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by Vinna Vinna

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E-Filing Acceptance Employing Technology Acceptance Model and Theory of Planned Behavior

Vinna Rahmayanti Setyaning Nastiti[a)], Evi Dwi Wahyuni[b)], Gita Indah Marthasari[c)], Belli Kafilla Gani[d)]

Department of Informatics, Universitas Muhammadiyah Malang, Malang, Indonesia

Corresponding Author: [a)]vinastiti@umm.ac.id
[b)]evidwi@umm.ac.id
[c)]gita@umm.ac.id
[d)]belliiceman@gmail.com

Abstract. Taxation has become a state requirement as the largest foreign exchange contributor to the country, required in various activities. Especially in today's modern era, which frequently utilizes technology in daily lives to fulfill daily needs, taxation in Indonesia has currently initiated to implement a new system requiring technology, which is an annual tax-based online reporting system, acknowledged as an e-filing system. This study refers to the number of satisfied users towards the e-Filing system as a new system owned by the Directorate General of Taxes (DJP) as a step of innovation and renewal in the submission of annual tax reports.

INTRODUCTION

E-filing is a tax service that functions as a medium for delivering notification letters to taxpayers via electronic means for a real-time retrieval through the internet or the services of an application provider selected by the Directorate General of Taxes (DGT) [1]. Tax actors would utilize the report submission system and further report the Annual Tax Return (SPT) using e-Filing system.

The success of an information system was due to the quality of information and acceptance of the system based on user satisfaction [2]. Previous research reported that the factors affecting the taxpayers using the e-filing system include: perceived usefulness, social factors, perceived convenience, and voluntary [3]. The Technology Acceptance Model (TAM) and Theory of Planned Behavior (TPB) are employed to determine a system both in terms of technology acceptance and user attitudes [4], The TAM model measures the acceptance of information technology based on the construct of technology use. TPB is implemented to predict and explain human behavior under various conditions. The combination of TAM and TPB models is expected to provide better measurement for a system based on the construct of technology use and the behavior of technology users.

TAM was developed by Davis et al. based on a pre-existing model, which is Theory Reaction Action (TRA). TAM itself experienced a slight addition to the construct of TRA model, which is Perceived Ease of Use and Perceived Usefulness factors [5]. The concept of the relationship between constructs in the TAM model is described in Figure 1.

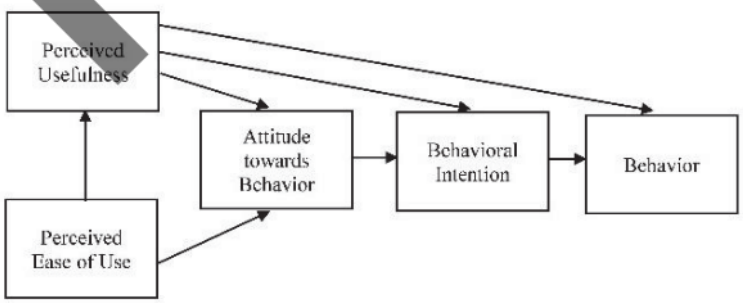

FIGURE 1. TAM model

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Figure 1 demonstrates that TAM tests such as Perceived Usefulness and Perceived Ease of Use affect Attitude towards Behavior, Behavioral Intention, and Behavior. The TAM model outlines the concept of technology acceptance in the attitudes and interests of technology users. The TPB model was developed from the TRA concept which was added with Attitude towards Behavior and Subjective Norms variables. Figure 2 indicates the relationship between constructs in the TPB model.

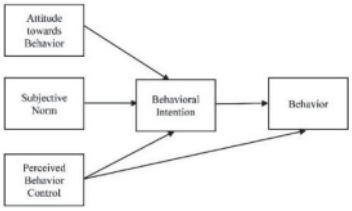

FIGURE 2. TPB model

The TPB model in Figure 2 indicates the existence of a variable such as Subjective Norms defined as a means for a person viewing or evaluating the beliefs influencing the decision making.

The combination of TAM and TPB provides a concept of use in technology acceptance and user attitudes in understanding technology. Safeena et. al. conducted a study on the combination of TAM and TPB, particularly for a case study on Internet Banking Adoption. The results of this study indicate that the most influential factor on Intention to Use of Internet Banking is Perceived Usefulness, presenting a number of 0.36 and is statistically significant in the use of Internet Banking. In this study, the TAM-TPB combination uses a regression model, unable to test the latent variables. This study however excludes the value of goodness of fit, in which the built model could not be evidently interpreted.

Based on previous research, this study aims to determine the effect of variables on the TAM-TPB combination model on the e-filing system. The TAM-TPB model used in this study is the Partial Least Square (PLS) to test the relationship between latent variables, which could not be directly measured, requiring accompanying indicators. The PLS method has several advantages which certainly support this research, for example, the data does not have to be normally distributed, and a very large amount of data is not required. PLS is also a tool to confirm a theory or can also explain whether there is a relationship between latent variables [6].

METHODS

This study analyzes the level of success and behavioral interest in the e-filing system using the PLS model. The e-Filing system is a system owned by the Directorate General of Taxes (DGT) as a means of reporting the annual SPT system on an online regular basis. The utilized sampling technique is simple random sampling where each respondent has similar rights in filling out the questionnaire. Respondents in this study include the users of the e-filing system who were private individual taxpayers. The research flow chart is illustrated in Figure 3.

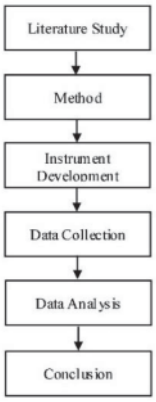

FIGURE 3. Research flowchart

The research instrument in this study was a questionnaire, in which the questions from the questionnaire indicate each indicator of the construct variable. The use of the scale on the questionnaire uses a Likert scale. This scale is intended to assess and measure a person's opinion as well as perception in the use of a system [7]. The questionnaire data was collected by using the Slovin method obtaining 100 respondents. The sampling technique uses a simple random sampling method so that all respondents from the population have an equal chance of filling out the questionnaire [8]. The results of the questionnaire were then tested by using a validity test and a questionnaire reliability test.

The design of the hypothesis was composed of the design of the success assessment construct and behavioral interest in the e-filing system. The design of the hypothesis undertaken from the TAM and TPB models is illustrated in Figure 4.

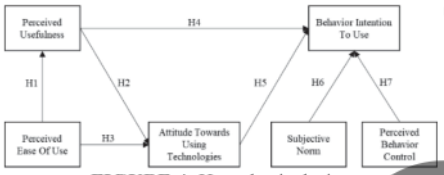

FIGURE 4. Hypothesis design

Figure 4 illustrates that there are 7 research hypotheses, describing the relationship between variables. Table 1 contains a description of the hypothesis design.

TABLE 1. Hypothesis design

Number	Hypothesis
1	Perceived ease of use has a positive relationship to the construct of Perceived Usefulness on the use of e-Filing
2	Perceived usefulness has a positive relationship to Atitude towards Using Technology towards the use of e-Filing.
3	Perceived ease of use has a positive influence on attitudes towards Attitude towards Using Technology towards the use of e-Filing
4	Attitude towards Using Technology has a positive relationship to Behavioral Intention to Use in the use of e-Filing
5	Perceived Usefulness has a positive relationship to Behavioral Intention to Use on the use of e-Filing
6	Subjective norm has a positive relationship to Behavioral Intention to Use on the use of e-Filing
7	Perceived Behavior Control has a positive relationship with Behavioral Intention to Use interest in the use of e-Filing

The items contained in Table 1 are described in accordance with each indicator where Perceived Ease of Use has 3 indicators, Perceived Usefulness has 4 indicators, Attitude towards Using Technology has 3 indicators, Subjective Norms has 4 indicators, Behavioral Intention to Use has 3 indicators, and Perceived Behavior Control has 4 indicators. Each variable along with the indicators constructing the construct model is illustrated in Figure 5. The data obtained will then be tested by seeing whether or not there is a correlation between the existing indicators, if the significance number is <0.05 then it is stated that there is a correlation if the significance number is >0.05 then it is declared to have no correlation. [9].

The Partial Least Square model indicates the results of the indicator relationship to the latent variable and the relationship between each latent variable. The evaluation of the model utilizes the RMSEA value.

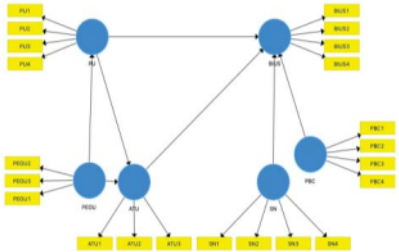

FIGURE 5. Partial Least Square model design

RESULTS AND DISCUSSION

The results and research were generated from testing the questionnaire, conducted on 30 respondents. The questionnaire was tested by the validity and reliability test. The validity test on the questionnaire indicates the results that P-value of all questionnaire items was 0.000, indicating that all questionnaire items were significant. Questionnaire reliability test served to determine whether the instrument was trusted and the question items were consistent. The results of the reliability test using Cronbach's alpha value indicated a value of 0.763. The Cronbach alpha value or high reliability value must be above 0.70 in order to be said to be reliable [10]. Cronbach's alpha of more than 0.6 means that the research instrument was trusted and eligible for this study.

The next stage was progressed by estimating the model through Partial Least Square from the results of the questionnaire. Convergent validity testing on each research indicator item was used to evaluate undimensionality. The criteria provisions were deemed reflexive if the loading factor value ranged from 0.5 to 0.6. The results of parameter estimation are illustrated in Figure 6.

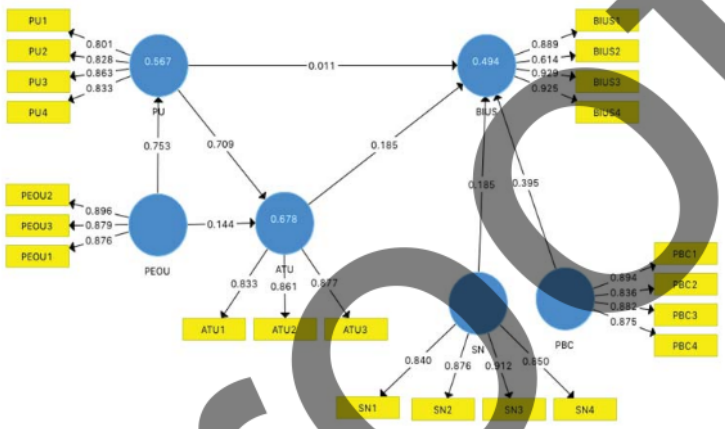

FIGURE 6. Model estimation of Partial Least Square

Each indicator in Figure 6 presents the values of loading factor ranging from more than 0.6, indicating that each indicator has a correlation to the construct variable. In accordance with the research objectives, the success of the e-filing system is closely related to the use of the system and consumer behavior.

Hypothesis testing was performed by using T test to determine the significance of one construct variable to another construct variable. The results of the t test is illustrated in Figure 7.

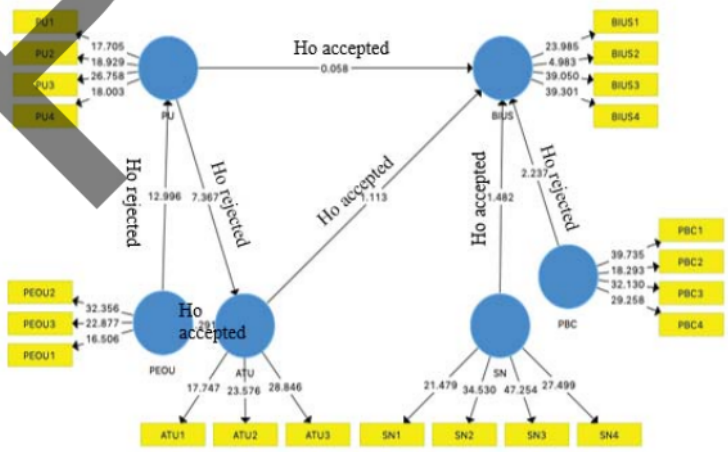

FIGURE 7. Results of Partial Least Square hypothesis testing

Figure 7 displays the 3 combinations of construct variables which are influential on the success of e-filing system. The Perceived Behavior Control variable affects the Behavioral Intention to Use by 39.5%. Higher value is interpreted that the user has a good attitude in using the e-filing system. Behavioral control in this case relates to the control of a person's perception in using a system. The Perceived Ease of Use variable affects the Perceived Usefulness by 75%. The e-filing system has an ease of use enabling the users to obtain more benefits when using e-filing. Since the system could rapidly report notification letters in anywhere and anytime when required, the system is thus beneficial for performance and productivity in terms of annual SPT reporting. The Perceived Usefulness variable has a relationship of 70.9% to the Attitude towards Using Technology variable. Benefits that a system can provide both in terms of function and performance will indirectly provide satisfaction for users to use the system itself. The e-filing system is hence advantageous enabling that taxpayer behavior in implementing the system itself.

CONCLUSIONS

The e-filing system presents a good level of significance ranging from behavioral control, usability level, convenience level and social behavior. The e-filing system is deemed successful in its implementation as an annual SPT receipt, containing the behavioral control, the level of usability, the level of convenience and social behavior supporting the performance or goals of the e-filing system itself. The interest of users towards this system represents a good outcome, since ease of use and user behavior affect the system users, but the user attitude towards the system itself displays unsatisfactory.

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