# IT Relatedness Effect on IT Outsourcing Strategies and Knowledge Management on Organizational Performance Impact on Provincial Government Agencies Papua

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**Abstracts:** ***The use of information technology within the organization must consider the limited resources such as data, application systems, technology, facilities and human resources. Resource limitation is a major factor in your need f or governance that regulates the use of information technology in organizations. The purpose of this study was to examine the influence of IT Relatedness on IT Outsourcing Strategy and Knowledge Management Capability and its influence on the implementation of the performance improvement of governance in Papua. This study took place at the Government District / City and Bureau / Agency / Office of the Autonomous Province in the province of Papua. The populations in this study are all institutions in the province of Papua, the sample size is 106 institutions autonomous province and regency /city in the province of Papua, the sample unit is 2-3 respondent search agencies. An analysis technique in this research is the analysis path. From the above results show that54.54% of Organizational Performance is determined by the influence of IT Relatedness, Outsourcing Strategy, and Knowledge Management. From the results of path analysis showed that IT Relatedness effect on Outsourcing Strategy, Knowledge Management and Organizational Performance. This indicates that the higher the value of IT Relatedness effect on Outsourcing Strategy, Knowledge Management and Organizational Performance, it will lead to higher Outsourcing Strategy and Knowledge Management, and Organizational Performance. Strategy more influenced Outsourcing to Knowledge Management and Organizational Performance. This suggests that the high value of IT Outsourcing Strategy will result in the value of Knowledge Management and Organizational Performance. On the other hand, there is no significant affect on IT Outsourcing Strategy to Organizational Performance. This illustrates that however high the value of Outsourcing Strategy, have an impact on the level of Organizational Performance.***

**Keywords:** Information Technology, Organizational Performance

## 1. Introduction

The use of information technology within the organization must consider the limited resources such as data, application systems, technology, facilities and human resources. Resource limitation is a major factor in your need for governance that regulates the use of information technology in organizations.

The development process starts with measuring the maturity level of an organization's information technology today. There is no denying that this time, the role of information technology is important to the survival of an organization, with a core business that is directly or indirectly dependent on the reliability of the management of information technology (information technology /IT). With the information management and technology support (also referred to as an information system) will optimally help the organization in achieving its objectives.

Knowledge (knowledge) is a vital part in the social life of modern man. In addition, in an organization, the role of knowledge possessed as a whole can improve the competitiveness and efficiency of the organization. In the information age it is important to realize that the flow of knowledge into and out of the organization took place very quickly. The use of information technology and telecommunications, dissemination and utilization of knowledge revolution is not a strange thing. Many organizations today adopt and implement a knowledge management system as a means to support the processes associated with the empowerment of knowledge possessed.

Organizations that want to compete in a global era require external cooperation in the field of information technology in line with the organization's strategy to focus on core competition (core competencies) has. Outsourcing is considered as a means to reduce costs, reduce job that allows a company to concentrate on a number of important aspects of the development and use of information technology, and access to information would be too costly to be assured by the organization. In outsourcing activities, an organization associated with the need for information technology. Whereas the development of information technology continues to evolve rapidly, one of the most needed by the company is computers used to find information, process and even to present the data. Only by concentrating on its core capabilities related organizations to create products or services that have a competitive advantage (Indradjit, 2000). Akomode, et al., (1998) says that the core competence or core activities present a performance offered by an organization in the form of long-term competitive advantage, which is protected and controlled by management policies.

Based on the above, it is the goal of this study was to examine the influence of IT Relatedness on IT Outsourcing Strategy and Knowledge Management Capability and its influence on the implementation of the performance improvement of governance in Papua.

## 2. Theory

Technology refers to all forms of means or methods used to create, store, modify, and use the information in any form (Mc. Keown, 2001, inSuyanto, 2005). Information technology is a general form that describes any technology that helps to produce, manipulate, store, communicate, and orstoring information (Williams, Sawyer, 2005 inSuyanto, 2005). Information technology is intangible resources owned by the firm (Hit, Ireland, Hoskisson, 2001) and is strategic organizational resources (Wade and Hulland, 2004 in Tanriverdi, 2006). In addition, (Aji, 2005 in Lester, 2007) explains that information technology is the use of computer technology as a primary device to process data into useful information. Therefore, the company that operates business units in the industry has the opportunity to take advantage of information technology synergies across units using the resources and information technology management processes between business units concerned (Tanriverdi, 2005 and Baiq Anggun, 2007). Researchers who support the influence between variables:

1. Relatedness information technology influence on the strategy of IT outsourcing, several studies conducted by Lee (1996), Nichols (2002); Chenand Perry (2003) and Reyesetal. (2005).
2. IT Relatedness directly influence the knowledge management capabilities, some of the results of research conducted by Brown and Magill (1998), Brown (1999); Alaviand Leidner (2001); Schultze and Leidner(2002). While an indirect influence on knowledge management through IT Outsourcing is the results of his research on the study of literature by Behn R., (2008); Barros CP, (2007), Berman(2008).
3. IT Relatedness direct influence on the performance of the organization, from the research that shows this relationship is Kelley (1994), Siegel and Griliches (1992) in Devaraj and Kohli (2003); Hitt and Brynjoltsson (1995), the Council and Min(1997) in Devaraj and Kohli (2003). While IT Relatedness relationship in directly through knowledge of performance management capabilities, such as those studied by Barua and Mukhopadhyay (2000); Sambamurthyetal., (2003); Nengah (2005) and Tanriverdi (2005). While looking at the effect in directly through strategic IT outsourcing research findings from the literature study by Lee, Jae-Nam. (2006); Curley, Martin (2004); Chicester, Wiloy (2000); Barta, Peter; Richard Zabow (2003).
4. Influence of IT outsourcing strategies directly to organizational performance. Some research suggests that outsourcing strategies directly affect the performance of the organization, the research conducted by Ceris (2005);Lee, Jae-Nam. (2006); Murthy, S.(2004); Payton, F.C. and R. Handfield (2003); Beulen, E. and P. Ribbers (2003); Vitharana, P. and R. Dharwadkar (2007). While looking at the effect in directly through knowledge management capability of the results of his research literature study by Curley, Martin (2004); Delporte-Vermeiren, Dominique JE (2003); Bent, Peter; Matthew T. Furton (2003).
5. Influence of knowledge management capabilities to Performance Organization. The results of studies showing this relationship is by Barua and Mukhopadhyay (2000); Sambamurthyetal., (2003); Nengah (2005) and Tanriverdi (2005), Kelley (1994), Siegel and Griliches (1992) in Devaraj and Kohli (2003); Hitt and Brynjoltsson (1995), the Council and Min (1997) in Devaraj & Kohli (2003).

## 3. Material and Method

This study took place at the Government District/City and Bureau/Agency/Office of the Autonomous Province in the province of Papua. The choice of location is intended, first of Papua (not including West Papua Province) is a province consisting of26 districts and cities that are implementing the Special Autonomy Law21, 2001 in which all government agencies currently strengthening institutional capacity building so that each experienced significant growth. Both accordance with Presidential Decree No. 3 of 2003 on National policy and strategy development of e-government, where it has been mandated to every Governor and Regent/Mayor to take the concrete steps necessary in accordance with the duties, functions and their respective authorities for the implementation of e-government development nationally. Third selection of objects of this study in order to describe and explain the problems and theories studied. Fourth ease of access to data needed.

The population in this study is all institutions in the province of Papua, the sample size is 106 autonomous agencies and provincial districts/ municipalities in the province. The unit of analysis (respondents) in this study is representative of each agency of the District/Municipal and Provincial agencies that have autonomous responsibility and competence in managing and implementing the process of the implementation of information and communication technology, which is expected to provide valid information as research data, namely between 2-3respondentseach agency to assess the research instruments.

Analysis techniques in this research are path analysis approach to testing mediation Sobel Test between variables. In accordance with the objectives of the study were carried out can be categorized as an explanatory research, i.e. research that aims to find an explanation of the causal relationships between variables or the influence of other variables through hypothesis testing (Umar, 2004). The variable in this study is the variable IT Relatedness, Outsourcing Strategy, Knowledge Management, and Organizational Performance. Path analysis model based on the following conceptual framework:

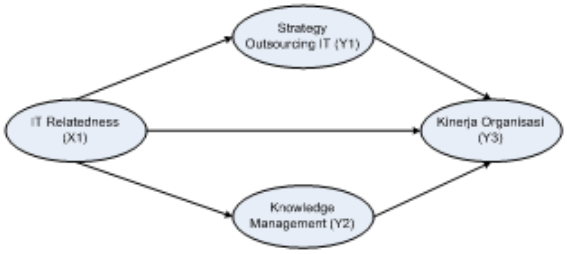


**Figure 1:** Conceptual framework

Constructs are built like the diagram above lines can be divided into three groups: exogenous construct consisting of IT Relatedness (X1), and the endogenous construct consisting of Outsourcing Strategy variables (Y1), Knowledge Management (Y2), and Organizational performance (Y3). Exogenous constructs (exogenous constructs), known also as the source variable is a variable that is not predicted by the other variables in the model. Endogenous constructs (endogenous constructs), a variable whose value is determined in the model. Furthermore, the picture above, can also be expressed in the form of the following equation:

Y1=P1X1+ε1
Y2=P2X1+ ε2
Y3=P4X1 + P5Y1 + P6Y2 +ε3

Step Two: The examination of the assumptions underlying path analysis, among others: Relationships in the model are linear and additive. Examination of linearity assumption can be seen from the plot remnant. According to Gujarati (1991) one purpose of the examination is to determine whether a remnant variable in the model is probably not linear. If the remnant were scattered on the value prediction shows a random pattern, the data do not indicate to abnormal, so the relationship between variables can be said to be linear. Data models any residual normal spread. The normal distribution is a theoretical distribution and a continuous random variable. To test whether the sample is a kind of normal distribution we used Kolmogorov Smirnov test Goodness of fittest with significance testing criteria if the number (Sig.)> 0.05, then the data were normally distributed.
The variables measured without error (valid and reliable).

The third step, Path coefficient calculation (Parameter Estimation). Solimun (2002), Riduan and Kuncoro (2007) state that essentially path coefficient is a standardized regression coefficient (Beta Coefficient) is regression coefficients were calculated from the data base that has been set in raw numbers or Z-score (the data set to the value mean =0 and standard deviation=1). Standardized path coefficient (standardized path coefficient) is used to describe the influence of the independent variables (exogenous) to the effect of other variables as the dependent variable (endogenous). According Supran to (2004) beta coefficient of Yon X (Byx) will be equal to the coefficient of X on Y (Bxy), also the same as the correlation coefficient (rxy). So that path coefficient calculation using a correlation matrix, or by looking at the standardized regression coefficients (beta coefficients), essentially on the same value.

The fourth step, to test the significance of the effect is in the path analysis. Testing the significance of direct influence by consulting with at valuetable. If that value<t table value then H0 is accepted Ha rejected, or no significant direct effect of the independent variables to the dependent variable. Conversely, if the value of t count > t table value then H0 is accepted or rejected Hano significant direct effect of the independent variable on the dependent variable.

Step Five: checks the validity of the model. Examination of the validity of the model can use the coefficient of determination of total. Total data variability can be explained by the model is measured by the formula:R2m = 1 –P2e1 P2e2….P2ep.

Interpretations of the same interpretation R2 mare coefficient of determination (R2) in regression analysis. Model as valid if it has a high precision and accuracy. Measure of the accuracy of the model is the coefficient of determination (R2) with values rangingfrom0 to 1.In this study, examination of the validity of the model is using a rule of theory trimming.

## 4. Result

Validity and Reliability Testing Research Instruments. The following tables are presented testing the validity and reliability of the research instrument for each variable:

**Table 1:** Validity and Reliability Test Results

| *Item* | *X1* | | *X2* | | *X3* | | *Y* | |
|---|---|---|---|---|---|---|---|---|
| 1 | X11 | 0.720 | X21 | 0.815 | X31 | 0.813 | Y11 | 0.730 |
| 2 | X12 | 0.698 | X22 | 0.768 | X32 | 0.776 | Y12 | 0.698 |
| 3 | X13 | 0.765 | X23 | 0.788 | X33 | 0.834 | Y13 | 0.671 |
| 4 | X14 | 0.748 | | | | | Y14 | 0.722 |
| Cronbach | 0.711 | | 0.698 | | 0.733 | | 0.659 | |

From the table above shows that all the values of each indicator and item correlations were above0.3. Thus, the overall indicators and items have valid questions. While the Cronbach alpha values obtainedfromabove0.6forall the variables so that it can be concluded that the instrument was valid research data.

### 4.1. Factor Analysis Result

Factor loading values indicate the weight of each indicator as a measure of their latent variables. Indicators with the greatest factor loading indicate that the indicator variable as a measure of the strongest (dominant).The results of factor analysis are presented as follows:

**Table 2:** Loading Factor Each Variable

| *Indicator* | *X1* | | *X2* | | *X3* | | *Y* | |
|---|---|---|---|---|---|---|---|---|
| 1 | X1.1 | 0.728 | X2.1 | 0.821 | X3.1 | 0.802 | Y1.1 | 0.695 |
| 2 | X1.2 | 0.722 | X2.2 | 0.740 | X3.2 | 0.775 | Y1.2 | 0.744 |
| 3 | X1.3 | 0.743 | X2.3 | 0.810 | X3.3 | 0.845 | Y1.3 | 0.682 |
| 4 | X1.4 | 0.742 | | | | | Y1.4 | 0.707 |

In IT Relatedness variable(X1), four indicators namely: Infrastructure (X1.1), Process Development Strategies (X1.2), HR Process IT (X1.3), and Process Management Vendor (X1.4). From the highest factor loading values

obtained that IT HR Process indicators (X1.3) form the most dominant variable Information Technology Relatedness.

In IT Outsourcing Strategies variables(X2), the three variables, namely Integrity Level (X2.1), Allocation Control (X2.2), and the Performance Period (X2.3). From the values obtained the highest factor loading indicator Integrity Level (X2.1) most dominant variable form of IT Outsourcing Strategy.

In variable knowledge Management (X3), three indicators namely Management Capabilities to manage organizational knowledge resources for the product (X3.1), Management Capabilities to manage knowledge resources to organizational customers(X3.2), and the ability of management to manage the resources of the organization's knowledge managerial (X3.3). From the values obtained the highest factor loading indicator Management Capabilities to manage knowledge resources to organizational Managerial (X3.3) most dominant variable form knowledge Management.

In the variable Organizational Performance Government (Y), four indicators namely: Financial Performance (Y1.1), Performance Services (Y1.2), Internal Business Process Performance (Y1.3), and Performance Learning and Growth (Y1.4). From the highest factor loading values obtained by the Service Performance indicators (Y1.2) form the most dominant variable Governing Organizational Performance.

Testing Assumptions in Path Analysis

Linearity testing the relationship between the variables in this study using the Curve Fit shows that the whole effects in a linear model. Next to test the assumption of normality in the residuals of each equation in path analysis. Sig Kolmogorov Smirnov for all three equations each for 0584, 0899, and 0.918 semuanya greater than0.05, so the residual normality assumption fulfilled.

**4. 2. Path Analysis Result**

The first step in the analysisis the path of testing goodness of fit model. The coefficient of determination is equal to54.54% of total. This indicates that data variability can be explained by the model is equal to54.54%, or in other words, the information contained in the data54.54% can be explained by the model. While the44.6% explained by other variables (which is not contained in the model).

Hypothesis testing is performed by T-statistics on each of the direct influence of the partial path. The result of the analysis is complete, the results of the analysis contained in the path, can be seen in Appendix 3. The following table presents the results of hypothesis testing direct influence.

**Table 3:** Testing Results the Direct Path Model

| *Variable Relationships* | *Coefficient* | *T-Statistics* | *P-value* | *Conclusion* |
|---|---|---|---|---|
| IT Relatedness to Strategy Outsourcing | 0.273 | 3.237 | 0.002 | Significant 5% |
| IT Relatedness to Knowledge Management | 0.216 | 3.154 | 0.002 | Significant 5% |
| IT Relatedness to Organizational Performance | 0.133 | 1.696 | 0.093 | Significant 10% |
| Strategy Outsourcing to Organizational Performance | 0.142 | 1.639 | 0.104 | Non Significant |
| Knowledge Management to Organizational Performance | 0.561 | 5.230 | 0.000 | Significant 5% |

Graphically path analysis testing results are presented as follows:

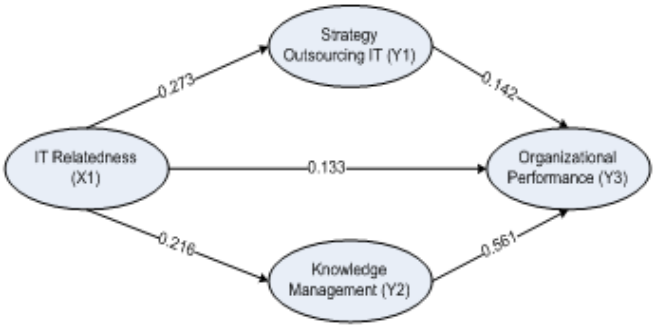


**Figure 2:** Path Analysis Result

According to the table and figure above, the results of hypothesis testing direct influence in the in model are as follows:

1. Testing IT Relatedness influence between variables(X1) of the Out sourcing Strategy (Y1) path coefficient values obtainedfor0273with ap-valueof0.002.Becausep-value<5%, then there is sufficient evidence to accept the hypothesis that "IT Relatedness(X1) affect the Outsourcing Strategy(Y1)". Because the path coefficient is positive, it can be a positive relationship between the two. The higher IT Relatedness(X1) will result in the higher Outsourcing Strategy(Y1).
2. Testing IT Relatedness influence between variables(X1) on Knowledge Management (Y2) path coefficient values obtainedfor0216with ap-valueof0.002.Becausep-value<5%, then there is sufficient evidence to accept the hypothesis that "IT Relatedness(X1) affect the Outsourcing Strategy(Y1)". This means that the higher the value of IT Relatedness(X1), the higher the value of Knowledge Management (Y2).
3. Testing IT Relatedness effect between variables (X1) on Organizational Performance (Y3) path coefficient values obtained for 0133with ap-value of 0.093. Because p-value<10%, then there is sufficient evidence to accept the hypothesis that "IT

Relatedness(X1) influence on Organizational Performance (Y3)". Because the path coefficient is positive, it can be a positive relationship between the two. The higher IT Relatedness(X1) will lead to the higher value of Organizational Performance (Y3).

4. Testing Outsourcing Strategy influence between variables (Y1) on Organizational Performance (Y3) path coefficient values obtainedfor0142with ap-valueof0.104. Because p-value> 5% then there is not enough evidence to accept the hypothesis that "Outsourcing Strategy (Y1) influence on Organizational Performance (Y3)". This means that regardless of the value of Outsourcing Strategy (Y1), will not affect the height of the low value of Organizational Performance (Y3).
5. Testing the influence of the variable Knowledge Management (Y2) on Organizational Performance (Y3) path coefficient values obtainedfor0561with a p-value of 0.000. Because p-value<5%, then there is sufficient evidence to accept the hypothesis that" Knowledge Management (Y2) influence on Organizational Performance (Y3)". This means that the higher the value of Knowledge Management (Y2), the higher the value of Organizational Performance (Y3).

The following table presents the results of hypothesis testing indirect effect.

**Table 4:** Testing Results the Indirect Path Model

| *Variable Relationships* | | | *Coefficient Indirect Effect* | *Conclusion* |
|---|---|---|---|---|
| *Independent* | *Dependent* | *Mediator* | | |
| X1 | Y3 | Y1 | 0.273x0.142 = 0.039 | Non Significant |
| X1 | Y3 | Y2 | 0.216x0.561 = 0.121 | Significant |

Based on the table above, there are six indirect effects with the following results:

There is no indirect effect between IT Relatedness with Organizational Performance through Out sourcing Strategy within direct influence coefficients for 0039(0.273x0.142) due to both the direct influence that shape the indirect effect is not significant one. This means that regardless of the value of IT Relatedness, it will not affect the value of Organizational Performance, although the value changes Outsourcing Strategy.

There are indirect effects between IT Relatedness with Organizational Performance through Knowledge Management within direct influence coefficients for 0121(0.216x0.561) due to both the direct influence that shape both the indirect effect is significant. This means that the higher the value of IT Relatedness, the higher the value of Organizational Performance, if the value of Knowledge Management changes.

From the results of path analysis showed that IT Relatedness effect on Outsourcing Strategy, Knowledge Management and Organizational Performance. This indicates that the higher the value of IT Relatedness effect on Outsourcing Strategy, Knowledge Management and Organizational Performance, it will lead to higher Outsourcing Strategy and Knowledge Management, and Organizational Performance.

Strategy Outsourcing influences Knowledge Management and Organizational Performance. This suggests that the high value of Outsourcing Strategy will result in the value of Knowledge Management and Organizational Performance.

On the other side, there is no significant Outsourcing Strategy to Organizational Performance. This illustrates that however high the value of Outsourcing Strategy, haven impact on the level of Organizational Performance.

## 5. Conclusions and Limitation

From the analysis of the path in the previous section, obtained some conclusions as follows (1) IT Strategy Relatedness effect on Outsourcing, Knowledge Management and Organizational Performance, indicates that the higher the value of IT Relatedness effect on Outsourcing Strategy, Knowledge Management and Organizational Performance, it will lead to higher Outsourcing Strategy and Knowledge Management, and Organizational Performance (2) Outsourcing Strategy no significant effect on Organizational Performance. This illustrates that however high the value of Outsourcing Strategy, have an impact on the level of Organizational Performance.

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