

# The Analysis of User's Intention in Using the Accounting Information System Technology

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The aim of this research is to analyze the relationship between the perception of usefulness, the perception of ease of use, user's attitude, and behavioral relationship among the users with the user's intention in using the accounting information system technology. Data were collected by questionnaires distribute to all respondents during January to July 2011. The respondents of this research are 150 staffs as the users of accounting information system technology, at Regional Water Company in Purbalingga, Banyumas, Cilacap, and Banjarnegara Districts, Central Java, Indonesia. One hundred and fifty questionnaires were distributed and 33 questionnaires returned. This research would like to observe the behavior of the users of accounting information system technology. The research design was exploratory study with survey method. The sampling technique in this research was purposive sampling, with the criteria are employees at Regional Water Company in those districts who use the accounting information system technology in presenting the financial report. This paper tests the hypothesis that perception usefulness, perception ease of use, user's attitude, and behavioral relationship among the user have positive and significant relationship with the user's intention in using the accounting information system technology. Perception usefulness, perception ease of use, user's attitude, and behavioral relationship among the users were measured with *t*-statistic on structural equation modeling by Partially Least Square Program. The findings of this research supported those hypotheses. The result showed that all those independent variables have a positive and significant relationship with the user's intention in using the accounting information system technology.

*Keywords:* perception usefulness, perceived ease of use, user's attitude, behavioral relationship among the user, user's intention

## Introduction

The successful development of accounting information system needs the supporting of many factors represented by the user's satisfaction. Many governmental agencies have implemented the accounting information system technology, but they have not maximized the implementation yet. The fact shows that even though there is such technology, many staffs still use manual system, because it is easier to operate.

The system development needs prudent and accurate attitude in planning and implementation, to avoid the user's resistance. It needs the user's involvement in the development process. The successfully system development not only depends on the technical competence of the development teams, but also depends on the

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behavioral aspect of the users (Bodnar & Hopwood, 2010). The behavioral aspects of the users consist of motivation factors, i.e., the perception of use, the perception of ease of use, behavioral relationship among the users, user's attitude, and user's intention. The successful implementation of accounting information system technology depends on how the system runs, the simplicity of the system to the user, and the benefit of the technology (Goodhue, 2005).

Based on this research, The authors use the variables of the perception of usefulness, the perception of easy of use, the user behavior relation, the user's attitude of accounting information system technology, and the user's intention in using the accounting information system technology.

The authors try to develop the behavioral aspects of the users of the accounting information system technology to support the activity of individual performance in governmental offices with the motivation factors, such as perception of usefulness, perception of easy to use, behavioral relation among the users, user's attitude, and user's intention in using accounting information system technology.

This research has been organized into five parts. After introduction in the first part, the theory and hypotheses have been given in the second section. The third section is devoted to methodology. Then, the findings and discussion are in section four. Conclusion is rendered in the fifth section. And finally, the authors present the references.

### **Theory and Hypothesis**

The *Theory of Reasoned Action* (TRA) model explains that user gives high scores of evaluation, not only because the characteristics of the system, but also how far the system can fulfill user's needs (*usefulness and easy of use*). Trust is an important thing from the system user in order he/she feels and awares that the new information system technology can increase the user's performance in completing his/her works.

TRA is a theory that related to individual attitude and behavior on doing the activity. This theory is a bases for the *Technological Acceptance Model* (TAM), namely, the psychological theory which explains the user's attitude of information technology, that based on believe, attitude, and user's behavior relationship.

Jogiyanto (2007) explained that information technology was the fourth resource after human resources, capital resources, and machines. The information technology needs to be developed continuously in order to increase the benefit for the users, because the user's needs always change. Managers need the reliability of information technology on the evaluation of individual's performance to insure that computerized based system could be used to control their performance.

Goodhue and Thomson (2005) proposed a model of technology compatibility task relation as a reference of user evaluation on information system. The compatibility between task and technology can give simplicity to find the data needs, authority on data access, time lines in completing the task, simplicity in operating the system, and the reliability of the system. Therefore, individual user is expected to be able to use the information technology optimally.

Company invests large amount of investment to improve its performance by implementing the information system technology. Thus, if the technology is not used optimally, the companies will loss because the cost of technology is higher than its benefit.

Ghoodhue (2005) measured the user evaluation on information system by the compatibility of task technology, namely, the relationship between task needs, individual competence, and technology function on

the company information system. Similar research also have been conducted by Sugeng (1995) and Setyaningsih and Supriyatna (2009) who found that the task compatibility and technology affected positively to the performance improvement.

Based on explanations above, the hypotheses on this research are:

H1: The perception of ease of use on the accounting information system technology has a positive and significant relationship with perception of usefulness on the accounting information system technology.

H2: The perception of ease of use on the accounting information system technology has a positive and significant relationship with the user's attitude on the accounting information system technology.

H3: The perception of usefulness has a positive and significant relationship with the user's attitude on the accounting information system technology.

H4: Behavioral relationship among the users has a positive and significant relationship with the user's intention on using the accounting information system technology.

H5: The perception of usefulness has a positive and significant relationship with the user's intention on using of the accounting information system technology.

H6: The user's attitude has a positive and significant relationship with the user's intention on using of the accounting information system technology.

### Methodology

The populations of this research are the users of accounting information system technology at Regional Water Company in the districts of Banyumas, Purbalingga, Banjar Negara, and Cilacap, Central Java, Indonesia. The amounts of respondents on this research are predicted among 150 staffs. One hundred and fifty questionnaires were distributed around February until July 2011 and 33 questionnaires returned.

This research would like to observe the behavior of the users of accounting information system technology. The research design is exploratory study with survey method. The sampling technique in this research is purposive sampling, with the criteria are employees at Regional Water Company in those districts who use accounting information system technology in presenting the financial report.

Data collection used the following techniques:

- Observation about the office condition and how the employees do their works;
- Questionnaires that distributed to the respondents.

Hypothesis testing uses the *structural equation modeling* with *partial least square* (PLS). PLS results *the outer model* and *the inner model testing*.

#### (1) Outer model

This model analyses the relationship between every block of indicator (manifest) with its construct (Ghozali, 2008). It can be analyzed from:

- Convergent validity , which is used to measure the validity of indicators in measuring the *construct*;
- Discriminant Validity, which is used to measure the validity of construct in predicting the measurement of indicators on each block.

#### (2) Inner model

*Inner model* is used to test the structural model by analyzing the relationship between each *construct*. It can be seen from the coefficient of parameter,  $t_{\text{statistic}}$ , and  $R$  square.

## Finding and Discussion

### Finding

The results of *structural equation modelling* (SEM) used PLS are as follows:

**Outer model.** There are five latent variables on this research, i.e., perception of usefulness, perception of ease of use, behavior relationship among the users, user's attitude, and user's intention. The variable of perception usefulness has seven indicators, the variable of ease of use has five indicators, the variable of behavioral relationship among the users has five indicators, the variable of user's attitude has three indicators, and the variable of user's intention has three indicators. All of these variables were analyzed and removed the indicator that has loading factor less than 0.5.

**Convergent validity testing.** The results of correlation between indicator and its construct could be seen from the *results of factor loadings*. Convergent validity is used as a measurement of indicator validity in measuring its latent variables. Because the indicators on this research are reflective, therefore can be marked by correlation between scores of the items and score of the construct (*score of the component*) that calculated by PLS program. From the output of analysis, it can be seen that the minimum value of loading factor of all indicators is 0.510 and significant. Therefore, the remaining indicators can be used as a predictor of its construct and fulfill the criteria of *convergent validity*.

The output of PLS showed that the construct of behavioral relationship among the users has root of AVE 0.9429, which is higher than the correlation with other constructs, i.e., 0.8544, 0.9127, 0.8849, and 0.9190. The construct of perception usefulness has a root of AVE at the amount of 0.9300, which is higher than the correlation of the perception usefulness with other constructs, i.e., 0.8544, 0.8666, 0.8848, and 0.8755. The construct of ease of use has a root of AVE at the amount of 0.9534 that is higher than the correlation of ease of use with other construct, i.e., 0.9127, 0.8666, 0.8202, and 0.8563. The construct of user's attitude has a root of AVE at the amount of 0.9473 that is higher than the correlation of user's attitude with other construct, i.e., 0.9190, 0.8755, 0.8563, and 0.9385. The construct of user's intention has a root of AVE at the amount of 0.9674 that is higher than the correlation of other constructs, i.e., 0.9385, 0.8849, 0.8848, and 0.8202. Therefore, it can be concluded that all construct comply with the criteria of *discriminant validity*, in which the measurement on the block of the construct is higher than the measurement on other blocks of construct. In order to give more assurance that the construct of latent variable can predict the indicators of its block which is better than indicators in other blocks, can be analyzed by the output of *cross loading*.

**Composite reliability.** All constructs have a high *composite reliability*, namely, more than 0.80 as the requirement of PLS. Thus, it can be concluded that all constructs are reliable in predicting the indicator in its block.

**The analysis of structural testing (inner model).** *R-square* of the variable of perception usefulness is 75.09%, the variable of user's intention is 97.36%, and the variable of user's attitude is 80.48%. It complies with the model on this research, in which the perception usefulness is affected by the perception ease of use. Based on those results, it could be explained that the alteration of the construct of perception usefulness is affected by the perception ease of use at the level of 75.09%, and the remaining of 24.91% is affected by other variables outside of the model.

User's intention is affected by perception usefulness, user's attitude, and the relationship among the users. Those constructs can explain the alteration of the construct of user's intention at the level of 97.36%, and the

remaining of 2.64% affected by other constructs.

User's attitude is affected by perception usefulness and perception ease of use. Those construct can explain the alteration on the construct of user's attitude at the level of 80.48%, and the remaining of 19.52% is affected by other constructs.

**Hypothesis testing.** From the output of analysis, conclusions are as follows:

(1) The perception of ease of use of accounting information system technology has a positive and significant relationship with the perception of usefulness of accounting information system technology. It can be seen from the value of original sample estimate of 0.866, and *t*-statistic of 29.898.

(2) The perception of ease of use has a positive and significant relationship with the user's attitude on the usage of accounting information system technology. It can be concluded from the value of original sample estimate of 0.392, and *t*-statistic of 6.302.

(3) The perception of usefulness has a positive and significant relationship with the user's attitude on the usage of accounting information system technology. It can be concluded from the value of original sample estimate of 0.535, and *t*-statistic of 7.744.

(4) The behavioral relationship among the users has a positive and significant relationship with the user's intention on the usage of accounting information system technology. It can be concluded from the value of original sample estimate of 0.165, and *t*-statistic of 2.863.

(5) The perception of usefulness has a positive and significant relationship with the user's intention on the usage of accounting information system technology. It can be concluded from the value of original sample estimate of 0.137, and *t*-statistic of 2.438.

(6) The user's attitude on the usage of accounting information system technology has a positive and significant relationship with the user's intention on the usage of accounting information system technology. It can be concluded from the value of original sample estimate of 1.015; and *t*-statistik of 15.754.

## Discussion

**The relationship between the perception of ease of use on accounting information system technology and the perception of usefulness on accounting information system technology.** This research would like to re-examine the relationship between the perception of ease of use on the accounting information system technology and perception of the usefulness on accounting information system technology. Prior research had been conducted by Davis (1989), which showed that the perception of ease of use on accounting information system technology had a positive and significant relationship with the perception usefulness on accounting information system technology.

This research has similar finding with Davis (1989), which showed that the perception of ease of use on accounting information system technology had a positive and significant relationship with the perception of usefulness on accounting information system technology. It can be seen from the results of *original sample estimate 0.866, and t-statistik 29.898* which is higher than *critical value* of 1.96. The rationalization of this finding because of the perception of ease of use is a basic confidence in decision making process. Therefore, if someone believes that the technology is ease of use, thus he/she uses the technology. This finding also agrees with Jogiyanto (2007) who argued that the user of the system always would like to use the system if there were many benefits from the system.

**The relationship between the perception of ease of use on accounting information system technology and the user's attitude on accounting information system technology.** The output of PLS showed that the

*original sample estimate 0.392*, and *t-statistic 6.302* is higher than *critical value of 1.96*. This finding means that the perception of ease of use on accounting information system technology has a positive and significant relationship with the user's attitude on the usage of accounting information system technology. The finding of this research is consistent with Davis (1989), who showed that the perception of ease of use on the accounting information system technology had a positive and significant relationship with the user's attitude on the usage of accounting information system technology.

**The relationship between the perception of usefulness on the accounting information system technology and user's attitude on the usage of accounting information system technology.** The output of PLS showed that the *original sample estimate 0.535*, and *t-statistic 7.744* is higher than *critical value of 1.96*. It means that the perception of usefulness of accounting information system technology has a positive and significant relationship with the user's attitude on the usage of accounting information system technology. This finding is in-line with Davis (1989), who showed that the perception of usefulness of accounting information system technology had a positive and significant relationship with the user's attitude on the usage of accounting information system technology.

**The relationship between behavioral relationship among the users and the user's intention on using the accounting information system technology.** The output of PLS showed that the *original sample estimate 0.165*, and *t-statistic 2.863* is higher than critical value of 1.96. It means that the behavioral relationship among the users has a positive and significant relationship with the user's intention on using the accounting information system technology.

The rationalization of this finding is because of the behavioral relationship among the users direct the same perception among the users, in which it encourages the user to believe that such technology is very important in supporting his/her jobs. Therefore, this condition improves the user's intention on using the accounting information system technology.

**The relationship between the perception of usefulness on the accounting information system technology and the user's intention on using the accounting information system technology.** The output of PLS showed that the *original sample estimate 0.137*, and *t-statistic of 2.438* is higher than the *critical value of 1.96*. It means that the perception of usefulness on the accounting information system technology has a positive and significant relationship with the user's intention on using the accounting information system technology. This finding is in accordance with Davis (1989) and Dewayanto (2011) which showed that the perception of usefulness impacted the user's intention on using accounting information system technology.

**The relationship between the user's attitude and the user's intention on using accounting information system technology.** The output of PLS showed that the *original sample estimate 0.137*, and *t-statistic of 2.438* is higher than the *critical value of 1.96*. It means that user's attitude has a positive and significant relationship with the user's intention on using the accounting information system technology. This finding agrees with Davis (1989) and Darsono (2007) who showed that user's attitude affected significantly to the user intention on using accounting information system technology.

## Conclusions

The conclusions of this research are as follows:

(1) The perception of ease of use of the accounting information system technology has a positive and significant relationship with the perception of usefulness of the accounting information system technology.

(2) The perception of ease of use has a positive and significant relationship with the user's attitude on the using of accounting information system technology.

(3) The perception of usefulness has a positive and significant relationship with the user's attitude on the using of the accounting information system technology.

(4) The relationship behavioral among the users has a positive and significant relationship with the user's intention on the usage of the accounting information system technology.

(5) The perception of usefulness has a positive and significant relationship with the user's intention on the using of the accounting information system technology.

(6) The user's attitude on the using of the accounting information system technology has a positive and significant relationship with the user's intention on the using of the accounting information system technology.

### References

- Adams, D. A., Nelson, R. R., & Todd, P. A. (1992). Perceived usefulness, ease of use, and usage of information technology: A replication. *MIS Quarterly*, 16, 227-247.
- Bagozzi, R. P. (2007). The legacy of the technology acceptance model and a proposal for a paradigm shift. *Journal of the Association for Information Systems*, 8(4), 244-254.
- Baridwan, Z. (2000). *Accounting information system*. Yogyakarta, Indonesia: BPFE Publisher.
- Bodnar, G. H., & Hopwood, W. S. (2010). *Accounting information system*. New Jersey: Prentice Hall.
- Chuttur, M. Y. (2009). Working Papers on Information System 09. In *Overview of the technology acceptance model: Origins, developments and future directions*. USA: Indiana University.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-340.
- Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management Science*, 35, 982-1003.
- Ghozali, I. (2008). *Structural equation modelling: Alternative method with partial least square (PLS)*. Semarang, Indonesia: Diponegoro University Publishing.
- Goodhue, D. L., & Thompson, R. (1995). Task-technology fit and individual performance. *MIS Quarterly*, 19(2), 213-236.
- Handayani, R. (2007). Proceeding from National Accounting Symposium X '07. *The analysis of factors influencing user's intention in using accounting information system*. Makassar, Indonesia.
- Ifada, L. M. (2008). Proceeding from National Accounting Symposium XI '08. *The impact of information technology relatedness to the company performance*. Pontianak, Indonesia.
- Jogiyanto, P. D. (2007). *Behavioral accounting information*. Yogyakarta, Indonesia: Andi Pustaka.
- Latifah, L. (2007). Proceeding from National Accounting Symposium X '07. *Organization behavioral factors in implementing local government financial accounting system*. Makassar, Indonesia.
- Lestari, N. (2007). Proceeding from National Accounting Symposium X '07. *The impact of information technology relatedness to firm performance with knowledge management capability as an intervening variables*. Makassar, Indonesia.
- Ramdhani, N. (2007). *Behavioral model on the user of information technology: The development of technology acceptance model*. Retrived from <http://www.google.com/pdf>
- Segars, A. H., & Grover, V. (1993). Re-examining perceived ease of use and usefulness: A confirmatory factor analysis. *MIS Quarterly*, 17, 517-525.
- Setyaningsih, S., & Supriyatna, I. (2009). The influence of task compatibility and the usage of information technology to auditor's performance. *Journal of Economics, Finance, Banking, and Accountancy*, 1(2), 289-308.
- Stewart, T. (1986). *Task fit, ease-of-use and computer facilities*. Norwood, N.Y.: Ablex.
- Subramanian, G. H. (1994). A replication of perceived usefulness and perceived ease of use measurement. *Decision Sciences*, 25 (5/6), 863-873.
- Sugeng, H. (1998). The role of compatibility between task and information technology to the individuals performance. *Journal of Economics and Business Indonesia*, 13(3), 37-56.
- Umar, H. (2004). *Accounting reseacrh*. Jakarta, Indonesia: Gramedia Pustaka Utama.
- Venkatesh, V. (2000). Determinants of perceived ease of use: Integrating control, intrinsic motivation, and emotion into the technology acceptance model. *Information systems research*, 11, 342-365.
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27(3), 425-478.