IMPLEMENTATION OF LEARNING MANAGEMENT SYSTEM IN HIGHER EDUCATION ENTITIES: STUDY AT MYKLASS MUHAMMADIYAH UNIVERSITY YOGYAKARTA

BIKORIN, SITI DYAH HANDAYANI & NURYAKIN

Universitas Muhammadiyah Yogyakarta,
Indonesia

ABSTRACT

The world of education is an entity greatly affected by technological developments, and universities are competing to present effective and efficient learning by accommodating the latest technology. A learning management system (LMS) or often known as the concept of e-learning, is a platform that is widely used to create effective online learning. The Muhammadiyah University of Yogyakarta has long developed the Myklass learning management system. This research uses two essential aspects of technology acceptance within an organization, the technology acceptance model (TAM). The concept of understanding is what supports describing the determinants of technology acceptance and is an organizational factor. The purpose of this study is to understand the extent to which the perception and application of Myklass technology by lecturers and students at UMY. Quantitative design with a case study method is an approach in this research. The sample was collected using a purposive sampling technique, permanent lecturers and students of at least the second semester of Myklass users at UMY. There are differences in the perception of technology acceptance between lecturers and students. Although the object is the same, namely Myklass, because each subject has a different understanding, the study results show differences between the two.

Keywords: Technology acceptance model (TAM), organizational factors, learning management system, and dyadic method.

1.0 INTRODUCTION

Information technology is the dominant factor that will support the organization in implementing strategies to achieve the mission and vision. The world of education is very affected, especially at the university level. Universities compete to present effective and efficient learning by accommodating the latest technology. Universitas Muhammadiyah Yogyakarta (UMY) has long developed a learning management system (LMS); Myklass is an online platform connecting lecturers and students in every learning activity. This learning platform is Moodle-based, then developed in such a way by the University IT Team. In the odd semester of 2021/22, Myklass UMY was visited by 243,337 users, spread across ten faculties/programs, vocational, undergraduate, and postgraduate (Analytics, 2022). The Faculty of Business Economics, Medicine, and Health Sciences and the Faculty of Social and Political Sciences have the most Myklass visitors during that period (Analytics, 2022). Until now, Myklass has gone through many developments and technology updates, such as adding server capacity, developing mobile systems, adding big blue button sub-platforms, to

developing supporting software such as SIM Myklass. Although Myklass has undergone many improvements and refinements, some academic communities are still skeptical about this learning platform.

The technology acceptance model (TAM) is a theoretical concept that supports explaining the determinants of user technology acceptance (Davis, 1985). Based on behavioral intentions (BI), attitudes toward use (A), and internal beliefs, including perceived usefulness and perceived ease of use, TAM argues that acceptance of new information systems is predictable (Davis, 1985). Based on (Usman et al., 2020) the theoretical principle underlying TAM is described by Fishbein and Ajzen as a theory of reasoned action (TRA), which reveals the relationship between beliefs - attitudes - behavioral intentions. Apart from the theoretical factors above, other factors that influence the acceptance and use of technology are organizational factors. Organizational factors, in general, are very important in encouraging innovation adoption because it is important for organizations to prepare an enabling environment for technology adoption in the workplace (Talukder & Quazi, 2010).

Based on the phenomena and rationale described in the description above, as well as the development of previous research (Ayele & Birhanie, 2018). The researcher intends to know the extent of the perception and implementation of Myklass technology by lecturers and students at the University of Muhammadiyah Yogyakarta. This research has several updates from previous research. The first is Myklass, Myklass is a moodle-based LMS developed by the IT manager at the Muhammadiyah University of Yogyakarta; therefore, this system was developed in such a way as to follow the needs and desires of the university, both in terms of hardware and software. Furthermore, this study uses the dyadic method, namely data collection with paired respondents between lecturers and students, so that it will bring up the perception of similarities or differences related to the implementation of Myklass.

2.0 MATERIALS AND METHODS

2.1 Conceptual and Theoretical Background

The technology acceptance model (TAM) is a structure of ideas that accommodates the determinants of user technology acceptance (Davis, 1985). The theory of reasoned action (TRA) by Fishbein and Ajzen (1975) is the basic theory in developing TAM theory. The reference paradigm in the technology acceptance model is a development based on Fishbein's (1967) model; further, Fishbein and Ajzen (1975) analyzed and refined it extensively (Davis, 1985). In social psychology, a well-accepted framework regarding the determinants of intended behavior is TRA (Fishbein and Ajzen, 1975). TRA argues that a personal behavioral intention to perform a specific behavior is based on the person's actions to carry out the behavior and the impression of social pressure (Fishbein and Ajzen, 1975). This framework seeks to explain and read people's intentions towards certain behaviors over which people have complete control (Tucker et al., 2020). Davis (1985) proposed TAM, which offers a solid answer for user acceptance and behavior of using new technologies which the theory is derived from TRA (Chen et al., 2015). Davis (1989) explains that analyzing the determinants of computer recognition, involving user populations and behaviors across various end-user computing technologies, is the main goal of TAM.

The TAM model shows that the use of the system is indirectly suggested by the impression of usefulness and ease of application (Chen et al., 2015). A new information system can be projected based on behavioral intentions, attitudes toward use, and two other internal beliefs: perceived usefulness and perceived ease of use; this is the notion of TAM (Davis, 1985). Acceptable usability refers to the user's impression of how the technology will improve the situation (Davis, 1989). Perceived ease of use shows the user's impression of the quantity of power (i.e., time and resources) required to utilize the system or to deliver/innovate technology (Davis, 1989). According to TAM, attitudes to adopting new technology are also confirmed by users' impressions of the expected consequences of performing a behavior and evaluating those effects (Ajzen & Fishbein, 1980). Behavioral intentions explain the actual implementation of a given information system and therefore ensure a technological response (Davis, 1989). An actual system usage is a form of external psychomotor response that can measure by a person with actual use (Davis, 1989). In its development, TAM theory is commonly used in research related to the perception of technology acceptance; many researchers develop this theory and add other variables to support and strengthen their research.

Organizational factors are another critical factor that significantly influences the adoption of new technologies (Ayele & Birhanie, 2018). In general, organizational factors are significant in encouraging innovation adoption because institutions must prepare conditions that facilitate technology adoption in the workplace (Talukder & Quazi, 2010). According to Ayele & Birhanie (2018), organizational management support, training, and incentives be essential determinants of new technology adoption. The level and variety of assistance allocated to individuals that will affect the implementation of their innovations is a condition that needs to be facilitated and provided by the organization (Talukder & Quazi, 2010). Motivate employees to adopt innovation; organizational influence is needed (Talukder & Quazi, 2010). According to research from Talukder & Quazi (2010), respondents believe that management assistance is essential in approving a new technology or system because it will be challenging to analyze and utilize without active management support, meanwhile, low institutional support is considered to cause difficulties when innovation is considered. However, executive assistance is associated with more maximal innovation adoption and response (Lee et al., 2005). Talukder & Quazi (2010) also added that managerial support is vital because it allows employees to practice new technologies and increase their confidence and capacity.

According to research by Talukder & Quazi (2010), respondents feel the need for more specific and practical training within the organization, so they feel that training is essential, especially when new technology is introduced or an unfamiliar system. Without accurate upgrading, employees will not be able to optimally take advantage of the new system to achieve the goals that have been set (Talukder & Quazi, 2010). Training increases confidence in the individual's ability to practice and apply a change, and training increases personal capacity and competence in doing similar jobs (Lee et al., 2006). Therefore, training is very important because it equips employees with the knowledge and skills to use new technologies positively and practically (Talukder & Quazi, 2010). Incentives, such as promotions, financial subsidies, work obligations, and time restrictions, are important stimulant aspects for employees to adopt and practice new technologies (Ayele & Birhanie, 2018). The right incentives will be the most important in effectively involving new technology, but

management must be realistic and determine the right incentives for employees (Talukder & Quazi, 2010).

2.2 Empirical Review and Hypotheses

Perceived ease of use (PEOU) and behavioral intention (BI)

Various studies on TAM reveal that two main cognitive aspects in the model, perceived ease of use and perceived usefulness, significantly affect the affective aspect, namely behavioral intention. According to Alharbi & Drew (2014), there is a significant positive relationship between perceived benefits and behavioral intentions to use LMS. Their study also found a significant positive relationship between perceived ease of use and intention to use.

Perceived usefulness (PU) and behavioral intention (BI)

Research from Abid (2019) states that the test results positively support the relationship between perceived usefulness and behavioral intention to use the use of ELS, but the correlation is not strong. The correlation analysis results also show a significant positive relationship between perceived ease of use and behavioral intention to use. Marakarkandy et al. (2017) and Moon & Kim (2001) have the same conclusion: perceived usefulness positively influences behavioral intentions towards internet banking and www technology.

Behavioral intention (BI) and actual usage (AU)

According to Moon & Kim (2001) an individual's actual behavior is closely related to behavioral intentions. His research observed that behavioral intention to use www technology in the future has a strong, significant relationship with the actual use of www (Moon & Kim, 2001). Behavioral intentions positively affect the actual use of the e-learning system; this confirms that behavioral intention is one of the determinants of the use of e-learning (Ayele & Birhanie, 2018).

Top management support (TMS) and actual usage (AU)

According to Talukder & Quazi (2010), most respondents believe managerial support is needed when legalizing a new technology or system because it is challenging to pursue and take advantage of new things without serious management assistance. This support includes financial, technical, and time support to learn and understand new technologies. Takulder & Quazi (2010) mention that support is important because it makes it easier for employees to learn new technologies while increasing their skills and confidence. Lee et al. (2005) suggest executive assistance is associated with more adoption and use, but less perceived organizational support reduces the effectiveness of innovation adoption and utilization. Lee et al. (2006) added that senior management support is essential for innovation.

Training (T) positively affects actual usage (AU)

According to research by Talukder & Quazi (2010), most respondents agree that training is essential and helps employees understand and learn about new systems and technologies. Research by Talukder & Quazi (2010) explains that employees feel that training is valuable

and needs to be more definite and successful in organizations, especially when introducing unfamiliar systems or new technologies. Respondents believe that training is needed to improve the efficiency, effectiveness, productivity, and expertise of employees about new technologies and their applications (Talukder & Quazi, 2010). Respondents indicated that training helped them learn various features and practice using them, making them more comfortable and confident in utilizing new technologies (Talukder & Quazi, 2010).

Incentive (I) positively affects actual usage (AU)

Talukder & Quazi (2010) said that most respondents gave an equation between time and incentives. They feel that time is very important, and providing the necessary time can replace an excellent stimulant for making a new technology or system Talukder & Quazi (2010). According to Bhattacherjee (1998), personal benefits such as career advancement, personal capacity, formal and informal legality, increased independence, certainty about self-esteem and performance, and greater job safety are rewarded for employees. According to research by Talukder & Quazi (2010), incentives tend to encourage employees to adopt and participate in sustainable innovations in Australian universities.
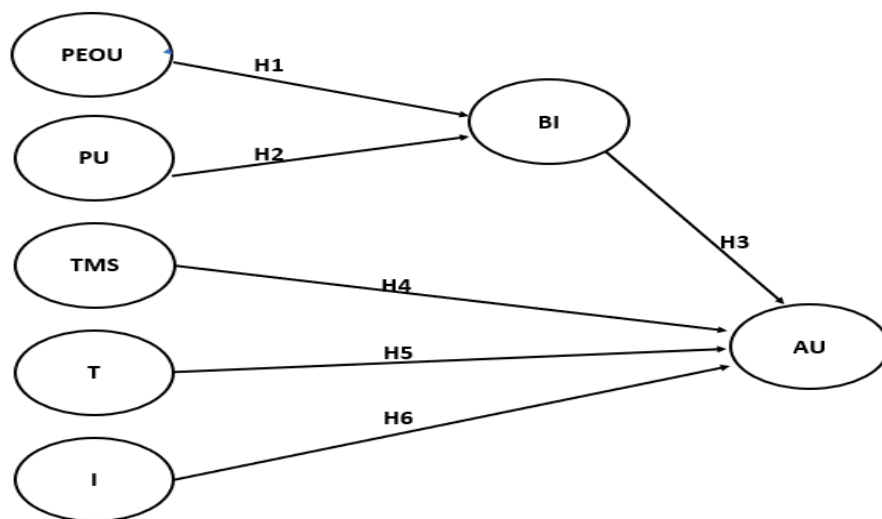
2.3 Conceptual Framework

Figure 1: Conceptual Framework

Information:

- PEOU : Perceived ease of use
- PU : Perceived usefulness
- TMS : Top Management Support
- T : Training
- I : Incentive
- BI : Behavioral Intention
- AU : Actual Usage

Based on the description of the research framework above, the following is an explanation of the hypothesis:

H1: Perceived ease of use (PEOU) positively affects behavioral intention (BI) related to the use of Myklass

H2: Perceived usefulness (PU) positively affects behavioral intention (BI) related to the use of Myklass

H3: Behavioral intention (BI) positively affects actual usage (AU) related to the use of Myklass H4: Top management support (TMS) positively affects actual usage (AU) related to Myklass usage

H5: Training (T) positively affects actual usage (AU) related to Myklass use

H6: Incentive (I) positively affects actual usage (AU) related to Myklass usage

2.4 Methodology

This study uses a quantitative approach design with a case study method. This research uses the dyadic method, namely data collection with paired respondents between lecturers and students. The population in this study were lecturers and students at the University of Muhammadiyah Yogyakarta. Purposive sampling is a technique that will be used in sampling, namely permanent educator lecturers and students at least semester two users of Myklass at Muhammadiyah University of Yogyakarta. This research is planned to use samples from 4 selected faculties, which are the most Myklass users in the odd semester period of the 2021/2022 academic year, namely the Faculty of Economics and Business, Faculty of Medicine and Health Sciences, Faculty of Social and Political Sciences and Faculty of Engineering. The sample from each faculty consisted of 100 lecturers and 100 students, so there were 200 respondents.

This study's primary data collection technique used a survey method, utilizing a five-point Likert scale and an online questionnaire, namely Google Form. Structural Equation Model (SEM) with Partial Least Square (PLS) program is an analytical method in this research. The PLS method was used in this study because it was based on the research objectives and sample condition. The two main stages of the PLS-SEM technique are the measurement model (measurement of the variable model) and the structural model (measurement of the structure).

3.0 RESULT

3.1 The result of reliability and validity testing

The prime test is a measurement model which determines the validity and reliability of the variables. Testing the validity of the reflective model uses a loading factor reference, which is obtained from all question items by meeting the recommended values. The loading factor value of 0.7 means ideal, indicating that the indicator is valid for measuring the constructs formed, next through practical research experience; a loading factor of 0.5 is still acceptable

(Haryono, 2017). Through Figure 1 and Figure 2, the results of the validity measurement for lecturer respondents can be seen.
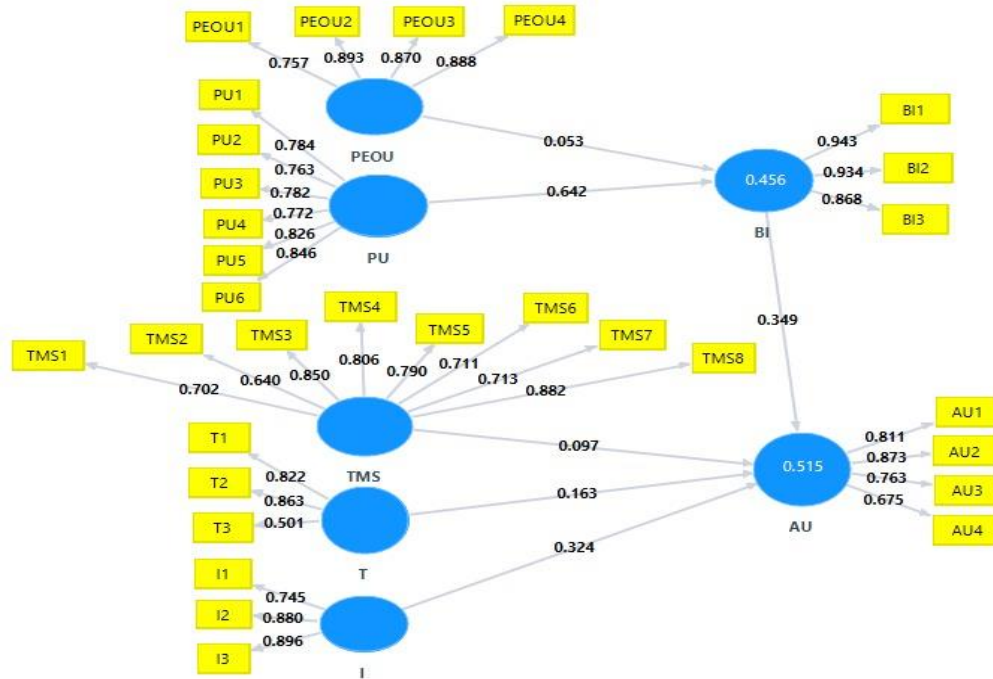

Figure 2: Measurement Model Output Display for Lecture Respondent
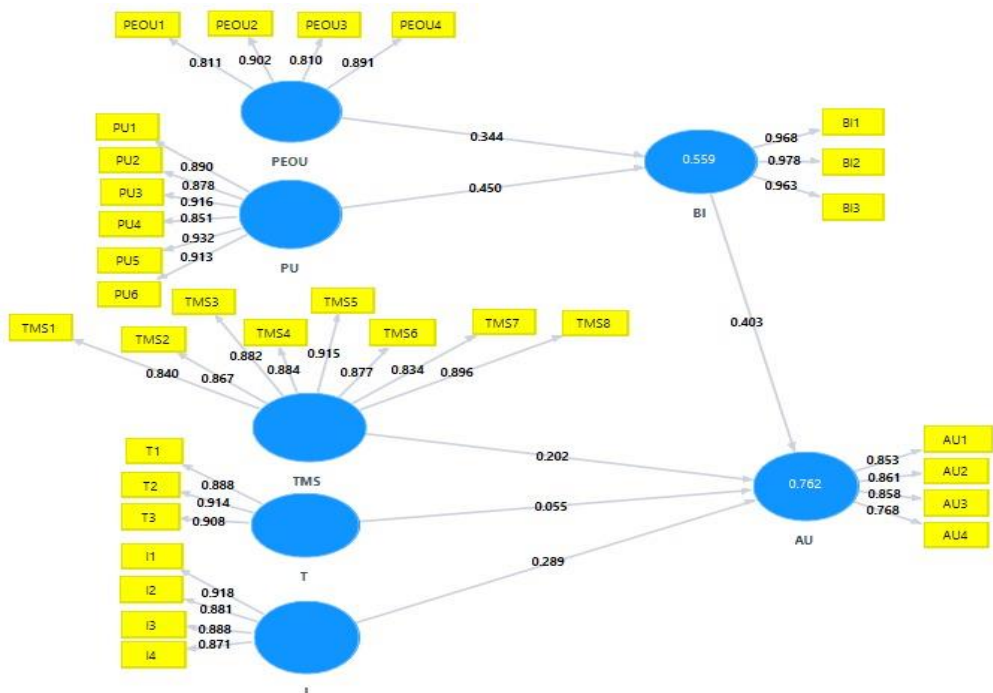

Figure 3: Measurement Model Output Display for Student Respondent

In the reflective model, validity testing uses a correlation between an item and construct scores. Figure 1 and Figure 2 provide information that the loading factor has a value above the required value, namely 0.5, meaning that in this study, the indicator is valid or meets convergent validity. Figure 1 and Figure 2 show that the results of the instrument testing of the research variables have a loading factor value of 0.5, which is greater than the I4 for lecturer respondents of 0.498, so it is dropped. This indicator has low convergent validity, so it does not meet the required threshold. The next step is to rerun the process so that the model meets the convergent validity requirements. After going through the validation process, it was concluded that all the question instruments used from the research variables for both lecturer and student respondents were valid.

Table 1: Cronbach's Alpha and Composite Reliability for Lecture Respondent

	Cronbach's Alpha	Composite Reliability
Perceived Ease of Use	0.878	0.914
Perceived Usefulness	0.885	0.912
Top Management Support	0.898	0.918
Training	0.607	0.783
Incentive	0.792	0.880
Behavioral Intention	0.903	0.939
Actual Usage	0.793	0.863

Source: Data Processing using SmartPLS (2022)

Table 2: Cronbach's Alpha and Composite Reliability for Student Respondent

	Cronbach's Alpha	Composite Reliability
Perceived Ease of Use	0.877	0.915
Perceived Usefulness	0.951	0.961
Top Management Support	0.956	0.963
Training	0.888	0.930
Incentive	0.912	0.938
Behavioral Intention	0.968	0.979
Actual Usage	0.856	0.903

Source: Data Processing using SmartPLS (2022)

The second measurement model test is to test the reliability value. This step looks at the internal consistency reliability of Cronbach's Alpha and Composite Reliability (CR) values. The interpretation of Composite Reliability (CR) is the same as Cronbach's Alpha, while another measure of convergent validity is the Average Variance Extracted (AVE) value (Haryono, 2017). This study uses a threshold value of 0.6 for Composite Reliability (CR) and Cronbach's Alpha and 0.5 for Average Variance Extracted (AVE). A variable is considered reliable if it gives Cronbach's alpha (α) > 0.6 (Ghozali, 2011). An AVE value of at least 0.5 proves a good measure of convergent legality (Haryono, 2017).

The results of the reliability test of lecturers and students on all the variables studied are shown in table 1 and table 2. Through the value of composite reliability and the value of Cronbach's alpha, the evaluation of the reliability of internal consistency can be seen. Table 4.10 shows the results of the composite reliability and Cronbach alpha values for each construct because they have a value above 0.6. Convergent validity in the Average Variance Extracted (AVE) value is also good because the value is above 0.5. Based on the reliability test that has been shown, it is stated that all research variables, both lecturer and student respondents, have met the specified requirements and are displayed as fit gauges.

3.2 Results of Hypothesis Testing for Lecture Respondent

Table 5: Path Coefficients and Indirect Effects for Lecture Respondent

Relations	Original Sample (O)	Sample Mean (M)	Standard Deviation (S.T.D.E.V.)	T-Statistics (|O/STDEV|)	P-Values	Results
PEOU -> BI	0.053	0.059	0,079	0.668	0.504	Rejected
PU -> BI	0.642	0.640	0,079	8.165	0.000	Accepted
BI -> AU	0.349	0.337	0,091	3.819	0.000	Accepted
TMS -> AU	0.097	0.112	0,091	1.069	0.285	Rejected
T -> AU	0.163	0.112	0,081	2.009	0.045	Accepted
I -> AU	0.324	0.322	0,108	2.998	0.003	Accepted

Source: Data Processing using SmartPLS (2022)

3.3 Discussions for Lecture Respondent

Effect of perceived ease of use on behavioral intention

Perceived ease of use (PEOU) does not affect behavioral intention (BI), the result of the statistical value is $0.668 ≤ 1.96$, so there is no significant effect of ease of use on behavioral intention. Testing on the hypothesis that perceived ease of use (PEOU) positively influences behavioral intention (BI) by lecturers was not proven. This shows that the lecturer does not feel the ease of operating Myklass, so it does not affect the behavioral intention to use Myklass. So the development of Myklass, especially in terms of user-friendliness that has been carried out, has not had a positive impact on the behavioral intentions of lecturers to use Myklass. The results of this study are in contrast to research conducted by Abid (2019) with the title "Using Technology Acceptance Model (TAM) Model for Assessing Lecturer Behavioral Intentions Using the E-Learning System at the University of Babylon". That research states that the correlation indicates a positive relationship significant relationship between perceived ease of use and behavioral intention to use. So that the conditions that

occur in the UMY lecturer respondents can guarantee that the ease of using Myklass that they feel has not been able to strengthen their hearts, has not been able to form good behavior to take advantage of this platform.

Effect of perceived usefulness on behavioral intention

Perceived usefulness (PU) has an effect on behavioral intention (BI), the results of the t-statistical value of 8.165 1.96, so it can be said that the relevant impact of perceived usefulness on behavioral intention is found. The test of the hypothesis that perceived usefulness (PU) positively affects behavioral intention (BI) related to the use of Myklass by UMY lecturers was proven. The positive effect of perceived usefulness shows that the lecturer's perceived usefulness will affect the behavioral tendency to use Myklass. The higher the perceived usefulness felt by the lecturer, the higher the lecturer's intention to use Myklass. In other words, lecturers believe that the benefits of Myklass are indeed felt, especially in supporting an effective teaching process. Hence, it always intends to take advantage of this learning platform. The results of the research on this hypothesis are the research conducted by Abid (2019) with the title "Using Technology Acceptance Model (TAM) Model to Assess the Lecturers' Behavioral Intention to Use E-Learning System in University of Babylon". The resulting research states that the test results positively support the relationship between perceived usefulness and behavioral intention to use ELS, but the correlation is not strong. This result proves that both lecturers and students who use Myklass at UMY have the same perception of benefits from the presence of Myklass. Lecturers believe that Myklass supports an effective teaching process; based on this positive response, lecturers intend to take advantage of this learning platform.

Effect of behavioral intention on actual usage

Behavioral intention (BI) affects actual usage (AU). The result of the statistical t value is $3.819 \geq 1.96$, so behavioral intention significantly affects actual usage. Testing on the hypothesis that behavioral intention (BI) positively affects actual usage (AU) related to the use of Myklass by UMY lecturers was proven. The positive influence of the behavioral intention shows that if the behavioral intention is getting better (in this case, the behavioral intention is perceived to be more positive), the actual use will also be higher. This result means that the lecturer is satisfied with the convenience and usefulness of Myklass; therefore, positive behavioral intentions appear, which will then affect the actual use of Myklass. The research results for lecturer respondents on this hypothesis are by Moon & Kim (2001) entitled "Extending the TAM for a World-Wide-Web context". His research states that behavioral intentions to use www technology in the future have a strong positive correlation with the actual use of www. This result shows that the lecturers are satisfied with the convenience and benefits of Myklass, although there are still many shortcomings and need to be developed better. The behavioral intention response to use this learning platform has already appeared in the minds of lecturers, so they feel confident to maximize Myklass; the impact is the emergence of attitudes for actual use.

Effect of top management support on actual usage

Top management support (TMS) does not affect actual usage (AU). The result of the t-statistical value is $1.069 \leq 1.96$, so top management support has no significant effect on actual usage. Testing the hypothesis that top management support (TMS) positively affects

actual usage (AU) related to the use of Myklass by UMY lecturers was not proven. This condition shows that according to the lecturers' perception, the university leadership, in this case, the rector, dean, and head of the study program, has not shown full support for using Myklass. This result is because each faculty or study program has a different curriculum and learning system, so it is optional for them to use Myklass. The results of this research for lecturer respondents are inversely proportional to the research conducted by Talukder & Quazi (2010) entitled "Exploring The Factors Affecting Employees' Adoption and Use of Innovation". Their research stated that most of the respondents believed executive assistance was very important in legalizing a new technology or system because using a new system or technology without enthusiastic management assistance would be very difficult to learn. The UMY leadership has tried to streamline lecturers' work by presenting Myklass as a solution, but technical problems hamper it because each faculty or study program has a different curriculum and learning system, so it is optional for them to use Myklass. A clear example is the block system, a learning model in the medical and health faculties, which allows the department not to make Myklass the central platform.

Effect of training on actual usage

Training (T) affects the actual use (AU), the result of the statistical value of t is $2.009 \geq 1.96$, so it can be said that there is a relevant effect of training on actual use. The results of the hypothesis testing that training (T) has a positive effect on actual use (AU) related to the use of Myklass by UMY lecturers. This result shows that the lecturers believe that training is needed to be skilled and successfully implement Myklass. Lecturers have also benefited from the Myklass training and guidance the university has provided. The results of this study for lecturer respondents are from research conducted by Talukder & Quazi (2010) entitled "Exploring the Factors Affecting Employees' Adoption and Use of Innovation". Their research stated that most of the respondents agreed that training is very important and accommodates employees to become more proficient in new systems and practice new technologies. Lecturers feel they are familiar with and understand the various features of Myklass; therefore, not all lecturers need training. So not every periodic training will be carried out; only the departments that feel the need will be given training.

Effect of incentive on actual usage

Incentive (I) affects actual usage (AU), the result of the statistical t value is $2,998 \geq 1.96$, so it can be said that there is a relevant effect of incentive on actual usage. The test of the hypothesis that incentive (I) positively affects actual usage (AU) related to the use of Myklass by UMY lecturers was proven. This means that incentives significantly positively affect actual usage by Myklass user lecturers. This condition shows that lecturers believe incentives such as rewards and workload reduction are essential after carrying out tasks using Myklass. Incentives are crucial for lecturers to maintain motivation amid busy work and busyness. The results of research for lecturer respondents on this hypothesis follow research conducted by Talukder & Quazi (2010) entitled "Exploring The Factors Affecting Employees' Adoption and Use of Innovation,". Their research shows that most respondents compare time to incentives; time is another important variable for them. Adopting a new technology or system is time-consuming, and it represents a good incentive. The results of this study indicate that lecturers believe incentives are needed to use the new system successfully. Lecturers believe

that rewards and workload reduction are essential for them. Incentives are an additional motivation for them to implement effective and efficient learning through Myklass actively.

3.4 Results of Hypothesis Testing for Student Respondent

Table 6: Path Coefficients and Indirect Effects for Student Respondent

Relations	Original Sample (O)	Sample Mean (M)	Standard Deviation (S.T.D.E.V.)	T-Statistics (|O/STDEV|)	P-Values	Results
PEOU -> BI	0.344	0.337	0,126	2.722	0.007	Accepted
PU -> BI	0.450	0.456	0,122	3.686	0.000	Accepted
BI -> AU	0.403	0.397	0,102	3.947	0.000	Accepted
TMS -> AU	0.202	0.208	0,079	2.562	0.011	Accepted
T -> AU	0.055	0.063	0,085	0.651	0.515	Rejected
I -> AU	0.289	0.284	0,097	2.974	0.003	Accepted

Source: Data Processing using SmartPLS (2022)

3.5 Discussions for Student Respondent

Effect of perceived ease of use on behavioral intention

Perceived ease of use (PEOU) affects behavioral intention (BI), the result of the statistical t value is $2.722 \geq 1.96$, so it can be said that there is a relevant effect of perceived ease of use on behavioral intention. Testing on the hypothesis that perceived ease of use (PEOU) positively affects behavioral intention (BI) by students using Myklass UMY was proven. This result shows that the perceived convenience felt by students will affect behavioral intentions to use Myklass. So the development of Myklass, especially in user-friendliness, has proven to impact students' behavioral intentions in using Myklass positively. The higher the perception of comfort felt by students, the student's intention to use Myklass is also higher. In other words, students have felt the ease of operating Myklass, which has been proven to support their learning process. The conclusions of this study are the following research conducted by Ayele & Birhanie (2018) with the title "Acceptance and Use of e-learning Systems: The Case of Teachers at the Ethiopian University Institute of Technology". Their research states that the impression of the simplicity of use positively affects behavioral expectations for using e-learning systems. Students have felt the ease of operating Myklass, and they also have a positive perception of Myklass; it is proven that this platform has supported their learning process.

Effect of perceived usefulness on behavioral intention

Perceived usefulness (PU) affects behavioral intention (BI), the result of the statistical t value is $3.686 \geq 1.96$, so it can be said that there is a relevant effect of perceived usefulness on behavioral intention. The test of the hypothesis that perceived usefulness (PU) positively affects behavioral intention (BI) related to the use of Myklass by UMY students was proven. The positive effect of perceived benefits indicates that students' perceived benefits will influence behavioral intentions to utilize Myklass. The greater the perception of usefulness received by students, the greater the student's intention to use Myklass. Students believe that Myklass is useful and efficient and helps students to be competitive, thus increasing their

intention to take advantage of this LMS. The results of this study are also by Ayele & Birhanie (2018) with the title "Acceptance and use of e-learning systems: the case of teachers in technology institutes of Ethiopian Universities". This result proves that students who use Myklass at UMY have valuable perception of the presence of Myklass. Students believe that Myklass is efficient and helps them to be competitive; based on the positive response, students intend to take advantage of this learning platform.

Effect of behavioral intention on actual usage

Behavioral intention (BI) affects actual usage (AU). The result of the statistical t value is $3.947 \geq 1.96$, so it can be said that there is a relevant effect of behavioral intention on actual usage. Testing the hypothesis that behavioral intention (BI) positively affects actual usage (AU) related to the use of Myklass by UMY students was proven. The positive influence of the behavioral intention shows that if the behavioral intention is getting better (in this case, the behavioral intention is perceived to be more positive), the actual use will also be higher. This result shows that students are satisfied with the convenience and usefulness of Myklass, then positive behavioral intentions emerge, which will affect the actual use of this learning platform. This finding is also under research conducted by Abid (2019) with the title "Using Technology Acceptance Model (TAM) Model to Assess the Lecturers' Behavioral Intention to Use E-Learning System in University of Babylon". His research concludes that behavioral tendencies are positively influenced by behavior using e-learning systems. This result shows that students are satisfied with the convenience and benefits of Myklass, although there are still many shortcomings and need to be developed better. The behavioral intention response to use this learning platform has appeared in the minds of students, so they feel confident to maximize Myklass; the impact is the emergence of attitudes for actual use.

Effect of top management support on actual usage

Top management support (TMS) affects actual usage (AU), the result of the statistical t value is $2,562 \geq 1.96$, so it can be said that there is a relevant effect of top management support on actual usage. The hypothesis test that top management support (TMS) positively affects actual use (AU) related to the use of Myklass by UMY students is proven. This condition shows that based on student perceptions, the university leadership, in this case, the lecturers, has shown full support for the actual use of Myklass. Students feel confident and comfortable using Myklass because lecturers always support and encourage students to use this LMS actively. Lecturers always provide lecture materials, quizzes, and exams through this platform, and students can also easily access the results of their learning; this is what causes lecturers and students to have a solid commitment to using Myklass. This study has the same results as the research conducted by Lee et al. (2005) entitled "The intention to use computerized reservation systems: the moderating effects of organizational support and supplier incentives,". Their research shows that executive assistance is associated with more adoption and use, while a lack of organizational support hinders innovation and effective use. Students feel confident and comfortable using Myklass because lecturers always support and encourage students to use this LMS actively. Lecturers on every occasion always invite students to optimize this system, and every lecture material, attendance, quizzes, and exams are always placed in Myklass. So that the lecturer's commitment is not only shown by invitations but also by actions.

Effect of training on actual usage

Training (T) does not affect actual use (AU); the results of the t-statistical value of 0.651 ≤ 1.96, so it can be said that there is no relevant effect of training on actual use. The hypothesis test that training (T) positively affects actual usage (AU) related to the use of Myklass by UMY students was not proven. This condition shows that students have not received adequate guidance or training related to Myklass, even though they believe training is essential. The results of this research for student respondents are not by Ayele & Birhanie (2018) with the title "Acceptance and use of e-learning systems: the case of teachers in technology institutes of Ethiopian Universities". This condition shows that students have not received adequate guidance or training related to Myklass. This incident is because the undergraduate level is a transition from the upper education level, so students are still not entirely familiar with the learning platform system. UMY, especially the IT team, needs to immediately solve this problem, either by doing training for each faculty or by publishing an adequate manual.

Effect of incentive on actual usage

Incentive (I) affects actual usage (AU), the result of the statistical t value is 2,974 ≥ 1.96, so it can be said that there is a relevant effect of incentive on actual usage. The hypothesis test that incentive (I) positively affects actual usage (AU) related to the use of Myklass by UMY students was proven. This condition shows that students are given appreciation and task efficiency by lecturers when using Myklass. Although it is not material, incentives like this make students feel appreciated for their efforts to learn and make maximum use of this learning platform. This finding also contradicts the research conducted by Ayele & Birhanie (2018) with the title "Acceptance and use of e-learning systems: the case of teachers in technology institutes of Ethiopian Universities," which states that incentives hurt behavior in using e-learning systems. This study shows that students believe incentives are necessary for successfully using the new system, although each has a different perception of incentives. Students believe that appreciation and college efficiency is what they need. This incentive is an additional motivation for them to actively implement effective and efficient learning through Myklass.

4.0 CONCLUSIONS

Perceived ease of use (PEOU) does not affect behavioral intention (BI) by lecturers using Myklass UMY. These results indicate that the impression of simplicity received by UMY lecturers does not affect behavioral intentions using Myklass. Lecturers have not considered Myklass easy to operate, so the perception of convenience is not a determining factor in behavioral intentions to use Myklass. Meanwhile, for students, perceived ease of use (PEOU) affects behavioral intention (BI) in using Myklass. Students feel that Myklass is easy to operate, and they consider that the perception of convenience is one of the conditions determining the intention to implement Myklass.

Perceived usefulness (PU) has a positive impact on the behavioral intentions (BI) of lecturers and students using Myklass UMY. This result means that lecturers and students already have the same perception regarding the usefulness aspect of Myklass. Lecturers and students think that the presence of Myklass has helped them to work effectively and efficiently. They also

consider this aspect of practicality as one of the determinants of behavioral intentions for implementing Myklass.

Behavioral intention (BI) has a positive impact on actual usage (AU) by lecturers and students who use Myklass UMY. This finding shows that both lecturers and students are satisfied with the convenience and usefulness of Myklass, although there are still many shortcomings and need to be developed better. This satisfaction raises a behavioral intention response to use this platform to lead to a positive attitude, namely actual use.

Top management support (TMS) does not affect lecturers' actual usage (AU) using Myklass UMY. This condition shows that according to the lecturers' perception, the university leadership, in this case, the rector, dean, and head of the study program, has not shown full support for using Myklass. This incident happens because each faculty or study program has a different curriculum and learning system, so it is optional for them to use Myklass. Different student findings indicate that top management support (TMS) positively impacts the actual use (AU) of Myklass utilization. Students feel confident and comfortable using Myklass because lecturers always support and encourage students to use this LMS actively.

Training (T) positively affects lecturers' actual usage (AU) using Myklass UMY. This result shows that the lecturers believe that training is needed to be skilled and successfully implement Myklass. Lecturers have also benefited from the Myklass training and guidance the university has provided. The results differed for students that training (T) did not affect the actual usage (AU) of using Myklass. This condition shows that students have not received adequate guidance or training related to Myklass, even though they believe training is essential. This finding is undoubtedly a critical note for universities, especially the IT team, to immediately provide training and assistance to students to be skilled in operating Myklass.

Incentive (I) positively affects the actual usage (AU) by lecturers and students who use Myklass UMY. This study shows that both lecturers and students believe that incentives are needed to use the new system successfully. However, each has a different perception of incentives. Lecturers believe that rewards and reductions in workload are essential to them, and students believe that appreciation and lecture efficiency is what they need. This incentive is an additional motivation for them to actively implement effective and efficient learning through Myklass.

This research is based on the conclusion of the analysis above; there are differences in the perception of technology acceptance between lecturers and students. Although the object is the same, namely Myklass, because each subject has a different understanding, the study results show differences between the two. This result shows that the implementation of technology requires holistic handling. Technical aspects of technology must pay attention to usability, reliability, and ease of use issues. It is also essential to pay attention to aspects of organizational factors, both management support, training, and incentives because it becomes challenging to implement a new system without organizational support.

The results of this study are by initial estimates that will bring up the same and different perceptions for each subject. This research is also different from research done; in this study, we can see a broader and more detailed result that will influence further decision-making. In some cases, we can make the same decision because both lecturers and students have the same perception, but in other cases, we have to make different decisions for each subject.

Future research is expected to increase the number of samples. The distribution of questionnaires using Google forms can lead to bias in filling them out; further researchers are expected to pay attention to this. Further research is also expected to expand the scope of respondents not from the same community. Further research is expected to complement the interview method to get more comprehensive answers from respondents.

REFERENCES

Ajzen, I. & Fishbein, M. (1980). Understanding Attitudes and Predicting Social Behavior, Prentice-Hall

Abid, R. N. (2019). Using Technology Acceptance Model (TAM) Model to Assess the Lecturers ' Behavioral Intention to Use E-Learning System in University of Babylon Using Technology Acceptance Model (TAM) Model to Assess the Lecturers ' Behavioral Intention to Use E - Lear. International Journal of Engineering and Technology, 7(April), 956–963.

Alharbi, S., & Drew, S. (2014). Using the Technology Acceptance Model in Understanding Academics' Behavioural Intention to Use Learning Management Systems. International Journal of Advanced Computer Science and Applications, 5(1). https://doi.org/10.14569/ijacsa.2014.050120

Analytics, G. (2022). Analytics Myklass UMY. https://analytics.google.com/analytics/web/?authuser=0#/report/defaultid/a160980691 w225822507p213787397/overviewgraphOptions.selected=analytics.n hDay/

Ayele, A. A., & Birhanie, W. K. (2018). Acceptance and use of e - learning systems : the case of teachers in technology institutes of Ethiopian Universities. Applied Informatics, 1–12. https://doi.org/10.1186/s40535-018-0048-7

Bhattacherjee, A. (1998). Managerial influences on intraorganizational information technology use: A principal-agent model. Decision Sciences, 29(1), 139–162. https://doi.org/10.1111/j.1540-5915.1998.tb01347.x

Chen Ying, L., Chih-Hsuan, T., & Wan-Chuan, C. (2015). The Relationship Between Attitude Toward Using And Customer Satisfaction With Mobile Application Services: An Empirical Study From The Life Insurance Industry. Journal of Enterprise Information Management, 53(4), 194–200.

Davis, F D. (1985). A technology acceptance model for empirically testing new end-user information systems: Theory and results. Management, Ph.D.(May), 291. https://doi.org/oclc/56932490

Davis, Fred D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS Quarterly: Management Information Systems, 13(3), 319–339. https://doi.org/10.2307/249008

Fishbein, M. and Ajzen, I. (1975). Belief, Attitude, Intention, and Behavior: an Introduction to Theory and Research, Addison-Wesley, MA.

Ghozali, Imam. (2011). Aplikasi Analisis Multivariate Dengan Program IBM SPSS19, Semarang: Badan Penerbit Universitas Diponegoro.

Haryono, S. (2017). Metode SEM untuk penelitian manajemen dengan AMOS LISREL PLS. Luxima Metro Media, 450.

Lee, H. Y., Lee, Y. K., & Kwon, D. (2005). The intention to use computerized reservation systems: The moderating effects of organizational support and supplier incentive. Journal of Business Research, 58(11 SPEC. ISS.), 1552–1561. https://doi.org/10.1016/j.jbusres.2004.07.008

Lee, S. M., Kim, I., Rhee, S., & Trimi, S. (2006). The role of exogenous factors in technology acceptance: The case of object-oriented technology. Information and Management, 43(4), 469–480. https://doi.org/10.1016/j.im.2005.11.004

Marakarkandy, B., Yajnik, N., & Dasgupta, C. (2017). Enabling internet banking adoption: An empirical examination with an augmented technology acceptance model (TAM). Journal of Enterprise Information Management, 30(2), 263–294. https://doi.org/10.1108/JEIM-10-2015-0094

Moon, J., & Kim, Y. (2001). Extending the TAM for a World-Wide-Web context. 38(June 2000).

Talukder, M., & Quazi, A. (2010). Exploring the factors affecting employees' adoption and use of innovation. Australasian Journal of Information Systems, 16(2), 1–30. https://doi.org/10.3127/ajis.v16i2.594

Tucker, M., Jubb, C., & Yap, C. J. (2020). The theory of planned behaviour and student banking in Australia. International Journal of Bank Marketing, 38(1), 113–137. https://doi.org/10.1108/IJBM-11-2018-0324

Usman, H., Mulia, D., Chairy, C., & Widowati, N. (2020). Integrating trust, religiosity and image into technology acceptance model: the case of the Islamic philanthropy in Indonesia. Journal of Islamic Marketing. https://doi.org/10.1108/JIMA-01-2020-0020