Effectiveness of Accounting Information Systems and the Affecting Factors

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ABSTRACT

The development of technology in the era of globalization accompanied by the development of technology-based information systems has undergone rapid changes. Accounting information systems are considered an important factor in the sustainability and success of an organization. Accounting information systems can be said to be effective if the system is able to produce information in a timely, accurate and reliable manner. This study aims to obtain empirical evidence of the effects of incentives, level of education, experience and skills on the effectiveness of accounting information systems. The method used in sampling is to use a purposive sampling method with criteria for sampling employees who have implemented a computer-based accounting information system and utilize information technology in carrying out their daily tasks. The data analysis technique used is multiple linear regression analysis techniques. Based on the results of data analysis, it can be concluded that incentives, levels of education, experience, and skills have a positive effect on efektiveness accounting information systems at PT. Angkasa Pura Logistics.

Keywords: Accounting Information Systems, Incentives, Level of Education, Experience, Skills.

I. INTRODUCTION

The development of information technology has progressed very quickly and caused the business environment to become increasingly unpredictable. The rapid advancement of information technology information, encourages companies to turn to the use of computer-based information systems because it will facilitate and accelerate management to obtain information that will be processed in such a way as to produce output information that supports reliable decisions. Companies that use accounting information systems always develop technological resources to support the technology of information technology users so that companies can survive in a competitive world. Therefore, information technology players must be involved in developing information technology in their companies.

Kelton et al (2010) stated that the rapid development of information technology will have a positive and significant impact on the company, where the survival of the company is determined by its competitive ability, and competitiveness requires a strategy by utilizing various strengths and opportunities and closing down weaknesses strategic faced. All of these things can be known if the company has sufficient information, so that information technology is something important for the company.

Accounting information system is a system that is in the field of accounting technology, which is used to help manage and control data and information related to the economic and financial sector of the company (Urquia et al, 2011). A system can be said to be effective if it is able to produce quality information, so that information can also improve the company's performance. To improve the effectiveness of corporate management, it is important to have quality accounting information because the data and information will be the basis of decision making (Nwokeji, 2012). The Technology Acceptance Model (TAM) theory has been used by many researchers to explore the user's attitude towards technology and user behavior to use these technologies. This study will explain the relationship between incentives, level of education, work experience and skills using TAM predictors, namely perceived case of use.

Incentives according to Ranupandojo and Husnan (2008: 161) are a form of financial encouragement to employees as a remuneration of the company to employees for the employee's achievements. Incentives can be said as a motivational tool that encourages employees to improve performance in order to obtain more incentives. This means that incentives have a positive influence on the performance of a system. In line with the research of Erna (2015) and Budiarta (2015).

The level of education has an important role in increasing the effectiveness of the use of the system, because someone with a higher education will have a faster absorption capacity in learning a system so that it will improve performance in implementing the system. The higher the level of education owned by employees, the more effective the use of a system (Erna, 2015). This is supported by the results of the research of Karlina (2010) and Utami (2016) which states that the level of education has a positive effect on the effectiveness of AIS. While different from the results of research Dewi (2014) and Mirawati (2014) who stated the level of education negatively affected the effectiveness of the use of AIS.

Someone who performs the same task repeatedly will keep more things in his memory and can develop a good understanding of the various events of Ariani (2010). Work experience is the period of time or length of time someone works in an agency, office, Erna (2015). The more experience a person has in his field of science, the easier it will be for him to learn new things so as to improve his performance, this is in line with the research of Ariani (2010) and Adrian (2015) stating the influence of experience has a positive effect on AIS effectiveness

Skill is an ability, talent or skill that exists within every human being Adrian (2015). An employee who has good skills tends to be easier to learn about technological developments and how to use it so that the performance of a system tends to increase, this is in line with Erna (2015) and Adrian (2015) stating the effect of skills has a positive effect on the effectiveness of AIS. While the results of research are different by

Based on the differences in the results of the above research and the importance of the effectiveness of a system to improve company performance, researchers want to reexamine the same variables with the title of the factors that influence the effectiveness of accounting information systems in PT Angkasa Pura Logistics. The independent variables used in this study are incentives, level of education, experience and skills.

I. STUDY OF LITERATURE AND DEVELOPMENT OF HYPOTHESIS
Theory of Technology Acceptance Model (TAM)

Several research models have been conducted to analyze and understand the factors that influence the acceptance of the use of computer technology, one of which is the Technology Acceptance Model (TAM). This Technology Acceptance Model (TAM) states that system users will use the system easily and usefully. The concept of TAM developed by Davis (1989) offers a theory as a basis for learning and understanding user behavior in receiving and using information systems. This model aims to explain the key factors of the behavior of information technology users towards the acceptance of adoption of information technology. Expansion of the TAM concept is expected to help predict one's attitudes and acceptance of technology and can provide basic information needed regarding the factors that drive the individual's attitude. The Technology Acceptance Model (TAM) theory has been used by many researchers to explore the user's attitude towards technology and user behavior to use these technologies. This study will explain the relationship between incentives, level of education, work experience and skills using TAM predictors, namely perceived case of use.

Accounting Information System (AIS)

According to Jogiyanto (2015: 227) Accounting Information Systems (AIS) is a system that is able to process business transaction data into financial information for its users which is used as the basis for making decisions. A system is said to have good effectiveness if the system is able to meet the needs of a company or institution (Romney, 2016: 10). The effectiveness of accounting information systems is a description of the achievement of a target from a resource that is used to collect, process and store electronic data which is then converted into information that is useful for presenting quality and timely reports (Utami, et al., 2015). The effectiveness of using an information system in a company can be seen in

terms of its ease of use in identifying data, accessing data, and interpreting data (Jumaili, 2005).

Development of Hypotheses
The Effect of Incentives on the Effectiveness of the Accounting Information System

The results of Erna (2015) and Budiarta (2015) stated that incentives have a positive effect on the effectiveness of AIS, which means that the more incentives given will increase one's enthuAISsm in work so as to increase the effectiveness of the use of accounting information systems. So the first hypothesis in this study is:

H1: Incentives have a positive effect on the effectiveness of accounting information systems

Effect of Level of Education on the Effectiveness of Accounting Information Systems.

The results of the Karlina (2010) and Utami (2016) study which state the level of education has a positive effect on the effectiveness of AIS, which means that the higher the level of education of a person, the better the ability to use the system so as to increase the effectiveness of using accounting information systems. So the second hypothesis in this study is:

H2: Education levels positively falling against the effectiveness of information systems accounting.

Effect of Experience on the Effectiveness of Accounting Information Systems.

The results of Ariani (2010) and Adrian (2015) state that the influence of experience has a positive effect on the effectiveness of AIS, which means that the more experience a person has, the easier it will be to deal with problems in the use of the system. So that the third hypothesis in this study is:

H3: Experience has a positive effect on the effectiveness of accounting information systems.

Effect of Skill on the Effectiveness of Accounting Information Systems

The results of Erna (2015) and Adrian (2015) states that the effect of skills has a positive effect on the effectiveness of AIS, which means that the more skills a person has, the faster the use of a system so as to increase the effectiveness of the use of accounting information systems. So that the fourth hypothesis in this study is:

H4: Skill has a positive effect on the effectiveness of accounting information systems

III RESEARCH METHODOLOGY

This research was conducted at PT Angkasa Pura Logistik, located on Jl. Ngurah Rai Airport No. 12, Tuban, Kuta, Badung Regency, Bali Province. The object of this research is the influence of incentives, level of education, experience and skills on the effectiveness of accounting information systems at PT. Angkasa Pura Logistik. The method of determining the sample used in this study is to use a non probality sampling technique. Non probality sampling is a sampling technique that does not have the opportunity or equal opportunity for elements or members of the population to be selected as samples. The sample of this study was 66 people with a method of collecting data using a questionnaire with a Likert scale. The data analysis technique used in this study is the analysis of multiple linear regression analysis.

IV RESULTS AND DISCUSSION

Based on Table 1 in Attachment 1, it can be concluded that the results of the research instrument validity indicate that the overall statement in the questionnaire is valid because the Pearson correlation value is more than 0.3 and the significance value is less than 0.05. In table 2 shows that the Cronbach Alpha value for each variable is more than 0.70. So it

can be said that all variables have met reliability requirements or can be said to be reliable, so that they can be used in this study.

 Table 3 in Attachment 2 shows that the significance value for the normality test is 0.2 which is more than 0.05 so that it can be concluded that the data is normally distributed. In Table 4 shows the tolerance value for all independent variables more than 0.1 and the value of VIF (Variance Inflation Factor) is less than 10. This shows that the regression model does not detect Multicollinearity problems and there is no multicollinearity. While in Table 5 shows each variable has a significance value of more than 0.05, which means there is no heteroscedasticity so that this study can be continued for Regression Analysis Test.

 In Attachment 3 in Table 6 for the coefficient of determination, Adjusted R-Square is a variable contribution of 70.5%, while the remaining 29.5% is influenced by the model. The F test presented in Attachment 3 Table 7 obtains a significance value of less than 0.05, which means that the incentive variable, level of education, experience and skills simultaneously affect the effectiveness of AIS. While the partial test of each independent variable on the dependent variable is presented in Table 8 below:

Table 8
t Test
Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	13.058	2.347		5.565	.000
Incentive	.484	.106	.396	4.579	.000
Educational level	.123	.052	.189	2.367	.021
Experience	.343	.107	.264	3.204	.002
skill	.315	.129	.237	2.443	.017

a. Dependent Variable: Effectiveness _AIS

1. Incentive variable (X1) shows a beta value of 0.484 with a significance value of 0,000. The significance value is smaller than 0.05, then H1 is accepted, which means that the more incentives provided it will increase the effectiveness of the use of accounting information systems. These results are in accordance with Erna (2015) and Budiarta (2015) 'research stating that incentives have a positive effect on the effectiveness of AIS, which means that the more incentives given will increase one's enthuAISsm in work so as to increase the effectiveness of the use of accounting information systems.
2. Educational level variable (X2) shows beta value of 0.123 with a significance value of 0.021. The significance value is smaller than 0.05, then H2 is accepted which means that the higher the level of education will increase the effectiveness of the use of accounting information systems. These results are in accordance with the research of Karlina (2010) and Utami (2016) which states the level of education has a positive effect on the effectiveness of AIS, which means that the higher the level of education of a person, the better the ability to use the system so as to increase the effectiveness of the use of accounting information systems.
3 Experience variable (X3) shows beta value of 0.343 with a significance value of 0.002. The significance value is smaller than 0.05, then H3 is accepted, which means that the more experience that is possessed it will increase the effectiveness of the use of accounting information systems. These results are in accordance with Ariani (2010) and Adrian (2015) 's research stating that the influence of experience has a positive effect on the effectiveness of AIS, which means that the more experience a person has, the easier it will be to use the system, thereby increasing the effectiveness of using accounting information systems.
4. Variable skill (X4) shows a beta value of 0.315 with a significance value of 0.017. The significance value is less than 0.05, then H4 is accepted which means that the more skills possessed it will increase the effectiveness of the use of accounting information systems. These results are in accordance with Erna (2015) and Adrian (2015) research stating that the effect of skills has a positive effect on the effectiveness of AIS, which means that the more skills a person has, the faster the use of accounting information systems will be.

V. CONCLUSION

Based on the results of research and hypothesis testing that have been proposed, it can be concluded that:

1) Incentives have a positive effect on the effectiveness of accounting information systems at PT. Angkasa Pura Logistik.
2) The level of education has a positive effect on the effectiveness of accounting information systems at PT. Angkasa Pura Logistik.
3) Experience has a positive effect on the effectiveness of accounting information systems at PT. Angkasa Pura Logistik.
4) Skill has a positive effect on the effectiveness of accounting information systems at PT. Angkasa Pura Logistik.

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Attachment 1

Table 1
Validity test

No.	Variable	Question	*Pearson Correlation*	Result
1	Incentive (X_1)	X1.1	0,625	Valid
		X1.2	0,702	Valid
		X1.3	0,628	Valid
		X1.4	0,662	Valid
		X1.5	0,763	Valid
2	Education Level (X_2)	X2.1	0,606	Valid
		X2.2	0,600	Valid
		X2.3	0,414	Valid
		X2.4	0,606	Valid
		X2.5	0,760	Valid
		X2.6	0,655	Valid
		X2.7	0,356	Valid
		X2.8	0,326	Valid
		X2.9	0,606	Valid
3	Experience (X_3)	X3.1	0,816	Valid
		X3.2	0,826	Valid
		X3.3	0,586	Valid
		X3.4	0,558	Valid
		X3.5	0,558	Valid
4	Skill (X_4)	X4.1	0,708	Valid
		X4.2	0,609	Valid
		X4.3	0,785	Valid
		X4.4	0,814	Valid
		X4.5	0,409	Valid
5	Effectiveness of Accounting Information System (Y)	Y.1	0,556	Valid
		Y.2	0,845	Valid
		Y.3	0,545	Valid
		Y.4	0,427	Valid
		Y.5	0,350	Valid
		Y.6	0,602	Valid
		Y.7	0,380	Valid
		Y.8	0,481	Valid
		Y.9	0,359	Valid
		Y.10	0,514	Valid

Table 2
Reliability test

No.	Variable	Nilai Cronbach Alpha	Result
1	Incentive (X_1)	0,701	Reliable
2	Education Level (X_2)	0,723	Reliable
3	Experience (X_3)	0,706	Reliable
4	Skill (X_4)	0,705	Reliable
5	Effectiveness of Accounting Information System (Y)	0,702	Reliable

Attachment 2

Table 3
Normality test

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		66
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	.98378247
Most Extreme Differences	Absolute	.081
	Positive	.066
	Negative	-.081
Test Statistic		.081
Asymp. Sig. (2-tailed)		.200[c,d]

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.
d. This is a lower bound of the true significance.

Table 4
Multicollinearity Test

Coefficients[a]

Model	Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.	Collinearity Statistics Tolerance	Collinearity Statistics VIF
1 (Constant)	13.058	2.347		5.565	.000		
Incentive	.484	.106	.396	4.579	.000	.606	1.650
Education Level	.123	.052	.189	2.367	.021	.712	1.404
Experience	.343	.107	.264	3.204	.002	.669	1.494
Skill	.315	.129	.237	2.443	.017	.483	2.071

a. Dependent Variable: Effectiveness Accounting Information System

Table 5
Heteroskedastisity Test

Coefficients[a]

Model	Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1 (Constant)	-1.213	1.398		-.867	.389

Incentive	-.079	.063	-.195	-1.250	.216
Education Level	.031	.031	.146	1.013	.315
Experience	.106	.064	.247	1.659	.102
Skill	.008	.077	.019	.110	.913

a. Dependent Variable: ABS_RES

Attachment 3

Table 6
Determination Coefficient

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.850[a]	.723	.705	1.01553

a. Predictors: (Constant), Skill, Education Level, Experience, Incentive

Table 7
F Test

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	164.182	4	41.046	39.800	.000[b]
	Residual	62.909	61	1.031		
	Total	227.091	65			

a. Dependent Variable: Effectiveness Accounting Information System
b. Predictors: (Constant), Skill, Education Level, Experience, Incentive

Table 8
t Test

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	13.058	2.347		5.565	.000
	Incentive	.484	.106	.396	4.579	.000
	Education Level	.123	.052	.189	2.367	.021
	Experience	.343	.107	.264	3.204	.002
	Skill	.315	.129	.237	2.443	.017

a. Dependent Variable: Effectiveness Accounting Information System