Evaluation of acceptance of information systems in state university with theory of planned behavior and theory of acceptance model approaches

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CHRONICLE	ABSTRACT
	Development of information systems in state universities, is needed in order to support more effective and efficient performance. This research was conducted to evaluate the factors that influence the intensity and behavior of users when using user systems. The sample are 240 users which were determined by using the convenience sampling method. The result confirms that the intensity of the use of the system by users is influenced by attitudes, subjective norms, and behavioral control. With the Theory of Acceptance Model (TAM) approach, the researchers also find that intensity is positively influenced by users' perceptions of system use and convenience. User intensity will increase their use of the system. In addition, the researchers found that the behavior in terms of using the system was also influenced by behavioral control and the user's perception of behavior in using the system. These results also show that the merging of the TAM and TPB models will have a greater impact on both the intensity and the actual behavior of users in the utilization of the system. The study has social implications for system developers, the user's psychological condition and system characteristics need to be considered in developing the system for future studies.

1. Introduction

At present, public sector performance in Indonesia is still relatively low and needs to be improved (Wardhana, 2019). According to research by the Ombudsman (a public institution that has the task of overseeing the performance of government services in Indonesia), it was found that 44% of public institutions have excellent performance, 48% are ranked middle and 11% have poor performance (Taher, 2016). One strategy or policy that can be used to improve government performance is by providing information systems because system development can increase productivity (Lipaj & Davidavičienė, 2013; Torkestani, Nader, & Haghighat, 2014; Vasarhelyi, 2017; Simmons; & Biss, 2008). The development of an integrated information system will improve internal processes and reduce costs and their impact will improve organizational performance (Lipaj & Davidavičienė, 2013; Vasarhelyi, 2017; Torkestani et al., 2014). In addition, organizations that pay more attention for improving the quality of systems, information, and information systems, are more content about the results of their organizations (Abrego-Almazán, Sánchez-Tovar, & Medina-Quintero, 2017). Information systems maintain organizational competitive advantage and facilitate sustainable growth and profitability (Olugbode et al., 2008). Thus, information systems have an important role in improving all economic sectors (Mohamed Ali & Younes, 2013). Improved organizational performance resulting from the development of information systems is also evident in public organizations. Al-Tit (2016), using 25 governmental institutions as a research sample, found that human, organizational, technological and environmental factors underlie system implementation and this has an impact on improving organizational performance. Information systems will

assist organizations in planning, decision-making and communication processes (Davis, Bagozzi, & Warshaw, 1989). These conditions are because, basically, in the development of systems, public and private organizations have the same characteristics (Watchaton & Krairit, 2018).

The same condition has also occurred at Semarang State University, which is a public entity. This public institution has developed a financial information system. This information system provides services to users seeking to obtain information on income earned and the relevant calculations. This system was developed so there would be transparency in the calculation of rewards obtained by users, and information on the receipt of salaries, rewards and various forms of benefits (as well as the calculation of allowances) given to all employees. In addition, this financial information system also presents information about several pieces (if any) that are charged to employees. The financial information system was developed to increase transparency in providing employee with their salaries. It was built to open up the payroll system and further improve employee satisfaction. This was because such openness encourages employees to improve their performance and thereby increase the salaries they earn. Based on a range of literature, we conclude that there were many symptoms or impacts caused by the new system. This means that evaluation after the development of the system was very necessary. System evaluation can be carried out in terms of the satisfaction or love of the user, work effectiveness, and evaluation of the success of the system, namely the benefits provided to all stakeholders. There are several theories that have been used by subsequent researchers in exploring the success of the system, namely the TAM theory (Davis, 1989). According to the Theory of Reasoned Action (TRA) and Theory Acceptance Model (TAM), the beliefs and affection felt towards an innovation are the basic principles of an individual's "acceptance" of innovation (Davis et al., 1989; Rahi et al., 2018).

Meanwhile, DeLone and McLean have developed a system acceptance model called the D&M IS Success Model (Urbach & Müller, 2012). In their theory, DeLone and McLean (2003) mentioned six factors that affect the acceptance of information systems, namely the quality of the system, the quality of information, usage, user satisfaction, individual impact and organizational impact. Furthermore, Seddon and Klew (1996), used perceptions of organizational performance, system usage, actual use, usefulness, perceived level of success, net benefits, and perceived benefits of information technology as components in measuring the success of information systems.

Considering the various evaluations of the system, the researchers are more inclined to user satisfaction in using the system and user performance as our main evaluations and identify the factors that influence them. This is in line with the opinion of Davis et al. (1989) that information systems will not have an impact on improving performance if system users are not able to use it, if, in fact, users are not interested in using the system. This view reinforces the two main keys to the successful development of this system, namely the intention and satisfaction of users (Fisher, 2001). Intention and user satisfaction are an intermediary towards the goal of creating an information system, namely improving the performance of individual users and institutions (Mohamed Ali & Younes, 2013). Evaluation of performance is needed because efficiency and effectiveness are the main keys to system development (DeLone & McLean, 2016).

The advantage of this research is that its object originates from one institution and the evaluation of the same system. Ultimately, user satisfaction is satisfaction with the same information system. This is a criticism of previous research that has used users from a variety of different organizations that tend to evaluate the system in a biased way (because the object, i.e. the systems being evaluated, varied). In addition, the object being in the form of a public organization—a state tertiary education institution—is an advantage of this paper. Many researchers argue that the success of a system is also determined by work culture (see Omotayo & Chigbundu, 2017; Torkestani et al., 2014). By using, as its object, only one university, has the advantage that the research object has a different culture from other public organizations or private organizations. The typical culture that develops at universities is the culture of learners. This learning culture has an impact on the success of the system (Torkestani et al., 2014). In addition, research related to information systems in public organizations, in the form of universities, is still limited (Watchaton & Krairit, 2018).

The presentation of this paper is preceded by an identification of the theories used by previous researchers, the factors that have an impact on the attitude of the use of the system by using the theory, and a formulation of measurement models for all factors, before ending with hypothesis testing and a comparison between TPB and TAM theories.

2. Literature review

In the initial stages of research aimed at evaluating the success of a system development, the main focus of evaluation is user satisfaction. For this stage, the theory that is widely used by researchers is the Theory Acceptance Model (TAM) developed by Davis in 1989 (Mohamed Ali & Younes, 2013). The TAM model used by Davis in his market used external variables that determine or influence attitudes towards the use of information technology. TAM identifies perceived ease of use and perceived benefits as the main independent variables (Dishaw & Strong, 1999). The perception of ease of use and perceived benefits lead to user intentions and will further influence behavior to use the system (Dishaw & Strong, 1999). This TAM assumes that user behavior using IT is voluntary (Dishaw & Strong, 1999). Theories that are almost the same as TAM are the Theory of Reasoned Action (TRA) and the Theory Planned Behavior (TPB). TRA explains the relationship between attitude and behavior in human actions. TPB to produce a comprehensive framework for determining behavior (Ajzen, 2015). In explaining behavior, TPB theory is based on three indicators, namely attitude towards certain behaviors, the users' subjective norms, and perceived behavioral control (Ajzen, 2015). Human actions are assumed to be based on the expected results if

someone carries out the action. Initially, TRA was used in social psychology (Davis et al., 1989) and subsequently extended to the identification of factors in the use of a system. The second theory was developed by DeLone and McLean called the D&M IS Success Model (Urbach & Müller, 2012). In theory, DeLone and McLean mention there are six that influence the acceptance of information systems, namely system quality, information quality, usefulness, user satisfaction, individual impact and organizational impact (DeLone & McLean, 2016; Mohamed Ali & Younes, 2013). In line with the increasingly complex system development, DeLone & McLean updated the model used by adding service quality as a factor affecting user satisfaction and intensity and changing net revenue as output (DeLone & McLean, 2016; Javidnia & Nasiri, 2012).

The third system evaluation model is Task Technology Fit (TTF). The TTF model developed by Goodhue and Thompson (1995) is also used to evaluate the success of the information system model, which also ends in organizational performance (Omotayo & Chigbundu, 2017). The TTF model uses four (4) key constructs in evaluating the success of the system, namely task characteristics, technology characteristics, performance, and utilization. Implementation of the above model by several researchers has been carried out using several approaches. The first approach was to use one of the models developed by previous research, and the second approach was to mix several models. Jang & Kim (2006) adopted TAM in evaluating the use of information systems by hotel employees in Korea. Omotayo & Chigbundu (2017) used a combined TAM and TTF model that was developed by (Dishaw & Strong, 1999; Samadi, 2018) in evaluating Information and Communication Technologies (ICTs) in schools in Nigeria. Meanwhile, Mohamed Ali & Younes (2013) combined TTF, TAM and Delone and McLean's model in evaluating information systems at companies in Tunisia. The use of different approaches in evaluating IS success is due to the increasingly complex problems faced in the success of the system (DeLone & McLean, 2016). In addition, the use of various systems success evaluation models is because each model has different goals. The TAM model focuses on attitudes towards the use of certain IT developed by users based on the perceived benefits and ease of use of IT, while TTF focuses on the compatibility between user's task needs and available IT functionality (Dishaw & Strong, 1999).

Considering various existing models, the researchers adopted a combination of TPB and TAM. The reason for this was that the success of a system cannot be separated from the will of the user, and the will of the user in using the system also cannot be separated from the results of interaction between the user and the system. In addition, the use of TPB and TAM is intended to make a more complex analysis of the success of the system both from the internal and external conditions of the user. The researchers' internal conditions were reflected in TPB and their external conditions were reflected in TAM. The researchers agree with Dishaw & Strong (1999) who stated that merging models has better results using the system individually.

In evaluating the success of the system, we control HR quality variables. This opinion is in line with the view of DeLone & McLean (2016) that the relationship between the six variables in the DeLone and McLean's model has failed to measure or control the others, and it has produced many conflicting reports about the success found in the literature of information system success. In addition, the success of an information system is highly dependent on the user's ability to operate it, and the user's ability to operate the information system depends on the quality profile of the user's resources. Differentiation of users (staff and managers) has been used by (Li, 1997) although the results show no difference between the success of the information system staff and the managers.

3. Research Method

3.1 Population and Sample

The object of this research is a financial information system developed by one of the public universities in Indonesia. The financial information system is a system developed to provide information on receipt of salaries, rewards, and various forms of benefits (as well as the calculation of allowances) given to all employees. In addition, financial information system also presents information about several deductions (if there are any) that are charged to employees. financial information system was developed to increase transparency in providing employee salaries. After waiting two months after the researchers distributed the questionnaire, a sample of 246 users was obtained. We used the convenient sampling method.

3.2. Hypotheses

The first theory that the researchers used in explaining the success of systems was the Theory Planned Behavioral (TPB). According to this TPB theory, a person's behavior to use the system is based on three things, namely attitude, subjective norm and behavioral control. The attitude factor explains that a person's attitude is the effect of someone's assessment of an object or performance of certain behaviors. Interaction of a person towards an object and conduct behavior will result in a good or bad view of the object or behavior being observed. Attitude toward behavior is "... someone's judgment that engaging in the behavior is good or bad; that he will support or oppose the behavior" (Smedley & Bayton, 1983). The definition of attitude develops at the level of likes and dislikes in terms of individual feelings towards psychological objects (Ajzen and Fishbein, 2000). Thus, there are two components of attitude: that is, attitudes toward physical objects (internet, computers) and attitudes towards behavior or take certain actions (using the internet to obtain information) (Gopi & Ramayah, 2007).

Initially, this TPB was used to explain aspects of behavior (Hasbullah, Mahajar, & Salleh, 2014), but the development reached an explanation of the psychological aspects of someone to do something and use information systems (Ajzen, 2015). Some studies, such as Gopi & Ramayah (2007), used TPB to explain the use of online buying and selling and showed that attitudes had a positive relationship with behavioral intention and actual use. Choudhury et al. (2006), Farah (2017) and Ajzen (2015)

have also demonstrated that attitude influences purchase intensity positively. By deductive analogy, attitudes toward the financial information system and people's behavior after using financial information system would form a person's (good or bad) view of financial information system and produce the intention to use financial information system. Thus, we can develop the following hypothesis:

H_1: There is a positive relationship between attitude and intention to use financial information system.

The second factor in explaining intensity is subjective norm. A person's behavior is driven by injunctive normative beliefs. These injunctive normative beliefs are shaped by a person's interaction with his environment such as the conclusion of his own actions or social references (Ajzen, 2015), or stemming from his social environmental impulses. These injunctive normative beliefs will cause conclusions to be drawn about whether or not certain actions carried.

Ajzen (2015), Farah (2017) and Gopi & Ramayah (2007) have demonstrated that subjective norms have a positive effect on intensity. Information related to information systems that a person obtains, or even from his own experience, will form injunctive normative beliefs and subsequently be a basis for the intention to use financial information system. Thus, we can formulate the following hypothesis:

H_2: There is a positive relationship between subjective norms and intention to use financial information system.

Behavioral intensity is influenced by individual control as measured by Perceived Behavioral Control. This control is needed if it is in a situation where the individual may not have complete control over the behavior (Gopi & Ramayah, 2007). Ajzen (2015) considered that PBC was assumed to follow consistently from easily accessible beliefs, in this case beliefs about resources, and obstacles that can facilitate or interfere with the performance of a given behavior. These behavioral barriers can be in the form of skills or resources in the form of time, money and others (Gopi & Ramayah, 2007; Ajzen, 2015). Thus, the following hypothesis can be developed:

H_3: Perceived Behavioral Control has a positive relationship with behavior (actual use) in terms of financial information system.

In addition to influencing user intensity, individual control is also able to influence someone's to behavior. A person's behavior requires resources. This means that when there are no resources (even if there is a desire), then the behavior cannot be implemented. Thus, resources are the control of behavior (Gopi & Ramayah, 2007; Ajzen, 2015). Perceived Behavioral Control is one's perception of completing work (Farah, 2017), in this case using financial information system. If there is a perception that they are not able to solve it or use it, then the behavior will not be carried out.

H_4: Perceived Behavioral Control has a positive relationship with intensity of use of financial information system.

Apart from the individual factors of the perpetrators, the researchers assessed that the use of information systems can also be influenced by the characteristics of the system itself. According to TAM theory, the first factor affecting system acceptance is perceived usefulness. Perceived usefulness is a phase where someone believes that the user of a particular system will be able to increase the work performance of that person and will further increase the intensity of someone using the system. Perceived usefulness is the basic level used to determine the evaluative response of users to a system used (Hashim & Tan, 2018). In addition, perceived usefulness is one's perception or one's belief about the use of a system that can improve their performance (Hamid, Razak, Bakar, & Abdullah, 2016). Hamid et al. (2016) provided evidence that perceived usefulness of the system (e-governance) had a positive influence on user intensity.

H_5: Perceived usefulness has a positive effect on the intensity of use of financial information system.

Perceived usefulness is also a major component in determining behavior in terms of system use (actual use). Usefulness is known as "the basic level used to determine the evaluative response of users to a system used (Hashim & Tan, 2018). Thus, usefulness consists of the user experience in using the system. Perception of usability plays an important role in predicting user behavior after the user adopts the system (Hashim & Tan, 2018).

H_6: Perceived usefulness has a positive effect on the behavior (Actual Use System) for using financial information system.

The second indicator in TAM theory is Perceived Ease of Use (PEU). PAU is a person's perception of the ease with which a system is used. The ease of using the system will certainly increase the number of users because users do not spend resources on using it. The perceived aging is the user's belief that the system is able to carry out the necessary functions (He, Chen, & Kitkuakul, 2018). Previous research has provided evidence that PEU has a positive impact on user intensity (Hamid et al., 2016; He et al., 2018).

H7: Perceived Ease of Use has a positive effect on intensity to use financial information system.

In addition to having an impact on the intensity of using the system, the user's perception of the ease of using the system also has a positive impact on the perception of the usefulness of the system. The perception of the use of the system is the user's trust in the system where the user believes that the use of the system will be able to facilitate the user in carrying out their duties, and being able to carry out certain functions so as to have an impact on improving user performance. One feature in

assessing system usability is the ease with which a system is used. Ease of use has a positive effect on usefulness (He et al., 2018).

H_8: Perceived ease of use has a positive effect on perceived usefulness.

Intention is the interest, purpose, and desire to do something. This intention will have an impact on one's behavior. In this case, one's intention to use financial information system will have a positive impact on behavior in terms of using financial information system. This is because the main factor of behavior is (Alshare, Alomari, Lane, & Freeze, 2019; Ajzen, 2015). Ajzen (2015) and Alshare et al., (2019) have provided evidence of the relationship between intention to use and actual use.

H_9: Intention to use has a positive influence on behavior towards financial information system (Actual Use System).

3.3. Method of Data Collection and Analysis

In explaining this phenomenon, the researchers used several variables that were measured on a Likert scale with 5 levels. Measurement of variables is conducted with the following indicators. (1) Perceived Usefulness: the researchers measured this variable with the system speed indicator for carrying out tasks, and the impact on increased performance, increased productivity, and increased efficiency (Buabeng-Andoh, 2018). (2) Users' perceived ease of use is measured by indicators of system compatibility with user desires, effort needed to use the system, improvement of user skills, user control, and skillfulness when using the system. (3) Attitude is measured by the user's necessity to use the system in their job, user preferences, and positive feelings towards the system (Lada, Harvey Tanakinjal, & Amin, 2009). (4) Subjective Norms are measured by the influence of others, support from important people, and people who have a strong influence on the user. (5) Behavioral intention is measured by the desires, expectations, and plans for future use of the system (Farah, 2017).

The Structural Equation Model were used for the data analysis. To guarantee that the resulting model is fit (so it is appropriate to use in order to hypothesize); the researchers assessed the feasibility of the model which included Average Path Coefficient (APC), Average R-squared (ARS), Average Adjusted R-squares (AARS), and Average Block VIF (AVIF (Solimun & Fernandes, 2017).

4. Results and Discussion

4.1. Descriptive Analysis

The object of this study was all the staff and lecturers at Universitas Negeri Semarang. University policy, all lecturers and staff are incorporated into the financial information system. This system was created to provide institutional openness in providing salaries, benefits and other awards. Openness of the payroll system is needed in order to encourage staff and lecturers to improve their performance. Moreover, one of the types of bonuses given by institutions depends on the performance of individual employees. After distributing the questionnaire for two months, the researchers obtained a sample with the following description:

Table 1
Backgrounds of Respondents

	Respondents' Characteristics	Frequency	Percentage
Gender	• Male	108	43,55%
	• Female	140	56,45%
Age	• 20-35	88	35.48%
	• 36-45	90	36.29%
	• 46-55	56	22.58%
	• 55-65	14	5.65%
Education	• High school	5	4.03%
	• Undergraduate Degree	54	43.55%
	• Master's Degree	59	47.58%
	• Doctor	6	4.84%
Occupation	• Lecturer	68	27.42%
	• Staff	180	72.58%
Category (Salary)	• II	30	12.10%
	• III	176	70.97%
	• IV	42	16.93%

Table 1 above shows that a large percentage of the respondents were aged 36-45, followed by those aged 20-35 years. The respondents were predominantly women. In terms of background level, they had a master's degree education. These respondent demographics illustrate that the sample of this study has a very good background (age, education and occupation) for understanding the questions in the questionnaire, so the results are very valid.

Descriptive analysis of the indicators used is as follows:

Table 2
Descriptive Variable Results

Indicator	Min	Max	Mean	St. Dev
Attitude Toward the Behavior	1	5	4.155914	0.73365
Subjective Norm	1	5	3.942204	0.833771
Perceived Behavioral Control	1	5	4.328629	0.70092
Perceived Usefulness	2	5	4.367944	0.621431
Perceived Ease of Use	1	5	4.184677	0.684611
Intention to Use	1	5	4.229839	0.710024
Behavior (Actual Use System)	3	5	4.392473	0.577037

4.2. Result of hypotheses testing

Before testing the hypothesis, the researchers conducted a model feasibility test. This test was needed so that the results of data processing were used to answer the hypothesis. Following are the results of the model validity test:

Table 3
Model fit and quality indices

Indicator	Conclusion
Average path coefficient (APC)=0.314, P<0.001	Significant
Average R-squared (ARS)=0.535, P<0.001	Significant
Average adjusted R-squared (AARS)=0.530, P<0.001	Significant
Average block VIF (AVIF)=2.306	Acceptable

Table 3 shows that the APC, ARS and AARS values were significant and AVIF <0.05. These results indicate that the model is good and meets the criteria to be used to answer the hypothesis.

After the model was declared to meet the criteria, the next step was to show the results of the hypothesis test which the researchers have summarized in the following table:

Table 4
Results of Hypothesis Testing

Variables	Alpha	Conclusion
Attitude Toward the Behavior → Intention to Use	0.27 ***	Accepted
Subjective Norm → Intention to Use	0.14**	Accepted
Perceived Behavioral Control → Intention to Use	0.33***	Accepted
Perceived Usefulness → Intention to Use	0.13**	Accepted
Perceived Ease of Use → Intention to Use	0.12**	Accepted
Perceived Ease of Use → Perceived Usefulness	0.651***	Accepted
Intention to Use → Behavior (Actual Use System)	0.37***	Accepted
Perceived Ease of Use → Behavior (Actual Use System)	0.5***	Accepted
Perceived Behavioral Control → Behavior (Actual Use System)	0.35***	Accepted

*** Sig at 1%; ** sig. at 10%, * sig. at 10%.

This study uses two theories, namely TPB theory and TAM theory. The combination of these theories is intended to have a stronger impact in explaining the system's acceptance by the user. Here are the test results that differentiate between the use of TPB theory, and TAM individually, and compare if they combine the two.

Table. 5
TPB and TAM Theory Test Results

Variables	TPB Theory		TAM Theory		Integrated	
	Alpha	R^2	Alpha	R^2	Alpha	R^2
Attitude Toward the Behavior → Intention to Use	0.30***	0.43	-	-	0.27 ***	0.56
Subjective Norm → Intention to Use	0.11**		-	-	0.14**	
Perceived Behavioral Control → Intention to Use	0.32***		-	-	0.33***	
Perceived Usefulness → Intention to Use	-	-	0.20***	0.30	0.13**	
Perceived Ease of Use → Intention to Use	-	-	0.39***		0.12**	
Perceived Ease of Use → Perceived Usefulness	-	-	0.65***	0.42	0.65***	0.42
Intention to Use → Behavior (Actual Use System)	0.37***	0.62	0.70***	0.60	0.35***	0.65
Perceived Behavioral Control → Behavior (Actual Use System)	0.50***		-		0.35***	
Perceived Usefulness → Behavior (Actual Use System)	-	-	0.39***		0.22***	

The second and third columns use TPB and produce R square 43% in explaining the intensity of using the system and, when integrated with TAM the theory, it produces R square 56%. When viewed in terms of the coefficient value, most variables have a greater coefficient when combining the two theories. The same condition also occurs between the two theories in explaining the actual use of the system resulting in a larger R square, which is 65% when combining the two theories. However, if observed, the coefficient value will decrease if it combines TPB and TAM in explaining the actual use of the system.

4.3.   Discussion

Table 4 provides evidence that all hypotheses that have been developed have a positive influence on the success of the system. The main indicator that the researchers used in explaining the success of a system was TPB by using three variables, namely attitude, subjective norms, and behavioral control. The first variable in TPB, namely attitude, has been demonstrated to have a very strong influence on the intensity of users in using the system. Attitude concerns beliefs about user behavior or, as it is referred to, the environment, especially the user's belief in using the system. This belief is based on the individual's subjectivity in assessing the system by connecting the behavior of using the system with the benefits or disadvantages if they use the system. Positive belief in behavior will have a positive impact on the intensity of users using the system. The results of this study reinforce previous researchers who have used TPB in explaining the reasons for using the system (and similar ones) such as Gopi and Ramayah (2007) and Ajzen (2015).

The second factor in TPB that we predicted had a rather strong and positive influence on user intentions is subjective norm. The results indicate that subjective norms have a strong positive influence on intention. Subjective norms are an individual's perception of certain behaviors that are formed through the influence of others. As with attitudes, subjective norms also come from subjective beliefs. The difference is the source of information obtained in forming trust. Trust in attitudes comes from the interaction of individuals, whereas trust in subjective norms comes from the influence or views of others. Perception of the usefulness of online communities plays an important role in promoting the behavior of sharing knowledge in an online community environment (Hashim & Tan, 2018). In the case in this study, other people's views on financial information system also contributed to shaping the beliefs of other individuals in financial information system and subsequently affected the intensity of users in using financial information system. Other people's views on good or bad behavior using financial information system could be used as a source of information in shaping user trust in using financial information system. The results of this study reinforce Ajzen (2015), Farah (2017) and Gopi and Ramayah (2007) which first provided evidence that subjective norms have a positive effect on intensity.

The third factor is behavioral control. Behavioral control is an individual's belief that someone can do a job by paying attention to the resources needed to engage in a behavior. Resources form behavioral control because resources can be a supporting or inhibiting factor in realizing behavior. These resources can be in the form of skills, time, money and others (Gopi & Ramayah, 2007; Ajzen, 2015). The results support the TPB theory that behavioral control has a very strong influence and is able to increase the intensity of behavior. Behavior in this study is behavior using the financial information system. The results confirm the findings (Ajzen, 2015).

In addition to increasing intensity, the researchers' evidence showed that behavioral control also had a very strong positive impact on behavior (actual use) in using the system. Someone, in carrying out the behavior, will pay attention to resources needed to achieve success. In this case, to be able to use the system, resources are needed such as the internet, computers and time to access them. The availability of these resources will encourage someone to use the financial information system.

The second theory that we use to explain the intensity of system use is the TAM theory. This theory uses two variables, namely perceived ease of use and usefulness in influencing the intensity and use of the system. Based on the test results, we found evidence that perceived ease of use has a significant positive effect on intensity. This finding corroborates previous findings that the perception of ease of use of the system has a positive influence on the intensity of users using the financial information system. Perception of user convenience can be obtained from the results of user interaction with the system or through the experience or perception of others jet are used by users in assessing the ease of use of the system.

Perceived usefulness is the perception of the ease of using the system. An easy system is a system whose use does not require a lot of resources and the user trusts that the system can run according to its function. Thus, research by He et al. (2018) and Ha and Nguyen (2019) provided evidence that the perception of ease of the system can increase perceived usefulness. User confidence in the ease of the system certainly strengthened the user's perception that the system had benefits for individual performance and subsequently had a positive impact on organizational performance (Hamid et al., 2016).

When users have the belief that using a system will improve performance (both individuals and organizations) they formed the perception that using the system was the right behavior. Furthermore, of course it increased user intensity, Hamid et al. (2016) have shown evidence that this perception increases the intention of users using the system. Perceived ease of use will encourage user involvement; behavioral intentions and user satisfaction (Zaied, 2012). The results of this study have reinforced the findings (Hamid et al., 2016) that perceived usefulness will significantly influence the intensity.

High perceived usefulness indicates that the system has a good function in helping the user with tasks. When the users believe that the system can carry out their duties and assist them in improving their performance, they will take the attitude, in the

form of a policy, to use the system. Thus, perceived usefulness has a very significant positive effect on behavior (actual use of system).

The last factor in TPB is that the intensity has an impact on actual use. Intensity is the intention, purpose, desire to do something, while actual use is the conscious behavior of using the system. In psychological theory, this intention will trigger one's behavior. This study also provided evidence that user intensity had a positive and significant influence on actual use. The same results were obtained by Alshare, Alomari, Lane, & Freeze (2019); and Ajzen (2015).

Our results also showed that the influence of attitudes, subjective norms and behavioral control on the intensity of system use was stronger if the intensity factor was combined with the ease and usefulness of the system. In addition, the system use factor was influenced by the intensity and ease of the system and the effect was stronger if added to the factor control behavior. This result corroborated the previous findings, namely Dishaw & Strong (1999) that the merging of models (TAM and TPB) had a greater impact on both the intensity and the actual behavior of users in using the system.

5. Conclusion

This study used the TPB theory in testing the intentions and behavior of users in using the system. The researchers' test results have shown that intensity was positively influenced by attitudes, behavior, and subjective norms. The attitude of the use of the system was positively influenced by the intensity and behavior. By using the TAM theory, the researchers also provided evidence that perceptions of ease and perceptions of use of the system by the user had a positive influence on the intensity of the use of the system and perceptions of the use of the system also had a positive influence on the behavior of system use. In addition, the user's perception of the usefulness of the system was influenced by the user's perception of the ease of the system. The results also showed that the merging of the TAM and the TPB model will have a greater impact, both on the intensity and the actual behavior of users in using the system. This study provides evidence that the assessment of user acceptance in using a system is influenced by many factors, so a combination of theories to determine a greater factor in assessing system acceptance is necessary and the researchers have demonstrated it. For this reason, the advice the researchers can give to future researchers is to conduct a broader analysis with greater use of theories in assessing system usage.

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