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The Analysis of Technology Acceptance Model (TAM) on The Use of Accounting Information System

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***Abstract*—This study aims at examining the behavioral aspects of the use of accounting information system at the Village Credit Institution (which is locally known as LPD) in Buleleng Regency which was tested by using the Technology Acceptance Model (TAM). This research was conducted using the survey method by distributing questionnaires to all LPD accounting in Buleleng Regency which consists of 114 respondents. The data obtained will be analyzed quantitatively using a statistical test tool based on Partial Least Square (PLS). The results of the study shown that (a) perceived ease of use has a significant effect on the attitude of the system user (attitude toward using) at the Village Credit Institution in Buleleng Regency; (b) The benefits of technology use (perceived usefulness) significantly influence the user's system attitude (attitude toward using) at the Village Credit Institution in Buleleng Regency; (c) The ease of use of technology (perceived ease of use) has a significant effect on the behavior of system users (actual use) at the Village Credit Institution in Buleleng Regency; (d) The attitude of using technology (Attitude Toward Using) has a significant effect on the behavior of system users (actual use) at Village Credit Institutions in Buleleng Regency. The results of the study was expected to provide theoretical benefits for the development of accounting science, especially related to behavior in the use of accounting information systems and contribute practically as input for management in order to improve the quality and behavior in the use of accounting information system.**

Keywords—Technology Acceptance Model; Accounting Information System; LPD.

I. INTRODUCTION

In era globalization, it has a huge impact for the world especially for companies. The survival of the company is largely determined by the ability to compete in the market. To be able to win the competition, the management must be able to make decisions based on inputs in the form of accurate, relevant information and punctual. The quality of information can be realized from the design of a good information system. Even, the large companies invest resources to increase productivity through the provision of sophisticated applications in enterprise information systems [1], [2]. Accounting Information System is the main vital tools for the company. The existence of accounting information system makes a company able to control and facilitate the improvement of its performance [3]. In addition, accounting information system will facilitate management accountants to obtain reliable, relevant, well-timed, understandable and tested financial information that can assist in making decision process.

In financial services, one of them is the Village Credit Institution (LPD), service to customers is very important to do. In addition to require accurate information in data processing, information systems are also used to facilitate customers in conducting transactions [4]. LPD also cannot be separated from demands to present relevant, accurate and timely financial information [3]. Information system performance is considered good if the information received sees the expectations and satisfaction of users of that information.

One of the concepts related to fulfill expectations and information satisfaction is the technology acceptance model (TAM). The concept of TAM is based on the theory of reasoned action (TRA) developed by Ajzen and Fishbein in 1975. TRA assumes that behavior is based on the individual's intention to engage in certain actions. Intention is determined by two factors, namely the individual's attitude towards the results of actions and opinions of the individual's social environment [5]. This theory showed that a person often acts based on their perception of what others think they should do. The TAM concept stated that a person's intention to use a system or technology is determined by two factors, namely the perceived usefulness, it is the level of individual trust that the use of technology will improve its performance, and perceived ease of use, which is the level of individual trust. Then, the use of technology makes it easier to complete work [6]. The research conducted by Santoso in 2010 actually found different result with the TAM concept. Perceived usefulness did not affect the user attitude (attitude toward using) in the

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utilization of the information technology systems. Because there is a different result with TAM concept from the previous study, so it motivates researchers to conduct this research to reexamine the behavioral aspects of the use of accounting information systems with the TAM approach. Then the subject of the research was all LPDs in Buleleng Regency. This consideration is also based on previous research findings in technology and information systems related to the TAM approach to the use of information systems [2], [3].

This study aims to examine the Technology Acceptance Model (TAM) of the use of Accounting Information Systems at Village Credit Institutions (LPD) in Buleleng Regency. Theoretically, the results of the study were expected to contribute to the development of accounting theory, especially in the field of Accounting Information Systems, related to Technology Acceptance Model (TAM). The results of this study were also expected to be inputs for relevant parties, especially for LPDs in Buleleng Regency. The findings of this study was expected to be an input for management in order to improve quality and behavior in the use of accounting information systems.

II. Literature Review

A. Technology Acceptance Model (TAM)

There are several models used to analyze several factors related to the use of information technology. There are several concepts used in analyzing the use of information technology, namely Theory of Reasoned Action (TRA), Theory of Planned Behavior (TPB) and Technology Acceptance Model (TAM) [7], [8].

In the aspect of classical psychology, TRA explains how human behavior is then mediated against individual intentions. In relation to TRA, it is explain more about the tendency of differences in human behavior while TAM is more likely to explain the relationship of human behavior as a user of an information system [9], [10].

The TAM model developed from psychological theory explains the behavior of information system users based on belief, attitude, intention, and user behavior relationship. The purpose of this model is to better explain the main factors of information system user behavior towards the use of information systems [11].

There are four constructs in the TAM concept, namely (1) perceived ease of use is a measure where technology is easy to use and understand, (2) perceived usefulness is a measure where a technology is believed to provide benefits to its users, (3) attitude toward using namely the attitude towards users of the system in the form of rejection or acceptance as a result of someone using technology in their work, (4) actual use is a real behavior in adopting a system (Fig. 1).

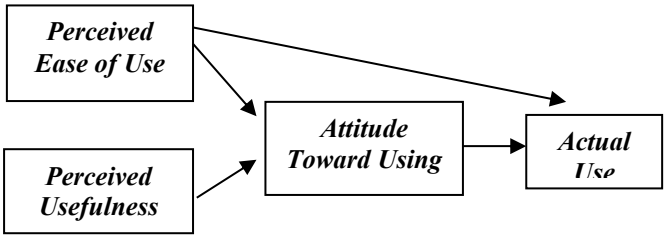

Fig. 1. Technology Acceptance Model (TAM) [8], [12].

B. Accounting Information System

Accounting Information Systems is a system designed to assist management processes in an organization. Accounting information system helps management to manage financial-related organizations. Accounting information system is a system that presents the use of processed data and the transactions they need to control, operate and conduct business planning [13]. In the Accounting Information System, there are several important elements that support the smoothness of the system [14], namely:

1. Human resources
   Humans are information systems that play a role in making decisions whether the system can play a role or not.
2. Equipment
   Equipment is an element of accounting information system that starts to be used at the time of the transaction, recording, until the production of financial statements.
3. Method
   The method in the accounting information system is a system and procedure which is an overview covering the entire course of activities from the time it starts until the end of the activity.

III. Research Method

A. Population and Sample

The population in this study were all Village Credit Institutions in Buleleng Regency, Bali.

The sample is part of the number and characteristics possessed by the population. The sample in this study is accounting from LPD in Buleleng Regency. With a total LPD population of 169 LPD with an error rate of 5%, the number of samples to be used is 114 respondents.

B. The Definition of Variable Operations

1. Perceived Ease of Use is defined as the benefits expected by IT users in carrying out their duties.
2. Perceived Usefulness is a level where a person believes that the use of the system will help him in improving performance in an organizational context.
3. Attitude toward using is an attitude to using a system in carrying out its work.
4. Actual use is a reaction or behavior to the actual use of technology.

C. Model of Data Collection

The data collection method used in this study was questionnaires. We used questionnaires related to behavioral aspects with the TAM approach [10]. Questionnaires were given to the sample or respondents, namely LPD accounting in Buleleng Regency to be answered, which which contains their assessment of the variables in this study. The data collection instrument in this study is a list of statements with the answer range using a Likert scale, namely:

1 = strongly disagree / very not considered
2 = disagree / Not considered
3 = hesitation
4 = agree / consider
5 = strongly agree / highly considered

D. Procedure of Collecting Data

This study used the partial least square (PLS) technique, which then the data will be processed with the help of SPSS program (Statistical Package for Social Science). SPSS was used to input data obtained from research results.

IV. Results And Discussion

A. *Validity and Reliability Test*

Validity test results throughout the question this study declared invalid. Reliability testing which states that the instrument variables in this study is reliable.

B. Descriptive Statistics Analysis

Based on the results of Descriptive Statistics Analysis obtained information that the Perceived Ease of Use variable has a minimum value of 0 and maximum 44 with an average value of 33.94 and a Standard Deviation of 6.755. And for the Perceived Usefulness variable the minimum value is 0 and the maximum is 35 with Standard Deviation 6,244. For Attitude Toward variable, the minimum value is 0 and the maximum value is 20 with Standard Deviation 3,237. The Actual Use variable has a minimum value of 0 and a maximum value of 40 with a standard deviation of 7.276 (Table 1).

Table 1. Results of Descriptive Analysis of Research Variables Statistics

	N	Min	Max	Mean	Std. Deviation
Perceived_Ease_of_Use	113	0	44	33.94	6.755
Perceived_Usefulness	113	0	35	30.79	6.244
Perceived_Toward_Using	113	0	20	14.65	3.237
Actual_Use	113	0	40	32.57	7.276
Valid N (listwise)	113				

C. *Regression Analysis*

1. Model 1 Regression Test Results

We calculated coefficient of determination (R) is 0.85 (Table 2) which indicates that the variable correlation level is low. Whereas R Square (R^2) obtained is 0.731 which can be concluded that the first model namely perceived easy of use has a significant effect on the user's system attitude (attitude toward using) (Table 3).

Table 2. Summary Model Table for Model 1

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.855[a]	.731	.716	1.03539

[a]Predictors: (Constant), Perceived Ease of Use (X_1)
[b]Dependent Variable: Attitude Toward Using (Y_1)

Table 3. Model 1 Regression Test Results

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.633	.944		1.730	0.86
	Perceived Ease of Use (X_1)	.383	.027	.800	14.049	.000

[a]Dependent Variable: Attitude Toward Using (Y_1)

2. Model 2 Regression Test Results

Table 4 is the result of the second model regression test.

Table 4. Summary Model Table for Model 2

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,796[a]	,634	,631	1,968

[a]Predictors: (Constant), Perceived Usefulness (X_2)
[b]Dependent Variable: Attitude Toward Using (Y_1)

We calculated coefficient of determination (R) is 0.796 which indicates that the variable correlation level is low.

Table 5. Model 2 Regression Test Results

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	1.633	.944		1.730	0.86
	Percieved Usefulness (X_2)	.383	.027	.800	14.049	.000

[a]Dependent Variable: Attitude Toward Using (Y_1)

While R Square (R^2) is obtained at 0.634 which can be concluded that the second model is the benefits of technology use (perceived usefulness) significantly influence the attitude of the system user (attitude toward using) (Table 5).

3. Model 3 Regression Test Results

Table 6 is the result of model 3 regression test.

Table 6. Summary Model Table for Model 3

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.774[a]	.599	.595	4.631

[a]Predictors: (Constant), Perceived Ease of Use (X_1)
[b]Dependent Variable: Actual Use (Y_2)

We calculated coefficient of determination (R) is 0.774 which indicates that the variable correlation level is low (Table 7).

Table 7. Model 3 Regression Test Results

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	4.284	2.241		1.911	0.59
	Percieved Ease of Use (X_1)	.833	.065	.774	12.865	.000

[a]Dependent Variable: Actual Use (Y_2)

Whereas R Square (R^2) obtained is 0.599 which can be concluded that model 3 that is ease of use of technology (perceived ease of use) significantly influences the behavior of system users (actual use).

4. Model 4 Regression Test Results
   Table 8 is the result of the model 4 regression test.

Table 8. Summary Model Table for Model 4

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.793[a]	.629	.625	4.455

[a]Predictors: (Constant), Attitude Toward Using (X_3)
[b]Dependent Variable: Actual Use (Y_2)

We calculated coefficient of determination (R) is 0.793 which indicates that the variable correlation level is low (Table 9).

Table 9. Model 4 Regression Test Results

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	6.469	1.950		3.318	.001
	Attitude Toward Using (X_3)	1.782	.130	.793	13.705	.000

[a]Dependent Variable: Actual Use (Y_2)

Whereas R Square (R2) obtained is 0.629 which can be concluded that the fourth model, namely the attitude of using technology (Attitude Toward Using) significantly influences the behavior of users of the system (actual use).

V. CONCLUSION

Based on the results of the research that has been done, the following conclusions can be drawn:

1. Perceived ease of use has a significant effect on the attitude of the system user (attitude toward using) at the Village Credit Institution in Buleleng Regency.
2. The benefits of technology use (perceived usefulness) significantly influence the user's attitude system (attitude toward using) at the Village Credit Institution in Buleleng Regency.
3. The ease of use of technology (perceived ease of use) has a significant effect on the behavior of system users (actual use) at Village Credit Institutions in Buleleng Regency.
4. The attitude of using technology (Attitude Toward Using) has a significant effect on the behavior of system users (actual use) at the Village Credit Institution in Buleleng Regency.

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