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TAM: ACCEPTANCE OF E-LEARNING TECHNOLOGY TO STUDENTS IN MASTERS OF MANAGEMENT LEARNING

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ABSTRACT

Background: The implementation of learning with the e-learning method requires that it be studied more deeply by looking at how the response and acceptance of students to the e-learning-based learning process, so that it can be seen the results of the form or method of e-learning-based learning desired by students.
Aim: This study aims to evaluate the relationship between technology acceptance factors and online learning for Master of Management students at University Muhammadiyah Yogyakarta in terms of perceived usefulness, perceived convenience, subjective norms, attitudes towards use, and behavioral intentions.
Method: The object used in this research sample is a master of a management student. The sample of this study consisted of 140 respondents who were selected by the sampling method. The data analysis technique used in this study was using Structural Equation Modeling (SEM) with the help of AMOS 23 software. Analysis of the quality testing of the data instrument in this study used validity tests, reliability tests.
Findings: The results showed that perceived usefulness had a significant effect on usage attitudes, usage attitudes had a significant effect on behavioral intentions, perceived usefulness had a significant effect on perceived convenience, perceived ease of use had a significant effect on usage attitudes, perceived usefulness had a significant influence on subjective norms, norms subjective does not have a significant effect on attitudes to use, subjective norms have no significant effect on behavioral intentions.

KEYWORDS

perceived usefulness; perceived ease of use; subjective norms; attitude toward use; behavioral intention

INTRODUCTION

Technology can be something that is useful or something that is destructive if it is not used wisely, therefore education about technology must be developed or promoted early. Advances in the internet and wireless technology have provided the basis for the development of electronic learning (e-learning) (Müller & Wulf, 2020). Despite this, the tremendous development of internet networks and technology, acceptance and use of e-learning in higher education is at an early stage. according to Teo and Van Schaik (2012), understanding users' intentions to use technology has become one of the most challenging problems for information systems researchers today.

In the absence of regulations or outlines for the use of information technology in learning, many teachers or students feel confused by the information technology-based learning system, the unpreparedness of the infrastructure and the unpreparedness of the teachers in providing material causes education to become chaotic and ineffective. So it is undeniable that the material delivered by online teaching becomes ineffective and cannot be accepted by students (Maudiarti, 2018). The use of the internet today has become an inseparable part of the lifestyle

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of all levels of Indonesian society. According to survey data conducted by the Association of Indonesian Internet Network Providers or (APJII) survey data in 2016 shows that students are the largest internet users in Indonesia with a percentage of 89.7%, for the second place is students with a percentage of 69.8%.

However, access to online or online education pages is still very lacking. This is a problem that needs to be addressed by educators or teachers by directing students or students to be able to use the internet in the realm of online education. Universitas Muhammadiyah Yogyakarta has long had e-learning which was developed using UMY MyKlass and has been used as a form of learning recognized by university leaders, students in the university environment have used the e-learning method, either in the form of uploading documents (RPS, lecture material) or in online learning activities such as discussions, online lectures, and online assignment collection.

The implementation of learning with the e-learning method requires that it be studied more deeply by looking at how the response and acceptance of students to the e-learning-based learning process, so that it can be seen the results of the form or method of e-learning-based learning desired by students. This study aims to determine student perceptions of acceptance of e-learning-based education.

Hypothesis

Relationship Between Perceived Usefulness and Attitudes Towards Use

Perceived usefulness according to Davis is a person's belief that using a certain technology will improve his performance, this understanding is used in research to predict and explain user intentions to use technology (Teo & Van Schaik, 2012). In other studies, there is a significant correlation in the use of the system which indicates that perceived usefulness has a direct effect on attitudes towards use (Al-Rahmi et al., 2019), the results of other studies in Malaysia, teaching with a cloud system, teachers can improve OD so that they can increase motivation to use e-learning technology (Yim, et al., 2019).

H_1: There is a significant effect between perceived usefulness and attitudes towards use

Relationship of Attitude towards Use with Behavioral Intention

Attitude toward use is an attitude toward behavior that is defined as belonging to an individual, if the user has a positive attitude then he will show a strong intention to use it. The results of research conducted by Kuo Huang regarding living assistant technology show that attitudes towards use have an effect on behavioral intentions, it is in line that respondents have a positive desire to use life support tools (Kuo et al., 2020). In a study conducted by (Chaouali & El Hedhli, 2019), it was explained that the behavior of using mobile banking had an effect on customers' habits in life.

H_2: There is a significant effect between attitudes towards users and behavioral intentions

Relationship Between Perceived Usefulness and Perceived Ease of Use

Davis (1989) defines perceived ease of use as an individual's perception of the simple and easy operation of a particular technology system. It is an assessment of the effort involved in

the use of technology, the results of research conducted by Park et al. (2018) show that perceived usefulness has a positive impact on the perceived ease of use of TPACK in South Korea. The results of research conducted by Aref and Okasha (2020) Egypt state that perceived usefulness has a positive impact on perceived ease of use when using online shopping, and these results are in accordance with the hypothesis that I am developing in this study. Davis (1989) defines perceived ease of use as an individual's perception of the simple and easy Davis operation of a particular technology system. It is an assessment of the effort involved in the use of technology, the results of research conducted by Young Ju, Park, et al. (2018) show that perceived usefulness has a positive impact on the perceived ease of use of TPACK in South Korea. The results of research conducted by Aref and Okasha (2020) Egypt state that perceived usefulness has a positive impact on perceived ease of use when using online shopping, and these results are in accordance with the hypothesis in this study.

H_3: There is a significant effect between perceived usefulness and perceived ease of use

Relationship Between Perception Ease of Use and Attitude Towards Use

Several studies related to the hypothesis that I am developing include research conducted by Jiménez-Barreto and Campo-Martínez (2018) this research is about online co-creation research and the results of this study indicate that the perception of convenience has a positive impact on attitudes towards use that respondents voluntarily participate in online co-creation. and other research is about the perception of ease of showing a positive impact with attitudes towards the use of language, people in Jordan have started using e-banking because they are used to it (Anouze and Alamro, 2019). Other research is about the acceptance of technology for the results of this study indicate that the perception of convenience affects the attitude towards the use of people who will buy technological equipment (Liu and Chou 2020), and these results are in accordance with the hypothesis that I am developing in this study.

H_4: There is a significant effect between perceived ease of use and attitudes towards use

Relationship between Perceived Usefulness and Subjective Norms

Subjective norm refers to the degree of influence of important people around the individual during e-learning, research conducted by Muñoz-Leiva et al. (2018) on the adaptation of the home-sharing platform by involving people from different cultures and the results of this study are perceived usefulness has a positive effect on subjective norms in the use of HSP for all groups and has a perceived impact. And other research is regarding the acceptance of peer to peer payments in Spain and the results of the research carried out are perceived usefulness showing a positive influence on subjective norms in the acceptance of peer to peer payment systems (Kalinić, Liébana-Cabanillas, et al., 2019), and these results are in accordance with the hypothesis in this study.

H_5: There is a significant effect between perceived usefulness on subjective norms

Relationship of Subjective Norms and Attitudes Towards the Use

A person's attitude toward use is determined by his or her salient beliefs about the consequences of performing the behavior multiplied by the evaluation of those consequences (Davis, 1989). research conducted by (Yim et al., 2019) in research Predicting teachers' continuance in a virtual learning environment with psychological ownership and the results of this study with a cloud system, teachers can improve OD and are able to increase motivation to use e-learning, so that subjective norms have a positive effect on attitudes towards use. In another study regarding the acceptance of technology in m-learning that was carried out by Buabeng-Andoh (2018) the study showed a significant influence between subjective norms and attitudes towards the use of m-learning, and these results are in accordance with the hypothesis that I am developing in this study.

H_6: There is a significant effect between subjective norms and attitudes towards use

Relationship of Subjective Norms with Behavioral Intentions

Subjective norms are defined as the individual's perception that most people who are important to him think that he should or should not perform the intended behavior (Ajzen, 2011). Several studies have been conducted to see the relationship between the two constructs, among others, such as that conducted by Marakarkandy et al. (2017) about enabling internet banking adoption an empirical examination with an augmented, the results of this study indicate that subjective norms have a positive effect on behavioral intentions in the intensity of internet banking use. Other studies about the usage intention of e-learning for police education and training from Rui-Hsin & Lin (2018) the results of the study show that there is a significant influence between subjective norms and behavioral norms in police education and training using e-learning, and these results are in accordance with the hypothesis that I am developing in this study.

H_7: There is a significant influence between subjective norms on behavioral intentions

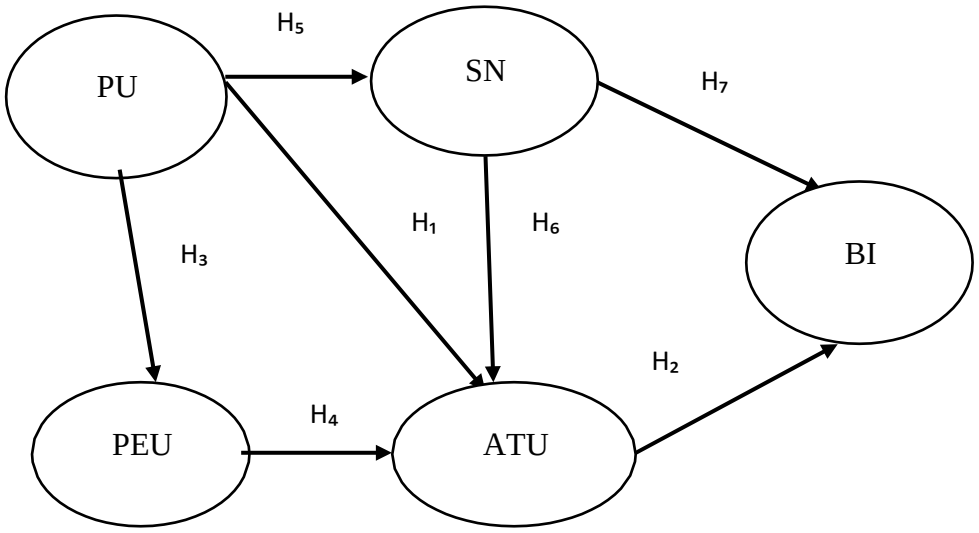


Figure 1. Research Model

METHOD

This research was conducted at the postgraduate program at Muhammadiyah University of Yogyakarta, the subject in this study was the student postgraduate program at the Muhammadiyah University of Yogyakarta. With the number of people as many as 345 people. The sampling technique used by the author is purposive sampling. In the research, the researchers got as many as 140 respondents. This study aims to collect empirical evidence, this research is also called causality research, which aims to analyze the relationship and influence (Cause and effect) of two or more phenomena. The tools that match the indicators are designed using a Likert scale. The data collected was processed numerically and quantitatively analyzed by hypothesis testing with the analytical model used, namely Structural Equation Modeling (SEM) using Amos.

The distribution of questionnaires in this study was carried out from March to July 2021. Before collecting data, the researchers asked the respondents whether the respondents knew and used the e-learning, then the researcher distributed questionnaires to respondents who were following predetermined criteria. Data were collected with a period of 5 Months for taking the questionnaire. There were 140 questionnaires were received.

RESULTS AND DISCUSSION

Based on the results of research that has been carried out on 140 respondents through the distribution of questionnaires, it is obtained information about the characteristics of the respondents studied. These characteristics include gender, age, media, and how long to use e-learning.

Validity and Reliability Test

Tabel 1. Validity And Reliability Test

		CR=(Σλ)2 ((Σλ)2+ΣError); CR ≥ 0,7	VE=(Σλ2) ((Σλ2)+ΣError); VE ≥ 0,5	CONCLUSION
PU	PU1			Good Validity
	PU2			Good Validity
	PU3			Good Validity
	PU4			Good Validity
	Σ	**0.8901**	**0.6696**	Good Reliability
	PEU1			Good Validity
	PEU2			Good Validity
	PEU3			Good Validity
	PEU4			Good Validity
	PEU5			Good Validity

PEU				Good Reliability
	Σ	**0.9204**	**0.6990**	
NS	NS1			Good Validity
	NS2			Good Validity
	NS3			Good Validity
	Σ	**0.8401**	**0.6423**	Good Reliability
ATU	ATU1			Good Validity
	ATU2			Good Validity
	ATU3			Good Validity
	Σ	**0.8772**	**0.7044**	Good Reliability
BI	BI1			Good Validity
	BI2			Good Validity
	BI3			Good Validity

In the results of testing the validity and reliability, it was found that of the 15 statements that were tested the validity of the whole was declared valid. Because the instrument meets the acceptable standard, namely, the factor loading value 0.50 (Ghozali, 2017). In the reliability test results, it was found that of the five variables tested for reliability, all of them were declared reliable. Because it meets the acceptable standard, namely with the provisions of 0.70 at the cut-off value of Construct Reliability (CR) to find out whether the data is reliable or not (Ghozali, 2017).

The Influence between Perceived Usefulness and Attitudes towards Use

The first hypothesis, which states that there is a significant effect of perceived usefulness on usage attitudes, is accepted with a statistical t value of 5.976 < 1.96 at a significant level p-value of 0.000 > 0.05. the magnitude of the regression effect is 0.609 (60.9%).

The Influence between Attitude towards Use and Behavioral Intention

The second hypothesis, which states that there is a significant effect of usage attitudes on behavioral intentions, is acceptable with a statistical t value of 8.636 > 1.96 at a significant level p-value of 0.000 < 0.05. with the magnitude of the regression effect is 0.885 (88.5%).

The Influence between perceived usefulness and perceived ease of use

The third hypothesis, which states that there is a significant effect of perceived usefulness on perceived ease of use, is accepted with a statistical t value of 4.580 > 1.96 at a significant level p-value of 0.000 < 0.05. with the magnitude of the regression effect is 0.512 (51.2%).

The Influence between Perception ease of use and Attitude towards use

The fourth hypothesis states that there is a significant effect of perceived ease of use on attitudes of use. acceptable with a statistical t value of 2.751 < 1.96 at a significant level p-value of 0.006 > 0.05. with the magnitude of the regression effect is 0.165 (16.5%).

The Influence between Perceived Usefulness and Subjective Norms

The fifth hypothesis, which states that there is a significant effect of perceived usefulness on subjective norms, is accepted with a statistical t value of 5.364 > 1.96 at a significant level p-value of 0.000 < 0.05. with the magnitude of the regression effect is 0.558 (55.8%).

The Influence of Subjective Norms and Attitudes towards use

The sixth hypothesis, which states that there is a significant influence of subjective norms on attitudes to use is unacceptable with a t-statistical value of 1.168 < 1.96 at a significant level p-value of 0.243 > 0.05. with the magnitude of the regression effect is 0.095 (9.5%).

The Influence of Subjective Norms with Behavioral Intentions

The seventh hypothesis, states that there is a significant effect of subjective norms on behavioral intentions. Unacceptable with a statistical t value of 1.428 < 1.96 at a significant level p-value of 0.153 > 0.05. with the magnitude of the regression effect is 0.092 (9.2%).

Based on the results of the hypothesis testing conducted by researchers, it can be seen that: (H1) which states that there is a significant effect of perceived use on attitude use, is accepted with a statistical t value of 5.976 < 1.96 at a significant level p-value of 0.000 > 0.05. the magnitude of the regression effect is 0.609. (H2) which states that there is a significant effect of usage attitudes on behavioral intentions, is acceptable with a statistical t value of 8.636 > 1.96 at a significant level p-value of 0.000 < 0.05. with the magnitude of the regression effect is 0.885. (H3) which states that there is a significant effect of perceived usefulness on perceived ease of use, is accepted with a statistical t value of 4.580 > 1.96 at a significant level p-value of 0.000 < 0.05. with the magnitude of the regression effect is 0.512. (H4) which states that there is a significant effect of perceived ease of use on attitudes of use. acceptable with a statistical t value of 2.751 < 1.96 at a significant level p-value of 0.006 > 0.05. with the magnitude of the regression effect is 0.165. (H5) which states that there is a significant effect of perceived usefulness on subjective norms, is accepted with a statistical t value of 5.364 > 1.96 at a significant level p-value of 0.000 < 0.05. with the magnitude of the regression effect is 0.558. (H6) which states that there is a significant influence of subjective norms on attitudes to use is unacceptable with a t-statistical value of 1.168 < 1.96 at a significant level p-value of 0.243 > 0.05. with the magnitude of the regression effect is 0.095. (H7) which states that there is a significant effect of subjective norms on behavioral intentions. Unacceptable with a statistical t value of 1.428 < 1.96 at a significant level p-value of 0.153 > 0.05. with the magnitude of the regression effect is 0.092.

CONCLUSION

Based on the results of the hypothesis testing and discussion conducted previously, the following conclusions can be drawn: There is a significant effect of perceived usefulness on attitude use so that it causes changes in usage attitudes towards students who use e-learning. There is a significant influence of attitude use on behavioral intentions so that students have the will to continue using e-learning. There is a significant effect of perceived usefulness on perceived ease of use. From this, we can see that students feel helped by e-learning. There is a significant effect of perceived ease of use on the attitude of use with the existing ease, it will

change students' perspective on e-learning. There is a significant effect of perceived usefulness on subjective norms, students can feel the usefulness of e-learning and can change their perspective on e-learning because of the influence of other variables. There is no significant influence of subjective norms on attitudes to use, from this the subjective norms of students will not change their attitudes towards the use of e-learning. There is no significant effect of subjective norms on behavioral intentions. These results indicate that students' views on subjective norms will not change their intentions towards e-learning.

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