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## THE EFFECT OF AGE DIFFERENCES, WORK EXPERIENCE AND EDUCATION LEVELS ON THE EFFECTIVENESS OF USING ACCOUNTING INFORMATION SYSTEMS

Komang Nik Radhi Hardani, I WayanRamantha

*Faculty of Economics and Business, Udayana University, Bali, Indonesia*

**ABSTRACT:** This study aims to determine the effect of differences in age, work experience and level of education on the effectiveness of using accounting information systems. This research was conducted at BPR in Badung Regency. The sampling technique used in this study was purposive sampling technique. The number of respondents used in this study was 96 employees. Data collection is done by distributing questionnaires and interviews. The data analysis technique used is multiple linear regression analysis with the SPSS program. The results of this study indicate that age has a negative effect on the effectiveness of the use of accounting information systems, while work experience and education levels have a positive effect on the effectiveness of the use of accounting information systems.

**Keywords:** *effectiveness of using Accounting Information Systems, age, work experience, education level*

### I. INTRODUCTION

Accounting information systems are collections of resources, such as people and equipment, that are designed to convert financial data and other data into information that will be communicated to decision makers (Bodnar and William S, 2006: 3). Dillaet *et al.*, (2010) stated that AIS is a collection of people and sources of capital in an organization that is responsible for providing financial information. Users of information systems technology regarding hardware and software are determined by aspects of user behavior that become important and must be considered in the application of information technology. The company's need for information increases in line with the company's development. The bigger and more complex a company, the greater the need for information. Information is the deciding element in decision making because it is used to plan, organize, direct and control company activities. Some business organizations gain competitive advantage by completing new information systems (Salehi *et al.*, 2010).

One financial institution that applies an accounting information system is the Rural Bank (BPR). According to Dwitrayaniet *al.* (2017) explaining the accounting standard used is the entity's financial accounting standard without public accountability (SAK-ETAP), so that it requires a different information system than banks in general. BPR financial institutions accept deposits only in the form of time deposits, savings, or other equivalent forms and channeling funds as BPR businesses. BPR is supporting the development of the Indonesian economy, especially for micro, small and medium business activities and the informal sector. According to Kasmir (2012: 40) BPR activities are raising funds, providing credit, providing financing and placement of funds, placing funds in the form of Bank Indonesia Certificates (SBI), time deposits, certificates of deposit, and savings at other banks.

The phenomenon that can be observed in the development of Rural Credit Banks today is that there is a lot of liquidation at Rural Credit Banks, especially in Badung Regency, there are 2 BPRs that have been liquidated. This is due to unhealthy banking practices by the management and shareholders. The use of information technology is still very much needed to avoid the occurrence of banking practices that cause poor financial performance and can present good financial reports. If the company still uses a manual information system, the company is not getting the right information. Companies will experience instability in controlling resources, so that in making decisions a company is very disturbed. In the end the company will experience defeat in competing with the environment of its competitors, then the computer-based information system plays an important role to support the company's progress.

The use of information technology is expected to provide great benefits in the highly competitive business world (Wirawan and Suardikha, 2016). Iirjanet *al.*, (2015) stated that accounting information systems play a very important role in the management of company operations and activities, where computer-based accounting information systems are very necessary. The performance of the system, refers to how well the capabilities of the hardware, software, policies, procedures of the information system can provide user needs (DeLone and McLean, 1992 in Kasandra, 2016).

In using the accounting information system, many people have not been able to implement it properly, for fear of taking a pretty heavy risk. Research conducted by Anjani and Wirawati (2018) states that age has a negative effect on the effectiveness of users of accounting information systems. Age can be said to affect because getting older is a person who will have many considerations in avoiding a risk. Theory of Reasoned Action (TRA) states the relationship between interest and behavior in using information technology. Age differences related to the use of technology, the decision to use technology younger workers are more influenced by their interest in using technology. In addition to young minds being more advanced, behavior in using technology is also better.

In addition to the age factor there is also research from Vipraprastha and Sari (2016), in his findings stating that work experience, training, education level, and incentives have a positive effect on the effectiveness of using AIS. The accounting information system cannot work well if there are no employees who can use it. Frequent irregularities in the use of accounting information systems procedures, can cause discrepancies in financial statements. Lack of understanding and experience of employees to use accounting information systems that cause financial statements are wrong in its presentation. Work experience can affect a person's perception of working in accordance with the Theory of Technology Acceptance Model (TAM). TAM is a model used to see the acceptance of technological systems used by users (Jogiyanto, 2007: 112).

Other factors that assume TAM theory in influencing employee performance on the effectiveness of using accounting information systems are the level of education. Widyantari and Suardikha (2016) in their findings stated that work experience and education level had a positive and significant influence on the performance of individual users of accounting information systems. Every employee has a different level of education. The level of education is assumed that higher education, occupies a higher position in the organization and has greater opportunity in decision making. Education can improve the quality of the workforce to be more productive at work.

## II. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Anjani and Wirawati (2018) used the TRA (Theory of Reasoned Action) model developed by Ajzen and Fishbein who tried to succeed the relationship between attitudes and behaviors towards behaviors that had the strongest correlation compared to other factors. Age differences related to technology use, the decision to use technology younger workers are more influenced by attitudes towards the use of technology. Conversely, older workers are more influenced by behavioral control. The results of previous studies conducted by Anjani and Wirawati (2018) stated that age differences had a significant negative effect on users of accounting information systems. Based on previous research and the description above, the first hypothesis is formulated as follows:

**H<sub>1</sub>: Age Difference has a negative effect on the Effectiveness of Using Accounting Information Systems at BPR in Badung Regency.**

Experience is a factor for evaluating something that has happened before to assess knowledge with others in the future so that they can carry out their work effectively. Work experience can affect a person's perception of working in accordance with the Theory of Technology Acceptance Model (TAM) which explains that, TAM is a model used to see the acceptance of technological systems used by users (Jogiyanto, 2007: 112). The more experience using accounting information systems, the more effective employee performance will be in using accounting information systems. The results of research from Vipraprastha& Sari (2016) show that work experience has a positive effect on the effectiveness of accounting information systems at the branch offices of PT. Bank Negara Indonesia (Persero) Tbk. Based on the description and results of previous studies above, the following hypotheses can be formulated:

**H<sub>2</sub>: Work experience has a positive effect on the Effectiveness of Using Accounting Information Systems at BPR in Badung Regency.**

The level of education can reflect a person in developing attitudes and forms of behavior in society. The level of education can increase the ability of individuals to do work more effectively. The higher the level of education, the higher the effectiveness of the use of technology. The TAM (Technology Acceptance Model) theory is a model developed by Davis (1989) that tries to succeed that someone will have an interest in using technology if the technology provides usability and ease of use. System users will use a system if the user feels that the system is useful, both easy and difficult to use the system. Vipraprastha and Sari (2016) state that education is an effort to increase knowledge. Anjani and Wirawati (2018) state that the level of education has a

positive effect on the effectiveness of the use of accounting information systems. Based on the description and results of previous studies above, the hypothesis can be formulated as follows:

**H<sub>3</sub>: Education Level has a positive effect on the Effectiveness of Using Accounting Information Systems at BPR in Badung Regency.**

### III. METHODS

This research was conducted at the Rural Credit Bank in Badung Regency which has used or implemented an Accounting Information System. The reason for choosing this research location is based on consideration because there are several BPRs that have been liquidated in Badung Regency and is the most BPR distribution in Bali Province. There are as many as 134 rural credit banks spread across the province of Bali. Badung Regency currently has 49 Rural Credit Banks (ojk.go.id), compared to other districts in Bali Province. An accounting information system is needed to improve the performance of Rural Bank so that it can compete with other financial institutions.

The population in this study are all BPR employees in Badung Regency who use accounting information systems in completing tasks. The sampling method used in this study is the purposive sampling method which is a sampling technique with certain criteria, to obtain samples that are relevant to the study. The sample criteria determined in this study are managers and employees who use accounting information systems at BPR Badung Regency.

Multiple Linear Regression Analysis is a test conducted to determine whether or not there is an influence between two variables, namely the independent variable with the dependent variable. This test is carried out using the help of the Statistical Product and Service Solution program. The analysis results are expressed in the form of linear regression equations as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon \dots\dots\dots (1)$$

Information:

Y = Variable Effectiveness of Using Accounting Information Systems

$\alpha$  = Constant or point of intersection with the y axis, if  $x = 0$

X<sub>1</sub> = Age Difference Variable

X<sub>2</sub> = Work Experience Variable

X<sub>3</sub> = Education Level Variable

$\beta_1$  = Regression coefficient of age difference

$\beta_2$  = Regression coefficient Work experience

$\beta_3$  = Education Level regression coefficient

$\varepsilon$  = Disruptive component

### IV. RESULT AND DISCUSSION

#### *Descriptive Statistics Test*

The results of the descriptive analysis can be seen in Table 1 as follows:

**Table 1. Results of Descriptive Statistics Analysis**

	N	Minimum	Maximum	Mean	Std. Deviation
Age	96	1	4	2.01	1.061
Work experience	96	9	20	14.82	2.118
Level of education	96	1	4	2.71	0.648
Effectiveness of Accounting Information Systems Use	96	26	40	32.34	3.033
Valid N (listwise)	96				

Based on Table 1 it can be concluded that the number of observations (N) of this study amounted to 96.

- 1) Age (X<sub>1</sub>) has a minimum value of 1 (indicating age 21-30), a maximum value of 4 (indicating age over 50), and an average value of 2.01. The average value of 2.01 indicates that the age of respondents tends to be high, ie between the ages of 31-40 years which is between the value of 2.00 and the value of 3.00 indicates the age of 41-50. The standard deviation of the age variable is 1.061. This means that there is a difference in the age value under study against the average value of 1.061.
- 2) Work Experience (X<sub>2</sub>) has a minimum value of 9, a maximum value of 20, a mean of 14.82. An average value of 14.82 indicates that respondents in the questionnaire statement area tend to feel agree with each statement, meaning that work experience tends to be high. The standard deviation of the work experience variable is 2.118 which is obtained from the average value divided by the number of statements in the questionnaire. This means that there is a difference in the value of the work experience studied against the average value of 2.118

- 3) Education Level (X3) has a minimum value of 1 indicating a high school / vocational / high school education level, a maximum value of 4 indicates an education level of S2 / S3. An average value of 2.71 indicates that the level of education tends to be high, namely education with a level between Diploma because the average value of 2.71 is between the value of 2 and value 3 indicates the level of education S1. Standard deviation of 0.648. This means that there is a difference in the Education Level under study against the average value of 0.648.
- 4) Effectiveness of Using the Accounting Information System (Y) has a minimum value of 26, a maximum value of 40. An average value of 32.34 indicates that respondents in the questionnaire statement area tend to feel agree on each statement, meaning that the effectiveness of using the AIS tends to high. Standard deviation of the variable effectiveness of the use of accounting information systems is 3.003 which is obtained from the average value divided by the number of statements in the questionnaire. This means that there is a difference in the value of the effectiveness of the AIS studied against the average value of 3.033.

The results of the multiple linear regression test as presented in Table 2 Based on the results of the regression coefficients in Table 2, the Multiple Linear Regression equation can be made as follows:

**Table 2. Multiple Linear Regression Test Results**

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
UAIS		-1.148	0.403	-0.293	-2.851	0.005
Pengalaman Kerja		0.486	0.144	0.344	3.375	0.001
Tingkat Pendidikan		0.807	0.352	0.222	2.295	0.024
Constant	= 26,529					
R	= 0,418					
Adjusted R square	= 0,148					
F	= 6,509					
Sig. F	= 0,000					

$$Y = 26,529 - 1,148X_1 + 0,486X_2 + 0,807X_3 + e$$

The explanation for each variable of the regression equation can be explained as follows:

- 1) Given a constant value ( $\alpha$ ) of 26,529 implies that if the value of the independent variable ie Age (X1), Work Experience (X2), and Education Level (X3) does not change or equal to zero, then the Effectiveness value of Using AIS (Y) will increased by 26,529 units.
- 2) Value  $\beta_1 = -1,148$  means that if the age variable increases, it will result in a decrease in the effectiveness of the use of AIS with the assumption that other independent variables are considered constant. Then the age variable has a greater influence in the use of the system.
- 3) Value  $\beta_2 = 0.486$  means that if the Work Experience variable increases, it will result in an increase in the Effectiveness of AIS Use assuming other independent variables are constant.
- 4) Value  $\beta_3 = 0.807$  means that if the Education Level variable increases, it will result in an increase in the Effectiveness of AIS Use assuming other independent variables are constant.

#### Model Feasibility Test (F Test)

Fit model testing (feasibility of the model) is done with the F test. This test is to determine whether all independent variables jointly influence the dependent variable. The results of the model feasibility test (F test) can be seen in Table 3.

**Table 3. F test**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	152.961	3	50.987	6.509	.000 <sup>b</sup>
	Residual	720.695	92	7.834		
	Total	873.656	95			

Primary Data, 2020

The F test is used to test whether the independent variables used in this study simultaneously have an influence on the dependent variable. Based on the results of data processing with the Statistical Package for Social Science (SPSS) program, the significance value of  $F = 0,000 < \alpha = 0.05$  with a calculated F value of 6,509. This means that the model used in this study is feasible or independent variables and moderating variables are able to explain the dependent variable.

#### Determination Coefficient Test ( $R^2$ )

The coefficient of determination ( $R^2$ ) is essentially to measure how far the model's ability to explain the variation of the dependent variable. In this study the coefficient of determination can be seen through the Adjusted  $R^2$  values seen in Table 4.

**Table 4. Coefficient Determination ( $R^2$ )**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.418 <sup>a</sup>	0.175	0.148	2.799

Primary Data, 2020

The magnitude of the coefficient of determination indicated by the value of Adjusted R square ( $R^2$ ) is 0.148. This result means that the influence of age, work experience, and education level on the effectiveness of the use of AIS is 14.8% and the remaining 85.2% is influenced by other factors outside the research model.

*Hypothesis Test (t test)*

T test is used to test the hypothesis which states that the independent variables used in this study partially have an influence on the dependent variable. The partial test results are as follows:

- 1) Effect of Age on the Effectiveness of Using AIS  
Based on the calculation, it is known that the significance value of  $t = 0.005 < \alpha = 0.05$  and beta value of -1.148. So  $H_1$  is accepted, this shows that Age has a negative effect on the Effectiveness of the Use of Accounting Information Systems at Rural Credit Banks in Badung Regency.
- 2) Effect of Work Experience on the Effectiveness of Using AIS  
Based on the calculation results it is known that the significance value of  $t = 0.001 < \alpha = 0.05$  and beta value of 0.486. So  $H_2$  is accepted, this shows that Work Experience has a positive effect on the Effectiveness of Using Accounting Information Systems at Rural Credit Banks in Badung Regency.
- 3) Effect of Education Level on the Effectiveness of the Use of AIS  
Based on the calculation results it is known that the significance value of  $t = 0.024 < \alpha = 0.05$  and beta value of 0.807. So  $H_3$  is accepted, this shows that the Education Level has a positive effect on the Effectiveness of the Use of Accounting Information Systems at Rural Credit Banks in Badung Regency.

***Effect of age on the effectiveness of the use of accounting information systems in rural banks in Badung regency***

The results of this test indicate that age has a negative effect on the effectiveness of the use of accounting information systems in people's credit banks in Badung Regency. This shows that the older the perception of the effectiveness of the system is lower because older employees tend to avoid risks and have difficulty using the system. The results of this study are in accordance with the results of research conducted by Anjani and Wirawati (2018), namely age has a significant negative effect on system use. Wirjono (2010) states that age is an intrinsic factor that is believed to influence the use of new information systems. This age difference will be associated with difficulties in processing the use of information systems. Older age tends to avoid the risks in the use of the system.

***Effect of Work Experience on the Effectiveness of Using Accounting Information Systems at BPR in Badung Regency***

The results of this test indicate that Work Experience has a positive effect on the Effectiveness of the Use of Accounting Information Systems at Rural Credit Banks in Badung Regency. This shows that the more experience employees have in using the system the more effective the accounting information system will be. The results of this study are in line with the results of research conducted by Moradi and Raghbi (2011) proving that work experience has a positive effect on the effectiveness of AIS. Vipraprastha and Sari (2016) indicate that the more training and experience gained by employees, the more effective the use of accounting information systems.

***Effect of Education Level on the Effectiveness of Using Accounting Information Systems at BPR in Badung Regency***

The results of this test indicate that the Education Level has a positive effect on the Effectiveness of the Use of Accounting Information Systems in Rural Credit Banks in Badung Regency. This shows that the higher level of education employees have, the more effective it will be to use accounting information systems at BPRs in Badung Regency. The results of this study are in line with research conducted by Dwijyanthi and Dharmadiaksa (2013), namely the level of education has a positive effect on individual performance of the use of AIS in the Denpasar City Government's Tax Office SKPD. Parnata, *et al* (2013) say that employees with higher education occupy a higher position in the organization and have greater access to decision making on available information. Education has a function to improve the qualifications of the workforce to be more productive. This is intended to increase labor productivity because education, both formal and non-formal, is expected to have the ability to better understand in adapting changes in the work environment.

## V. CONCLUSION

This study produces conclusions about how the theoretical relationship with the influence of differences in age, work experience and level of education on the effectiveness of the use of accounting information systems. There is empirical evidence that shows the influence of differences in age, work experience and educational level related to the effectiveness of the use of accounting information systems. This study proves that all variables that theoretically affect the effectiveness of the use of AIS. This is supported in accordance with the Theory of Reasoned Action (TRA) and the Technology Acceptance Model (TAM) which explains how the reasons for using accounting information systems using these technologies and how the attitudes and behavior of users accept accounting information systems in carrying out their duties. The results of this study are expected to provide a practical relationship for all users of accounting information systems. Specifically this research can provide input on the effect of differences in age, work experience and education level on users of accounting information systems. System users will also become more professional by knowing the factors that influence the effectiveness of the use of the system in carrying out its duties.

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