

THE EFFECT OF INFORMATION TECHNOLOGY AND THE QUALITY OF HUMAN RESOURCES ON ACCOUNTING INFORMATION SYSTEMS

(Study on Regional Device Work Unit of DKI Jakarta Provincial Transportation Office)

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Abstract

This study is to analyze the amount of the effect of the implementation of information technology and the quality of human resources simultaneously affecting the effectiveness of the accounting information system in the Transportation Service of DKI Jakarta Province. The research approach used is quantitative research methods. The type of research approach according to the level of explanation is included in associative/ relationship research. The variables used in this study are the implementation of information technology as the X1 variable, the quality of human resources as the X2 variable and the effectiveness of the accounting information system as the Y variable. The population taken in this study is the number of employees of the DKI Jakarta Provincial Transportation Service consisting of 273 people with a total sample of 73 people. Based on the results of the research and discussion by the author, it can be concluded that: 1). There was a partial influence between the implementation of information technology on the effectiveness of the accounting information system; 2). There was a partial influence between the quality of human resources on the effectiveness of the accounting information system; 3). Based on the results of the multiple X1 and X2 correlation analysis to Y, the value of R Square obtained was 0.863. The simultaneous implementation of information technology and the quality of human resources to the effectiveness of the accounting information system contributed 86.3%. From the results of multiple regression analysis, the equation was: $\hat{Y} = a + b_1X_1 + b_2X_2 = -4,270 + 0,173X_1 + 0,935X_2$ To test the significance of the implementation of information technology and the quality of human resources simultaneously on the effectiveness of the accounting information system, the Ftest test was conducted. From the calculation of the value of t table, it was known that the value of $F_{table} = 3,134$ whose value was smaller than the value of F_{count} , which was $= 211,037$. The conclusion was $F_{count} > F_{table}$ or $211,037 > 3,134$, then value was significant

Keyword : Implementation of Information Technology, Quality of Human Resources, Effectiveness of Accounting Information System

INTRODUCTION

In essence, human resources are employed in an organization as a driver to achieve the goals of the organization. Human resources that have adequate potential can increase the productivity and operational activities of the company. One of the factors that affect the performance of accounting information systems is human behavior. Human behavior is human resources as implementers and supporting accounting information systems that run on such institutions or companies.

Variables that are the main problems in this study, are the quality of human resources and the utilization of information technology. As we know that every government organization is required to be able to optimize human resources and how those human resources work in achieving predetermined goals. In achieving the objectives, of course, the ability of employees to be the main factor of success and the use of adequate facilities and technology will support the achievement of more effective and efficient goals. Meanwhile, human resources in government agencies are often considered incompetent and less maximal. Therefore, through this study, researchers intend to conduct research on government agencies to see the effectiveness of accounting information systems. Departing from the preliminary survey that the author did there are several symptoms / phenomena that occur related to the implementation of accounting information systems that occur in the Regional Device Work Unit of the DKI Jakarta Provincial Transportation Office, among others:

1. Employees sometimes do not understand the procedures of the information system, which results in longer work.
2. The online system in each section is not well integrated because sometimes there are disruptions to the system network.
3. Services obtained by users (employees) from information system developers in the form of information system updates and responses from developers if information is experiencing perceived problems are still not responsive.
4. There was a delay in the input of data to the network system.
5. As a result of the system error resulted in employees not being able to work effectively and efficiently.

LITERATURE REVIEW

The understanding of information technology is stated by Maharsi (2000) that information technology is a combination of computer and telecommunication technology with other technologies, such as: hardware, software, databases, network technology, and other telecommunication equipment. Furthermore, information technology is used in the organization's information systems to provide information for users in the framework of decision making.

According to Sedarmayanti, the understanding of Human Resource Quality is: The quality of human resources concerns the quality of the workforce that concerns ability, both in the form of physical ability, intellectual ability (knowledge), and psychological (mental) ability.

Hall (2011:7) explains that accounting information systems are subsystems that process financial and non-financial transactions that directly affect the processing of financial transactions.

The implementation of an effective accounting information system in the company can provide value added for users in the form of providing a variety of financial information for the

company's planning, control and decision-making activities, which ultimately impacts on improving the company's overall performance (financial and non-financial performance). Therefore, factors that affect the effectiveness of accounting information systems need to be improved in order to produce better accounting information, one of which is through the application of optimal information technology.

The effectiveness of accounting information systems is a success achieved by accounting information systems in producing information in a timely, accurate and trustworthy manner. Ratnaningsih and Suaryana (2014). The effectiveness of accounting information system is expected to be realized based on SIA elements and supported by the utilization of information technology and human resources that are good and maximal. The effectiveness of accounting information systems in government agencies is very important, because that's why they can measure the success of the information system applied

The implementation of information technology can be said to be successful if it can be utilized by users to the maximum and useful for the efficiency and effectiveness of the organization. After success, development can be done in the form of adjustments in accordance with the latest needs of users in the organization (Maharsi, 2000).

The purpose of the development of accounting information system is to add value for the company, namely to produce accurate and timely information, the implementation of accounting information systems that improve quality and reduce costs, improve the right decision making and improve knowledge sharing (knowledge sharing)Handojo, Dkk (2004).

METHOD

The research approach used is quantitative research method. Associative research is a study that aims to know the relationship between two or more variables, with this research will be able to build a theory that can serve to explain, predict and control a symptom. (Sugiyono, 2017:11) . The variables used in this study are the application of information technology as variable X1, the quality of human resources as variable X2 and the effectiveness of accounting information systems as variables Y. The population taken in this study is the number of employees of the DKI Jakarta Provincial Transportation Office which is 273 people. Due to the large population, the sampling method used refers to Slovin's approach with the results of the calculation obtained by 73 respondents.

Data analysis techniques used are quantitative analysis techniques. The steps that the author performs in statistical data analysis techniques are as follows: 1. Test the quality of the data; 2. Classic Assumption Test; 3. Hypothesis Test.:

RESULTS AND DISCUSSION

There is a Significant Influence Between the Application of Information Technology on the Effectiveness of Accounting Information Systems in the DKI Jakarta Provincial Transportation Office

Table 1 SPSS Output: Correlation Coefficient Analysis Results
Product Moment X_1 and X_2 Against Y

		Correlations		
		X_1	X_2	and
X_1	Pearson Correlation	1	.665*	.734**
	Sig. (2-tailed)		.000	.000
	n	70	70	70
X_2	Pearson Correlation	.665*	1	.913**
	Sig. (2-tailed)	.000		.000
	n	70	70	70
and	Pearson Correlation	.734*	.913*	1
	Sig. (2-tailed)	.000	.000	
	n	70	70	70

**. Correlation is significant at the 0.01 level (2-tailed).

Based on the table above that the magnitude of the influence between variable X_1 (Application of information technology) to variable Y (effectiveness of accounting information system) calculated by correlation coefficient is 0.734. This indicates a strong influence between the two variables. While the signification rate of the one-tailed correlation coefficient of the output (measured from probability) results in a number of 0.000 or 0. Because the probability is far below 0.01 or 0.05, the influence between the two variables is significant.

Table 2 SPSS Output: Results of Double Regression Analysis X_1 and X_2 Against Y
Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-4.270	1.302		-3.280	.002
	X_1	.173	.046	.226	3.739	.000
	X_2	.935	.074	.763	12.602	.000

a. Dependent Variable: Y

Table 2 illustrates that the regression equation is as follows: $\hat{Y} = a + b_1X_1 = -4.270 + 0.173X_1$. The regression coefficient of 0.173 states that each addition (due to the + sign) of one score or value of information technology application will provide a score increase of 0.173.

Based on Table 2, the variable Application of Information Technology (X_1) has a t-count value of 3,739. The table t value that is the standard for making decisions on hypotheses is searched by specifying df. The value $df = n - k$, n is the number of respondents and k is the sum of all variables in this study ($df = n - k = 70 - 3 = 67$), obtained a table t value at a significance level of 0.05 which is 1.99601.

The analysis results showed the calculated t value > table t (3,739 > 1.99601). This means that H_0 is rejected and H_1 is accepted, or there is an influence (partially) between the Application of Information Technology to the Effectiveness of Accounting Information Systems.

To find out how much the percentage of the application of information technology (X_1) has an influence on the effectiveness of the accounting information stem (Y) then conducted an analysis of the coefficient determination, which obtained the result that the variable application of information technology affects the variable effectiveness of accounting information systems by 53.88%, and the rest is influenced by other factors that were not studied in this study.

There is a Significant Influence Between The Quality of Human Resources on the Effectiveness of Accounting Information Systems in the DKI Jakarta Provincial Transportation Office

Based on Table 1 that the magnitude of the influence between variable X_2 (quality of human resources) to variable Y (effectiveness of accounting information system) calculated by correlation coefficient is 0.913. This indicates a very strong influence between the two variables. While the signification rate of the one-tailed correlation coefficient of the output (measured from probability) results in a number of 0.000 or 0. Because the probability is far below 0.01 or 0.05, the influence between the two variables is significant.

Table 2 illustrates that the regression equation is as follows: $\hat{Y} = a + b_1X_1 = -4.270 + 0.935X_2$. The regression coefficient of 0.935 states that any addition (due to the + sign) of one score or quality value of human resources will give an increase in score of 0.935.

Based on Table 2 above, the HR Quality variable has a t value of 12,602. The value $df = n - k$, n is the number of respondents and k is the sum of all variables in this study ($df = n - k = 70 - 3 = 67$), obtained a table t value at a significance level of 0.05 which is 1.99601. From the results of the data analysis showed $t_{\text{calculate}} > t_{\text{table}}$, namely $12,602 > 1.99601$ at the level of significance of 0.05. This means H_0 rejected and H_2 accepted. That is, that there is an influence (partially) between the variables of Human Resource Quality on the Effectiveness of Accounting Information Systems.

To find out how much the percentage of human resource quality (X_2) has an influence on the effectiveness of accounting information systems (Y) then conducted an analysis of the coefficient of determination where known variables of human resource quality affect the effectiveness variables of accounting information systems by 83.36%, and the rest is influenced by other factors that are not studied in the study.

There is a Significant Influence Between the Application of Information Technology and The Simultaneous Quality of Human Resources on the Effectiveness of Accounting Information Systems in the DKI Jakarta Provincial Transportation Office

Table 3 SPSS Output: Results of Double Correlation Analysis X_1 and X_2 Against Y

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.929 ^a	.863	.859	1.081

a. Predictors: (Constant), X_2 , X_1

Based on the results of the analysis of double correlation X_1 and X_2 to Y contained in table 3 there is R Square is 0.863 (is the squaring of the correlation coefficient 0.929 or 0.929^2). R Square can be called a coefficient of determination which in this case means 86.3% variable contribution of information technology application (X_1) and quality of human resources (X_2) to the effectiveness of accounting information systems (Y), while the remaining 13.7% can be explained by other reasons. R Square ranges from 0 to 1, with the record the smaller the R Square number, the weaker the second or more variable relationship. Thus, the simultaneous application of information technology and the quality of human resources to the effectiveness of accounting information systems contributed 86.3%.

The double regression equation is: $\hat{Y} = a + b_1X_1 + b_2X_2 = -4.270 + 0.173X_1 + 0.935X_2$. The value $a = -4,270$ is a constant. This means that if the application of Information Technology (X_1), Human Resources Quality (X_2) same with zero, then the Effectiveness of Accounting Information System (Y) is $-4,270$. Known magnitude of regression coefficient of Application of Information Technology (X_1) obtained 0.173 positive value. The results show that every increase in the Application of Information Technology (X_1) by one unit will be followed by an increase in the Effectiveness of Accounting Information Systems (Y) of 0.173 units, or vice versa if there is a decrease in the Application of Information Technology (X_1) of one unit, it will be followed by a decrease in the Effectiveness of Accounting Information Systems (Y) of 0.173 units. Known magnitude of human resource quality regression coefficient (X_2) obtained by 0.935 positive value. The results show that every improvement in human resources quality (X_2) by one unit, it will be followed by the effectiveness of accounting information system (Y) of 0.953 units, and vice versa if there is a decrease in human resources quality by one unit, it will be followed by the effectiveness of accounting information system (Y) of 0.953 units.

Table 4 SPSS Output: Anava Summary Results For Signification Test
ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	itsel f.
1	Regression	493.442	2	246.721	211.037	.000 ^b
	Residual	78.329	67	1.169		
	Total	571.771	69			

a. Dependent Variable: Y

b. Predictors: (Constant), X_2 , X_1

Based on the calculation result F count obtained the value of F of 211,037 with a significance of 0.000 less than 0.05. The table F value is obtained by looking for N_1 and N_2 , where n is the number of respondents (98), k is the sum of all variables (3). From that value, the values $N_1 = 3 - 1 = 2$ ($df = N_1 = k - 1$) and $N_2 = 98 - 3 = 95$ ($df = N_2 = n - k$) are 3.13, then F calculates the table $> F$ ($211.037 > 3.13$). This indicates H_0 was rejected and H_3 accepted or variable Application of Information Technology and HR Quality variables together (simultaneously) affect the Effectiveness of Accounting Information Systems

CONCLUSION

Based on the results of the research and discussion that the author did, it can be concluded as follows:

1. Based on the results of the analysis on the influence of the application of information technology on the effectiveness of accounting information systems in the DKI Jakarta Provincial Transportation Office, it can be known that there can be a partial influence of the application of information technology on the effectiveness of accounting information systems by 53.88%.
2. Based on the results of the analysis on the influence of human resource quality on the effectiveness of accounting information systems in the DKI Jakarta Provincial Transportation Office, it can be known that there is a partial influence of human resources quality on the effectiveness of accounting information systems by 83.36%.
3. Based on the results of the study can be concluded that there is an influence together / simultaneous application of information technology and quality of human resources to the effectiveness of accounting information systems in the DKI Jakarta Provincial Transportation Office, as evidenced by the F_{test} . From the calculation of the value of F table in know that the value of table $F = 3,134$ whose value is smaller than the calculated value F is $= 211,037$. Conclusion $F_{calculated} > F_{table}$ or $211,037 > 3,134$, then significant.

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