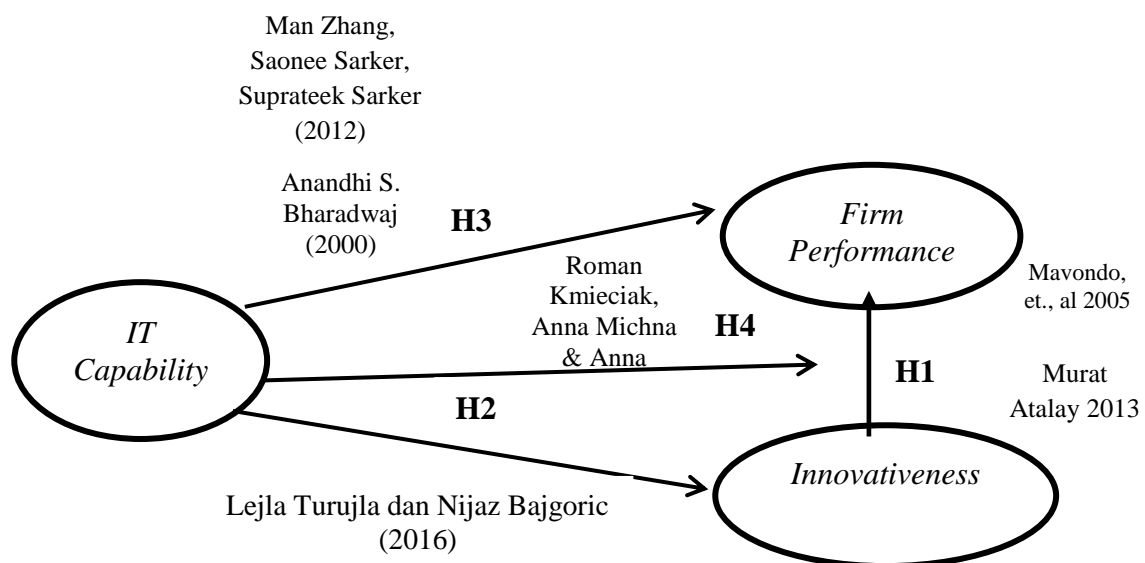
*H<sub>4</sub> : IT Capability is able to strengthen Innovativeness in improving Firm Performance.*

**III. Methodology**

This research includes quantitative research with the scope of the work of IT users. The location that will be used as the place of this research is the company PT. Jatim Park 1, Kota Batu, East Java. It is known that the population is 385 employees and the sample used is 31 employees with the criteria of employees of IT (computers). The independent variables that will be examined are Innovativeness (X), IT Capability (M) while the variable depends on Firm Performance (Y). Data collection techniques by observing, interviewing employees of IT users (computers) and distributing questionnaires. The analysis technique in processing data uses the SPSS program.

**Structural Model**

Figure 1 shows the construct relationships that are being investigated in this study.



**Picture 1. Structural Model**

**IV. Discussion Result**

Based on the testing of instrument validity, that most items in the Innovativeness variable, Firm Performance, and IT Capability produce a correlation coefficient value that is greater than the table correlation

value (0.355), so items that measure these variables are declared valid, and there are some items that produce coefficient values the correlation is smaller than the table correlation value (0.355), so it is declared invalid in measuring the Innovativeness variable. The invalid item is discarded and then retested and from the results of the retest, the item is declared valid. Based on the summary of the results of the research instrument reliability testing, it was found that all variables produced the Cronbach's Alpha value > 0.6. Thus the question/questionnaire items on all these variables are declared reliable or consistent in measuring these variables so that they can be used as a data collection tool in this study.

**Table 1 results of the Innovativeness equation on Firm Performance**

Variable	Information	Regression Coefficient		t <sub>count</sub>	sig
		B	β		
<b>X</b>	<b>Innovativeness</b>	<b>1.641</b>	<b>0.689</b>	<b>5.521</b>	<b>0.000</b>
<b>Constant</b>	<b>-6.497</b>				
<b>R</b>	<b>0.689</b>				
<b>R Square</b>	<b>0.487</b>				
<b>F<sub>count</sub></b>	<b>27.57</b>				
<b>N</b>	<b>31</b>				

**Dependent variable = Firm Performance (Y)**  
**t<sub>table</sub> = 2.045**  
**F<sub>table</sub> = 4.183**

$$(Y=a+bx)$$

$$Y = -6.497 + 1.641$$

From the results of the table above it is known that the effect of the Innovativeness variable on Firm Performance produces a coefficient of 1,641 indicating that Innovativeness has a positive effect on Firm Performance, with the resulting correlation value of 0.689 the correlation value is included in the category of sufficient relationships between variables. R2 Innovativeness to Firm Performance is 0.487 or 48.7% Innovativeness contributions to Firm Performance and 51.3% are contributions from other variables not discussed in this study. From the results of testing the value of F<sub>count</sub> = 27,570 with F<sub>table</sub> 4.183. The test results show F<sub>count</sub> > F<sub>table</sub>. This means that there is a significant simultaneous influence of Innovativeness on Firm Performance.

**Table 2 results of the IT Capability equation for Innovativeness**

Variable	Information	Regression Coefficient		t <sub>count</sub>	sig
		B	β		
<b>M</b>	<b>IT Capability</b>	<b>0.344</b>	<b>0.608</b>	<b>4.128</b>	<b>0.000</b>
<b>Constant</b>	<b>18.760</b>				
<b>R</b>	<b>0.608</b>				
<b>R Square</b>	<b>0.370</b>				
<b>F<sub>count</sub></b>	<b>17.041</b>				
<b>N</b>	<b>31</b>				

**Dependent variable = Innovativeness**  
**t<sub>table</sub> = 2.045**  
**F<sub>table</sub> = 4.183**

$$(M=a+bx)$$

$$M = 18.760 + 0.344$$

From the results of the table above it is known that the effect of the IT Capability variable on Innovativeness produces an IT Capability coefficient of 0.344 indicating that it has a positive effect on Innovativeness, with a correlation value of 0.608 the correlation value is included in the category of sufficient

relationships between variables. The value of R2 IT Capability to Innovativeness is 0.370 or 37.0% contribution of IT Capability to Innovative-ness, while the remaining 63.0% is a contribution from other variables. Simultaneous testing produces a value of  $F_{count} = 17,041$  with  $F_{table} 4,183$ . The test results show  $F_{count} > F_{table}$ . This means that there is a significant influence simultaneously on IT Capability towards Innovativeness.

**Table 3 results from the IT equation for Firm performance**

Variabel	Information	Regression Coefficient		$t_{count}$	Sig
		B	$\beta$		
M	IT Capability	<b>0.973</b>	<b>0.732</b>	<b>5.777</b>	<b>0.000</b>
Constant					
		<b>8.213</b>			
R		<b>0.732</b>			
R Square		<b>0.535</b>			
$F_{count}$		<b>33.379</b>			
N		<b>31</b>			

Dependent variable = Firm Performnace  
 $T_{table} = 2.045$   
 $F_{table} = 4.183$

$$(Y=a+bm)$$

$$Y = 8.213 + 0.973$$

From the results of the table above it is known that the effect of variable IT Capability on Firm Performance results in an IT Capability coefficient of 0.973 indicating that IT Capability has a positive effect on Firm Performance, with a correlation value of 0.732 where the results are categorized as strong relationships between variables. The value of R2 IT Capability to Firm Performance is 0.535 or 53.5% contribution of IT Capability to Firm Performance, and the remaining 46.5% is a contribution from other variables not discussed in this study. Simultaneous testing results in a value of  $F_{count} = 33,379$  with  $F_{table} 4,183$ . This shows  $F_{count} > F_{table}$ . This means that there is a significant influence simultaneously on IT Capability on Firm Performance.

**Table 4 results of the equation of effect of innovativeness variable on firm performance with IT Capability as a moderator variable.**

Variabel	Information	RegressionCoefficient		$t_{count}$	Sig
		B	$\beta$		
X	Innovativeness	<b>-0.983</b>	<b>0.418</b>	<b>-0.603</b>	<b>0.551</b>
M	IT Capability	<b>-1.054</b>	<b>-0.793</b>	<b>-0.742</b>	<b>0.464</b>
X*M	Interaction	<b>0.053</b>	<b>1.899</b>	<b>1.209</b>	<b>0.237</b>
Constant					
		<b>51.501</b>			
R		<b>0.810</b>			
Adjusted R2		<b>0.617</b>			
$F_{count}$		<b>17.121</b>			
N		<b>31</b>			

Dependent variable = Firm Performnace  
 $t_{table} = 2.052$   
 $F_{tabel} = 2.960$

$$(Y=a+b1x+b2m+b3*m)$$

$$Y = 51.501 - 0.983 + - 1.054 + 0.053$$

From the results of the table above it is known that the effect of variable innovativeness, firm performance with IT Capability as a moderator variable produces a correlation value of 0.819 where the correlation value is included in the category of sufficient relationships between variables. The test results show  $R^2$  in the moderator equation produces a value of 0.655 or equal to 65.5%. This means that the contribution of IT Capability as a moderator variable to Firm Performance is 65.5%, while the remaining 34.5% is a contribution from other variables not discussed in this study. Simultaneous testing produces a value of  $F_{count} = 17.121$  with  $F_{table} 2,960$ . The test results show  $F_{count} > F_{table}$ . This means that there is a significant influence simultaneously on IT Capability with innovativeness to firm performance. This result also shows that IT Capability can be a moderator variable in strengthening innovativeness in improving firm performance

## V. Conclusions And Implications

The results of this study prove that the proposed hypothesis is acceptable. This research shows that innovativeness will be able to be created by behavioral innovation so that from a customer's perspective there will be an increase in firm performance. Other research results show that IT Capability in enterprise IT infrastructure is able to create innovativeness by means of behavioral innovation. Other results show that IT Capability in IT infrastructure is able to improve firm performance. Other research results show that innovativeness can be created by behavioral innovation that can be strengthened by strengthening IT Capability by increasing the ability of IT infrastructure to be able to improve firm performance. In this study found a dominant influence that is the influence of IT capability on firm performance. This study is useful for companies, especially PT. Jawa Timur Park 1, in enhancing the ability of employees to utilize information and technology. The application of IT capability has a positive value on performance firms in carrying out business processes. The better the support provided by IT Capability, the greater innovation will be generated in the process of innovation, behavioral innovation, product innovation and organizational innovation owned by the company. In order to encourage employees to try new ways of doing things, look for new solutions, think and behave in an original way. In this study, it still needs to be developed by incorporating other variables into research, such as Supply Chain Management, empowerment, knowledge management, and environmental dynamics, Resource-Based, IT flexibility which are the limitations of this study, which can be taken into consideration in future studies. In this study, the selection of respondents can also be widened, such as CEOs who may have different views about innovation and IT capabilities in organizations compared to employees.

### Notes

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