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# ICT and Organization Performance: The Role of Innovation Mediation

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**ABSTRACT**: The purpose of this study was to find out how ICT (Knowledge of ICT and skills, infrastructure, and information sources) is influenced by innovations that become intervenig variable to organizational performance. Data from this study were obtained 70 questionnaires were distributed to employees of the ERP system users who work in PT. Housing Development, Tbk, which is one of the companies ERP users in Indonesia. Knowledge and skills variables affect the performance of the organization, while the source of information and infrastructure has no effect on organizational performance. The effect of innovation in mediating knowledge and skills and the source of information on company performance is partial mediation because the VAF values are in the range> 30 - <70. In addition, the innovation in mediating infrastructure for organizational performance is full mediation because the VAF values are in the range> 70. Limitations of this research is to only use one company as research samples, making it less able to generalize the findings

**KEYWORDS:** ICT, Organizational Performance, Innovation

#### I. INTRODUCTION

Information systems play an enormous role in organizational management operations to gain effectiveness and efficiency and the success of organizational strategy (Laudon & Laudon, 2000). While in the information globalization era, the use of information technology can create an organizational strategic advantage (O'Brien, 1996), which supports organizational operations, internal and external communications, monitoring of competitors' activities, managerial decision making and rapidly changing environment enables organizations to innovate and adapt quickly to changes in the environment. In addition to developing information technology must be coupled with the desire of the organization proactively exploit this development and efforts to create new business opportunities.

Organizational performance is a measuring tool for assessing and evaluating whether or not the organization's objectives are successful. Performance is defined as a description of the level and achievement of a process of implementation of both activities, programs and policies in order to realize the things that have been contained in the formulation of organizational strategic schemes namely goals, objectives, vision and mission to build a good organization (Bastian, 2001). The performance level of the organization can be seen from the extent to which the organization is able to achieve the goals, objectives, vision and mission that has been established. This statement is also supported by (Mahsun, 2006) which also states the definition of performance as a description of the results or level of achievement of the implementation of an activity, program and policy in realizing a series of plans contained in the strategic planning of an organization namely goals, objectives, vision and mission.

In improving its performance, every company must strategize carefully with each company having different strategies and strategies should be able to create competitive advantage (Chong et al., 2011). In the process of strategy formulation of the company there are many things that influence and encourage the improvement of the company's performance such as obtaining knowledge. Knowledge is a source of internal strength difficult to be adapted by competitors so that it can serve as a competitive advantage of the company. In addition knowledge is different from other resources that decrease when used, it will increase knowledge when used and will be more valuable by the organization (Aldi, 2005). Knowledge is organized information so that it can be used for problem solving and decision making, because someone who has knowledge and skills will improve innovation in the company so that company performance will increase (Woolf, 1990 in Liebowitz, 1999; Turban et al., 2004).

Chong et al (2011) in his research on the influence of information sources affect the performance of the organization states that the source of information both from internal and external companies will affect the size of the organization's performance. This shows that the performance of the organization is a description of the source of information owned by the company both from internal and external. Therefore, there is a possibility that the source of information will affect the performance of the company. With the innovation will strengthen the relationship between information sources on company performance. Sources of information obtained from both internal and external parties can be a new innovation for companies to make changes or new renewals in order to improve company performance.

Research on the influence of emotion on the quality of data system has been done before by several researchers. Syed and Rowland (2003) say that the availability of information and communication technology infrastructure (ICT) will also affect the performance of the organization. Infrastructure such as computers, Internet networks, communication networks, electronic mail (e-mail) and data collection process automatically or modern. Another thing is the incentive factor. Incentives are additional income that will be given to employees who can provide achievement in accordance with the specified. The main function of incentives is to give employees responsibility and encouragement. Incentives guarantee that employees will direct their efforts to achieve organizational goals. While the main goal of providing incentives is to increase the productivity of individual and group work (Panggabean, 2002: 93). So that incentives is a stimulus for employees to improve their performance. With such scope, the purpose of this research is to know how ICT (Knowledge of ICT and skills, infrastructure, and information source) to company performance. Furthermore, the focus of this research is on the mediation role of the relationship between ICT and company performance. Achieving corporate goals can not be separated from things to note. Good performance needs to be supported with the infrastructure (facilities and infrastructure), information resources, and knowledge and skills of everyone in the company. However, with the encouragement of innovation will further improve the company's performance.

The first part of this study describes the literature and findings about ICT, and its relationship to company performance. The next section sets the relationships and hypotheses to test the relationship between ICT, innovation and its relationship to company performance. The next section sets the relationships and hypotheses to test the relationship between ICT, innovation and its relationship to company performance. The second part of this study examined the proposed hypothesis with data from 70 study respondents.

#### II. LITERATURE REVIEW

## 2.1 Technology Acceptance Model (TAM)

Technology Acceptance Model (TAM) is one model that is built to understand and analyze the factors that may affect the acceptance of the use of a computer technology(Davis, 1989);(Davis et al., 1989), TAM was adopted from the model Theory of Reasoned Action (TRA) on the basis of the theory of reasoned action that someone is a chain reaction, and perceptions of things can determine the attitudes and behavior of the person. Such reactions and perceptions of users Technologically Information (TI), can affect a person's attitude with regard to receipt of the information system. One of the factors that influence is the user's perception of the ease of use and the benefits that can be obtained from the IT. It can affect the actions or reactions from users of IT as a measure of acceptance of the technology applied. TAM model was developed from the psychological theory that explains the behavior of computer users are basically influenced by the beliefs (belief), desire (intention), attitude (attitude), and the relationship of user behavior (user behavior relationship). TAM models aim to explain what factors of user behavior that may affect the acceptance of the technology. Two variables describing the attitude towards acceptance of the technology are:

- 1. ease of use (ease of use)
- 2. efficacy (usefulness)

Ease of use and usefulness can be attributed to how the response of users in the use of IT as well as in using the system. This model illustrates that the user acceptance of the system is affected by ease of use (ease of use) and efficacy (usefulness).

#### 2.2 ICT Knowledge and Skills

Knowledge of technology and skills owned by employees or employees is a factor that can affect the performance of the organization. Skill is the ability of a person to apply knowledge into action. An employee's skills are gained through education and training. According to Dessler (1997), training provides new or existing employees the skills they need to carry out the work. Sirait (2006) mentions there are some benefits obtained by the education and training, namely:

- a. Helping individuals to make better decisions and problem solving.
- b. Internalization and operationalization, work motivation, achievement, responsibility, and progress.
- c. Enhance self-confidence and self-development.
- d. Helps to reduce fear in carrying out new tasks.

Skills are what an employee must have in order to perform his job duties. And is the ability, intelligence, reactive, and stamina of work that individuals have to complete the job. Knowledge of information technology is a knowledge of how to use or utilize a technology that serves as provider and accessing information.

#### 2.3 Information Resources

Brown and Starkey (1994) introduced the concept of information awareness to be created within an organization. This concept concerns the organization's attitude towards the assessment of information as a resource and consequent process in making organizational learning / knowledge available by facilitating the knowledge transfer and sharing among professional staff. The opportunity for information resources or the ease of obtaining information is very important for accountants to update the source of information. Regular access or communication networks for expert information or the extent to which technical and professional information is readily available and accessible to accountants is an example of resource information opportunities.

#### 2.4 Infrastructure

Availability of Infrastructure for Information and Communication Technology (ICT) Infrastructure is any physical structured structure used to sustain the way of community activities in this organization so as to suppress the inefficiency of organizational activity (Grigg, 2000). Information and communication technologies (ICTs) are all things related to the process, the use of 25 as a tool, the manipulation and management of information and everything related to the use of tools to process and transfer data from one device to (Haryanto, 2008). The availability of information and communication technology (ICT) infrastructure within the organization will have an advantage in improving the provision of information to the decision-making process by management in developing or arranging a system, thus always having synergy in improving organizational performance. According Haryanto (2008) the availability of information and communication technology has three important functions in the organization, namely:

- 1. Collect and store data on activities and transactions undertaken by the organization.
- 2. Turning data into useful information for the management to make decisions in planning, implementation and oversight activities.
- 3. Provide adequate controls to safeguard organizational property.

Through these functions ICT will facilitate the work of employees to automate a task or process that replaces the human role and can be used in shaping the strategy for leading competitive advantage, and facilitate the process of data communications, making financial reports efficiently and effectively so that will improve organizational performance. 26 Communications networks, electronic mail, and the Internet are technologies that have been designed by KM in transferring knowledge among people within the organization through a communication process. Communication is a process of delivering information (messages, ideas) from one party to another. In general, communication is done orally or verbally that can be understood by both parties. While communication technology is anything related to the use of tools to process and transfer information from one party to another party. Through communication technology, the communication process undertaken by people in an organizational environment will be effective and efficient. So that in transferring knowledge will be supported by technology available effectively. Effectiveness in communication will affect the performance of the organization, because the people in it will quickly capture the information to be conveyed from both the boss and his colleagues without having to deal directly, as supported by the availability of communication technology (Martin, 2000).

#### 2.5 Innovation

To be able to show satisfactory organizational performance or not, it is necessary to change the organization which is strategic. The workings of organizations that still adhere to the "as is usual" principle are no longer adequate in the future, in the midst of local and domestic even regional and global competition. Organizations that want to improve their productivity and effectiveness, ultimately face future problems, require innovative ways of thinking and acting. Innovation can involve the creation of new products (both in terms of goods or services), new structures, new relationships and even new cultures. (Siagian, 2007; 258).

The main characteristics of the organization of the future, according to Alfin Toffler, the famous futurist, is flexibility, creativity and innovation. (Siagian, 2007: 227). One of the more urgent and important management tasks and functions in the future is to manage strategic changes that characterize such as the integration of organizational strategy with its structure, the technology used and the human resources in it. These factors are adjusted to the demands of the organization's external environment. So it is important in the transformation of the organization that is a complete understanding of organizational transformation, organizational culture, "strategy-culture" matrix and strategic change management. The management of the four issues of organizational change (innovation) and its participatory development and implementation are important to be discussed.

Innovating organizations are the demands of organizational transformation that are no longer merely organizational development when an organization has not been able to display satisfactory performance, or is unable to adapt to such a competitive external environment change, and the scale of the organization is still small and growing rapidly.

In Kusumo, A.R. (2006) suggests that the analysis of factors influencing Product Innovation to enhance the superiority of defining innovation as a corporate mechanism to adapt in a dynamic environment, therefore the company is required to be able to create new ideas, new ideas and offer products that innovative and improved service that satisfy customers.

On the other hand innovation products according to Galbraith, 1973; Schon, 1967 (in Luke and Ferrel, 2000: 240) is defined as the process of using new technology into a product so that the product has added value. Innovation can be done on goods, services, or ideas received by someone as something new, so maybe an idea has emerged in the past, but can be considered innovative for new-found customers. Technological innovation helps companies to build competitive advantage, more effective services and processes, new businesses, and more. It is an organization's responsibility to monitor technological change, train and motivate employees to innovate because technology encompasses all aspects of all organizations.

Schiemann (2011: 65) describes innovation as developing and executing new ideas, encouraging creativity toward better services and products, and dexterity adapting to changing environments or competitive landscapes. Innovation is a form of complex organizational elements because it is not covered in a single department because innovation can occur at the organizational, unit, process, or individual level. The variety of definitions of innovation leads to frequent misinterpretations. It constricts to the meaning of "creativity" to "the creation of something new" and organizational agility at the broadest level.

#### 2.6 Organizational Performance

The existence of an organization in essence to achieve goals. The goal must ultimately be clearly described so that it becomes a benchmark of success or failure in the process of achieving that goal. To oversee the achievement of these goals it becomes the task of the organizational leader, embodied in a performance management. While performance (performance) itself is a drawing of tingka t penc apa what an implementation of an activity / program / policy in order to realize the goals, goals, mission and vision of the organization contained in strategic planning of an organization. Performance measurement is a process of assessing the progress of work against predetermined goals and targets including information on: efficient use of resources in producing goods and services, quality of goods and services (how well goods and services are delivered to customers and to customers satisfied); the results of the activity are compared with the desired intent and the effectiveness of the action in achieving the goal (Robertson in Mahsun, 2006, 25).

#### III. MODEL AND HYPOTHESIS

The main premise of this research is that an organization that has a culture that promotes innovation tends to be innovative, which, in turn, is likely to result in superior company performance achievement. The model is illustrated in Figure 1.Knowledge of technology and skills owned by employees or employees is a factor that can affect the performance of the organization. Knowledge of information technology is a knowledge of how to use or utilize a technology that serves as a provider and access information (Dessler, 1997). One of such information technology is computer. If someone wants to use a computer, it does not have to learn in detail the function of the computer.

Someone just simply learn the basics of computer use only. By just learning the basics a person can already operate the computer. Knowledge of information technology is one of the supporting factors in improving performance. In operation it requires basic knowledge about how to use the computer and access the internet. Skills and knowledge of technology owned by employees will be practiced in carrying out its duties. With high technological knowledge will affect the performance of the organization (Sirait, 2006).

#### H1: Knowledge and skills affect organizational performance

Brown and Starkey (1994) introduced the concept of information awareness to be created within an organization. The opportunity for information resources or the ease of obtaining information is very important for accountants to update the source of information. Regular access or communication networks for expert information or the extent to which technical and professional information is readily available and accessible to accountants is an example of resource information opportunities. With the source of information both from internal and external parties will be able to improve organizational performance. Sources of information within the organization flow vertically and horizontally, information can be used to increase operational effectiveness and efficiency, if the information obtained is good then the organization's performance within the company will also increase, and the opposite.

H2: Source of information affect organizational performance.

Technology is one of the most important aspects in facilitating or as an effective means of KM implementation (Martin, 2000). Today many companies are complementing their organization's needs with information and communication technology (ICT) infrastructure. The availability of information and communication technology (ICT) infrastructure within the organization will have an advantage in improving the provision of information to the decision-making process by management in developing or arranging a system, thus always having synergy in improving organizational performance (Haryanto, 2008). Hypothesis formulation

between the availability of information technology infrastructure and communication with organizational performance.

H3: Infrastructure affects organizational performance.

Organizational behavior assesses the impact of individuals, groups and structures on behavior in organizations with the intention of applying knowledge to improve organizational effectiveness (Robbins, 1996 in Wahyudi, 2008: 13). Behavior within the organization comes from 2 sources: individuals and groups. Group behavior and interpersonal influences also give strength to organizational performance. As the changing business environment becomes more and more intense, creativity and innovation have become the main and routine activities for the company. Han et al (1998) argued that innovation refers to new products or attempts to make new breakthroughs. Samson (1989) divides innovation into three forms: product innovation, process innovation, and managerial system innovation, while Han, et al (1998) classifies innovation into technical innovation and administrative innovation. According to Ellitan and Anatan (2009) innovation can cover four areas: (1) product innovation, (2) process innovation, (3) technological innovation, and (4) HR innovation. The failure of innovation generally stems from the indifference of organizational members to innovation, the organization lacks the right people who are fit for all conditions and times for the achievement of the innovation. Innovation is also influenced by the structure, culture, work climate, and organizational environment (Sutrisno, 2010: 106). There is a relationship between innovation and organizational performance. In product innovation, product innovation process will have direct impact to company's success indicated by increasing of revenue and profit (Ellitan and Anatan, 2009: 4). In terms of process innovation, successful reengineering (process innovation) will improve organizational performance and employee performance (Davidson, 1993). Changes in business processes will bring measurable performance results with market share and or profitability (Kettinger and Grover, 1995). In terms of technological innovation, technological advances will play an important role in achieving long-term profitability (Stacey and Ashton, 1990). The more the company can continue to innovate in its products will also improve the performance of the organization.

H4: Innovation affects organizational performance.

The results of Han et.al (1998) research in the US banking industry suggest that innovation is an intermediary factor between market orientation and performance, as market orientation positively affects growth and profitability / ROA through administrative innovation and technical innovation. Information technology knowledge positively influences business process changes in the banking industry (Nielsen, 2003). Innovation can improve corporate performance in the banking industry (Han et al, 1998). Despande et al (1993) found that innovation is a key determinant of business performance. Subramanian (1997) states that there is a positive significant relationship between multidimensional measure of innovation and organizational performance in the banking industry. This finding is supported by the results of the Han, et.al (1998) study concluding that innovation and performance relationships not only emphasize the separation of technical and administrative innovation contributions to corporate performance but also support the synergy between the two types of innovation to improve overall company performance. Likewise Avlonitis et al (2001) suggests that there is a positive relationship between radical innovation and company performance. The results of this study are reinforced by the findings Nijssen et al (2004) which states that service innovation radically positively affect the company's performance. Rachmat (2006) in his research in the hospitality industry found that innovation has a significant positive effect on business performance. Research Cahyono, Lestari and Yusuf (2007) in manufacturing companies in Indonesia found that innovation has a significant effect on company performance. Abir and Cokri's (2010) research on the banking industry found that innovation had an effect on the company's performance. The research of Chih, Huang and Yang (2011) in the service industry found that innovation capacity had a positive effect on performance. Companies that have knowledge with bridged innovation will result in optimal organizational performance so as to make the company remain successful.

H5: Knowledge and skills affect organizational performance with innovation as mediation.

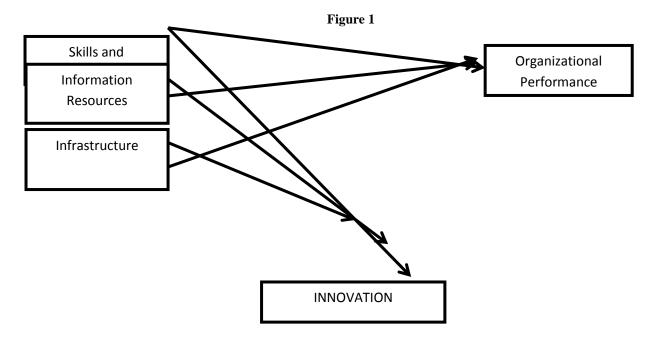
Innovation is an important force in improving organizational performance and can drive economic growth and development (Agbim et al., 2013). Companies that have a good infrastructure is a company that can improve its performance so as to generate profitability for the company, this can be done with innovation within the company. Given the good infrastructure will be able to facilitate the provision of reliable and reliable experts. With the company will be able to achieve the desired goals. Good service quality supported by good infrastructure will improve organizational performance. To improve the infrastructure, a sustainable innovation strategy is needed for corporate sustainability. The existence of innovation determines the success of the entity (Bontis et al., 2002. Hamel, 1999). Innovation is defined as the process of developing products and services to or to build new production and operating systems to respond to customer needs

H6: Infrastructure affects organizational performance with innovation as mediation.

The relationship between information sources and innovation, as well as the relationship between organizational performance innovation developed based on RBV theory. In RBV theory it is said that knowledge is the main asset other than the tengible in an organization. The success of an organization depends on the management of knowledge in the face of environmental change. The ability to adapt to changing

environments will enhance innovation and organizational performance. Increased corporate performance can not be separated from the source of information both internal and external sources of information. Both sources can improve company performance. A company that has a high innovation will not be easily affected from bad information. Companies that have a good source of information are companies that can access the required data whenever desired and properly documented. By leveraging the innovations it has, the company can make a way for it to be easily accessible so that any data that is required will be easy to obtain. This is what will improve the performance of the company.

H7: The source of information affects organizational performance with innovation as mediation. Figure 1 below presents this research model.



## IV. RESEARCH METHODOLOGY

Data from this study were obtained from questionnaires distributed to employees of technology users working at PT. Housing Development, Tbk. Employees are selected because they are the parties directly involved with the use of technology systems at the company. The sampling procedure is done by convenience sampling, is a technique of determining the sample that is done not randomly, but appoint the company that is expected to provide information related to this research. A total of 70 responses were obtained for this study.

There are no studies or literature that examines ICT and relationship with company performance with innovation as intervening variable, especially at PT. Housing Development. And there are only a few studies that examine the relationship between the variables that exist in this study with information systems. Therefore, the results of this study may be new findings in academia. Independent Variables: The questionnaire used contains questions to measure the variables in this study. In the questionnaire, the question of these independent variables is in the third section. ICT is measured by a questionnaire developed by (Davenport and Prusak, 1998; Edwards et al., 2005; Stankosky, 2005; Syed-Ikhsan and Rowland, 2004). Instruments ask individuals to show their agreement or disagreement with 10 questions. Response options range from (1) strongly disagree to (5) strongly agree. Mediation Variables: The mediation variables in this study were measured using questionnaires. The question of this moderation variable is in the first and second part of the questionnaire. User expertise is measured by a questionnaire developed by Mafabi (2015). Through the 15 questions in sections one and four of the questions there are two parts of the questionnaire asking individuals to show their agreement or disagreement about whether the company has already innovated its benefits for the responder. Response options range from (1) strongly disagree to (5) strongly agree. Dependent Variables:. Organizational performance was measured by a questionnaire developed by (Davenport and Prusak, 1998; Edwards et al., 2005; Stankosky, 2005; Syed-Ikhsan and Rowland, 2004). Questions in the questionnaire asked individuals to demonstrate their agreement or disagreement with 5 questions that reflect on organizational performance. Response options range from (1) strongly disagree to (5) strongly agree.

# V. RESULTS

# **4.1 Profile of respondents**

Information on the position, years of service, the last education of the respondents are presented in Table I. Position in the work of the respondents in the study were dominated by a certain position. Most respondents have quite a varied work experience that is between 1 to 34 years.

Table I. Profile of Respondents

	N	%
Posisi		
Staff	40	57,14
Asisten Manager	5	7,14
Manager	25	35,71
Lama Bekerja		
<1 thn	4	5,71
1-5 thn	29	41,42
5-10 thn	18	25,71
>10 thn	18	25,71
JenisKelamin		
Laki-Laki	56	80
Perempuan	14	20
PendidikanTerakhir		
SMA	11	15,71
D1/D2/D3/D4	4	5,71
S1	53	75,71
S2	2	2,85
Other	0	0,00

Table II. Factor analysis and reliability analysis

	Outer Loading	Reliability
Product innovation is very important to be able to compete in environment of SME	0,587	0,885
Knowledge, experience and expertise in information technology are important in developing the company's innovative performance.	0,875	
The interaction between education, experience, and technical skills in entrepreneurship orientation can improve the company's innovative performance.	0,863	
Trade offices facilitate SME through training to further update information and communication technology.	0,903	
Information technology and communication training is very useful in developing an innovation product.	0,627	
I feel the training makes it easy for me to improve the company's innovative performance.	0,746	0,934
Knowledge of information and communication technology makes SMEs more productive in creating superior products.	0,917	

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Ambidexterity (the ability to exploit existing products while exploring new ones) is essential for improving business continuity both in the short and long term.	0,862		
The company's ability to interact with more SMEs helps it to be innovative.	0,908		
Increased entrepreneurial orientation affects the ability of SME to become more innovative.	0,854		

# 4.2 Outer Loading, Reliability, AVE

While Table II is the result of factor analysis and reliability coefficient. Variable reliability testing using composite reliability technique. To see whether or not a reliable measuring instrument is done through the coefficient of reliability with the value of reliability coefficient must be greater than 0.7.

Also in this Table it is also shown that all proxies have an outer loading factor value greater than 0.5. It can be concluded that all indicators are eligible to be an indicator that can reflect each of the corresponding variables.

The measurement of discriminant validity is to compare the average Average Variance Extracted (AVE) square value of each construct with the correlation between the other constructs in the model. Recommended AVE value must be greater than 0.5. In Table II shows the AVE value of each variable greater than 0.5, so it can be concluded that the variables used are valid and reliable.

Table II. The Result of the Outer Loading, Reliability, AVE

	Tuble II. The Result of the outer I	Outer Loading	Reliability	AVE	Conclusion
PIC 1	All employees are given sufficient training internally to use the computer at the company	0,921			Significant
PIC 2	All employees are adequately trained internally to use ICT (software) tools at the company	0,925	0,924	0,801	Significant
PIC3	Knowledge of information and communication technology at the company is easy to share	0,837			Significant
IFT1	The company has the latest ICT infrastructure that can help the creation and sharing of knowledge	0,932			Significant
IFT2	ICT can increase or accelerate the completion of work to seek information	0,202			Significant
IFT 3	ICT facilitates employees in doing their daily work	0,917	0,771	0,584	Significant
SI 1	Knowledge / Information created and stored in paper documentation can be easily accessed, shared, and transferred	0,843			Significant
SI 2	Knowledge / Information created and stored in electronic documentation can be easily accessed, shared, and transferred	0,940			Significant
SI 3	Knowledge / Information from individuals can be shared and transferred through formal discussions / meetings without any difficulty	0,906	0,943	0,806	Significant

SI 4	Knowledge / Information from individuals can be shared and transferred through informal discussions / meetings without difficulty	0,898			Significant
INO1	The company redesigned with various strategies to achieve company goals	0,884			Significant
INO2	The company reviews the department's functions on the organization of the company	0,904			Significant
INO3	The company does not review the performance plan on the company's organization.	0,862			Significant
INO4	The company improves the company's system in handling organizational risks	0,854			Significant
INO5	The company has failed to improve the customer service time required	0,734			Significant
INO6	The company redesigned the workflow using information communication technology	0,688	0,927	0,646	Significant
INO7	The company designed the internet to provide services to the company	0,663			Significant
OP1	The company has a good performance in improving the effectiveness of the production process	0,779			Significant
OP3	The company has a good performance in improving customer satisfaction	0,742			Significant
OP4	The company has a good performance in improving the quality of customer service	0,847	0,930	0,655	Significant
OP5	The company has a good performance in improving the quality of products / services	0,858			Significant
OP6	The company has a good performance in improving the functionality of products / services	0,820			Significant
OP7	The company has a good performance in increasing revenue growth	0,847			Significant
OP8	The company has a good performance in increasing margin profit	0,763			Significant

# **Hypothesis Testing**

The hypothesis has been put forward to be tested using a model Structural Equation Model (SEM) analysis model Partial Least Square (PLS). PLS analysis using statistical software was tested with WarpPLS 5.0 for windows to investigate the influence of examine the effect of knowledge and skills, information resources, and infrastructure on organizational performance and to examine the effect of innovation as a mediating variable between ICT on organizational performance

Table III Hypothesis Testing

Direct Effect Test Results

Brieft Effect Test Results			
Path	Path Coefficient	P-Value	
PIC →OP	0,36	< 0,001	
IFT →OP	-0,058	0,31	
$SI \longrightarrow OP$	0,111	0,166	
INO →OP	0,172	0,06	

Indirect Effect Test Results (Sobel Test)

Path	Path Coefficient	VAF
$PIC * INO \longrightarrow OP$	0,29137	44,731%
$SI * INO \longrightarrow OP$	0,238422	68,233%
$IFT * INO \longrightarrow OP$	0,289728	83,320%

#### VI. DISCUSSION AND CONCLUSSION

The result of hypothesis test 1 states that ICT knowledge and skill influence to organizational performance. The results of this study are in line with research conducted by Dessler (1997). Knowledge of technology and skills owned by employees or employees is a factor that can affect the performance of the organization. Knowledge of information technology is a knowledge of how to use or utilize a technology that serves as provider and accessing information. Knowledge of information technology is one of the supporting factors in improving performance. In operation it requires basic knowledge about how to use the computer and access the internet. Skills and knowledge of technology owned by employees will be practiced in carrying out its duties.

Hypothesis 2 states that the source of information does not affect the performance of the organization. This is in line with research conducted by Mulyadi (1997) which states that the source of information is not the main thing that affects the performance of the organization. Source of information has no effect because knowledge as the organizer's driving resources, thus becoming a competitive and competitive organization. Organizational development, whether business or public organization to enhance competitive competitiveness, is rife using knowledge asset approach.

Hypothesis 3 states that infrastructure has no effect on organizational performance. The results of this study support the results of research RantiOktari (2011) which states that the utilization of infrastructure has no effect on organizational performance. However, the results of this study do not support the results of research Rahadi (2007) which indicates that infrastructure has a significant effect on organizational performance. Infrastructure must be well provided by the organization to support performance. However, the presence of infrastructure in large or small quantities must be able to be utilized well by the organization to improve its performance.

Hypothesis 4 states that innovation affects organizational performance. The results of this study are in line with research conducted by Stacey and Ashton (1990). Organizational behavior assesses the impact of individuals, groups and structures on behavior in organizations with the intention of applying knowledge to improve organizational effectiveness (Robbins 1996, Wahyudi, 2008: 13). innovation generally stems from the indifference of organizational members to innovation, the organization lacks the right people who are fit for all the conditions and times for the achievement of the innovation. Innovation is also influenced by the structure, culture, work climate, and organizational environment (Sutrisno, 2010: 106). There is a relationship between innovation and organizational performance. In product innovation, the process of product innovation will directly affect the company's success indicated by the increase in revenue and profit.

Hypothesis 5 states that innovation capable of mediating the influence of knowledge and skills on company performance is partial mediation. This shows the source of skills will enhance the ability of individuals in exploring the ideas they have. Ability in exploring ideas will foster innovation within the company, so that these innovations can help companies in improving company performance. The results of this study are in line with research conducted by Chih, Huang and Yang (2011) in the service industry found that innovation capacity has a positive effect on performance.

Hypothesis 6 states that innovation is not capable of mediating the impact of infrastructure on company performance. This indicates that Infrastructure owned by companies either big or small must be able to be utilized well by company to improve company performance. This indicates that the number of infrastructure owned by the company resulted in not improving the company's progress to improve company performance and innovation. This is in line with research conducted by (Agbim et al., 2013) which states that innovation is an important force in improving organizational performance and can promote economic growth and development. Companies that have good infrastructure is a company that can improve its performance so as to generate profitability for the company, this can be done with the innovation in the company, but the amount of infrastructure owned is not able to improve the company's performance significantly.

Hypothesis 7 states that innovation is not able to mediate the influence of information sources on company performance. This suggests that informal sources in the information system will not grow ideas that can grow for the company's progress. Innovation built on the source of knowledge resulted in the source of information not become a major element for the development of innovation in order to support the improvement of organizational performance. Yousif Al-Hakim and Hassan (2013) stated that information sources have no direct effect on organizational performance and also indirectly influence through innovation as a mediating variable.

Conclusion of this research this study aims to determine how the influence of ICT (knowledge and skills, information resources, and infrastructure) on organizational performance. In addition, whether innovation as mediation can strengthen or weaken ICT on organizational performance. In this study we found a positive result between knowledge and skills on organizational performance. This suggests that the higher levels of knowledge and skills in everyone in the organization will improve organizational performance. Sources of information do not affect the performance of the organization, the source of information does not affect because of knowledge as an organizational driving resources, thus becoming a competitive and competitive organization. Infrastructure has no effect on organizational performance, because the infrastructure must be well provided by the organization to support performance. However, the presence of infrastructure in large or small quantities must be able to be utilized well by the organization to improve its performance. Innovation affects the performance of the organization, because the product innovation, product innovation process will directly affect the company's success indicated by the increase in revenue and profit. Innovation is able to mediate the influence of knowledge and skills on company performance is partial mediation. This shows the source of knowledge will increase the ability of individuals in exploring the ideas they have. Ability in exploring ideas will foster innovation within the company, so that these innovations can help companies in improving company performance. However, innovation is not able to mediate the impact of infrastructure on company performance. This indicates that Infrastructure owned by companies either big or small must be able to be utilized well by company to improve company performance. This indicates that the number of infrastructure owned by the company resulted in not improving the company's progress to improve company performance and innovation. In addition, innovation is not able to mediate the influence of information resources on company performance. This suggests that informal sources in the information system will not grow ideas that can grow for the company's progress. Innovation built on the source of knowledge resulted in the source of information not become a major element for the development of innovation in order to support the improvement of organizational performance.

#### **REFERENCES**

- [1] Agbim, K.C., G.O. Oriarewo, dan A.E. Omattah. 2013. An Exploratory Study of the Relationship between Innovation and Change Management. International Journal of Scientific and Research Publications, Vol. 3, Issue 6, June 2013.
- [2] Aldi, B. Elnath. 2005. MenjadikanManajemenPengetahuanSebagaiKeunggulanKompetitif Perusahaan MelaluiStrategiBerbasisPengetahuan. JurnalStudiManajemendanOrganisasi (JSMO), Volume 2 (Nomor 1). pp. 58-68. ISSN 1693-8283.
- [3] Bastian, Indra. 2001. AkuntansiSektorPublik di Indonesia. EdisiPertama. Yogyakarta: BPFE.
- [4] Bontis, N., M. M. Crossan, dan J. Hulland. 2002. Managing an Organizational Learning System by Aligning Stocks And Flows. Journal of management studies 39(4): 437-469.
- [5] Brown and Starkey. 2000. The Effect of Organizational Culture on Communication.and Information. Journal of Management Studies.
- [6] Chong. 2011. KM Implementation in a public sector accounting organization: an emprical investigation. Journal of Knowledge Management Vol. 15 Iss 3 pp. 497-512.
- [7] Davenport, T.H. and Prusak, L. (1998), Working Knowledge: How Organizations Manage What They
- [8] Davenport, T.H. and Prusak, L. (1998), Working Knowledge: How Organizations Manage What They
- [9] Davenport, T.H. and Prusak, L. (1998), Working Knowledge: How Organizations Manage What They
- [10] Davenport, T.H. and Prusak, L. (1998), Working Knowledge: How Organizations Manage What They
- [11] Davenport, T.H. and Prusak, L. (1998), Working Knowledge: How Organizations Manage What TheyKnow, Harvard Business School Press, Boston, MA
- [12] Davis, Fred D, Bagozzi, Richard P, &Warshaw, Paul R. 1989. User Acceptance of Computer Technology: A Comparison of Two Theoretical Models. Management science Vol.35No. 8 pp. 982-1003.
- [13] Davis, Fred D. 1989. Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. MIS quarterly No. pp. 319-340.
- [14] Dessler, Gary. 1997. Management SumberDayaManusia. Terjemahan. Benyamin Molan. EdisiBahasa Indonesia. PT Prenhallind. Jakarta.
- [15] Dessler, Gary. 1997. Management SumberDayaManusia. Terjemahan. Benyamin Molan. EdisiBahasa Indonesia. PT Prenhallind. Jakarta.
- [16] Galbaraith, J. 1973. Designing Complex Organizations. Reading, MA: Addison-Wesley.
- [17] Grigg, N. Dan Fontane, D. G. 2000, Infrastructure System Management & OptimazationInternasional. Civil Engineering DepartementDiponegoro University.
- [18] Haryanto. 2008. Pembangunan SistemInformasiBerbasisWeb DiSekolahMenengahAtasNegeri 1 CibadakSukabumi. Bandung.
- [19] Han, J.K., N. Kim, and RK Srivastava. 1998. Market Orientation and Organizational Performance: Is Innovation a Missing Link? Journal of Marketing 62 (4) 30-45.

- [20] Justin T. Sirait. 2006. MemahamiAspek-AspekPengelolaanSumberDayaManusiadalamOrganisasi. GramediaWidiasarana Indonesia, Jakarta.
- [21] Kathleen M. Eisenhardt and Jeffrey A. Martin. 2000. Dynamic Capabilities: What Are They?. Strategic Management Journal Vol. 21 No. 10.
- [22] KM Implementation in a Public Sector... (PDF Download Available). Available from: https://www.researchgate.net/publication/220363416\_KM\_Implementation\_in\_a\_Public\_Sector\_Accounting\_Organization\_An\_Empirical\_Investigation [accessed May 25 2018].
- [23] Know, Harvard Business School Press, Boston, MA
- [24] Know, Harvard Business School Press, Boston, MA
- [25] Know, Harvard Business School Press, Boston, MA
- [26] Know, Harvard Business School Press, Boston, MA
- [27] Kusumo, A.R. (2006). AnalisisFaktorfaktor yang MempengaruhiInovasiProdukuntukMeningkatkanKeunggulanBersaingdanKinerjaPemasaran (StudipadaIndustri Batik SkalaBesardanSedang di Pekalongan). Thesis. Semarang. UniversitasDiponegoro
- [28] Laudon, Kenneth C, Laudon, Jane P, Brabston, Mary Elizabeth, Chaney, Margo, Hawkins, Lisa, & Gaskin, Shelley. 2012. Management Information Systems: Managing the Digital Firm, Seventh Canadian Edition (7th: Pearson.
- [29] Liebowitz, Jay.(1999). Knowledge Management Hand Book. CRC Press.
- [30] Mahsun, M. 2006. Pengukuran Kinerja Sektor Publik. Edisi Pertama. BPFE. Yogyakarta.
- [31] Mahsun, Mohamad, Sulistiyowati, Firma danPurwanugraha, Heribertus Andre. 2006. AkuntansiSektorPublik. Yogyakarta: BPFE
- [32] O'Brien, Tony. 2015. 'Accounting' for Data Quality in Enterprise Systems. Procedia Computer Science Vol.64No. pp. 442-449.
- [33] Panggabean, MutiaraSibrana. 2002. ManajemenSumberdayaManusia. Jakarta: Ghalia Indonesia.
- [34] Robert F. Hurley and G. Tomas M. Hult. 1998. Innovation, Market Orientation, and Organizational Learning: An Integration and Empirical Examination. Journal of Marketing Vol. 62, No. 3 (Jul., 1998), pp. 42-54.
- [35] Schiemann, William A. (2011). Alignment, Capability, Engagement: Pendekatan Baru Talent Management untuk Mendongkrak Kinerja Organisasi. Jakarta: ppm.
- [36] Schon, D. 1972. Beyond the Stable State. London: Maurice Temple Smith.
- [37] Siagian. 2007. ManajemenSumberDayaManusia. Jakarta: PT. BumiAskara pp.258.
- [38] Siagian. 2007. ManajemenSumberDayaManusia. Jakarta: PT. BumiAskara pp.227.
- [39] Stankosky, M.A. (2005), "Advances in knowledge management: university research toward anacademic discipline", in Stankosky, M. (Ed.), Creating the Discipline of Knowledge Management The Latest in University Research, Elsevier Butterworth Heinemann, St Louis, MO.Syed-Ikhsan, S.O.S. and Rowland, F. (2004), "Benchmarking knowledge management in a publicorganization in Malaysia", Benchmarking: An International Journal, Vol. 11 No. 3, pp. 238-66.
- [40] Syed Ikhsan& Rowland. 2003. Knowledge management in public organisation: a study on the relationship between organisational elements and the performance of knowledge transfer. Journal of Knowledge Management, Forthcoming.