The Effect of Performance Expectancy, Facilitating Condition, Effort Expectancy, and Perceived Easy to Use on Intention to using Media Support Learning Based On Unified Theory of Acceptance and Use of Technology (UTAUT)

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Abstract. The purpose of this study was to explore performance expectancy, facilitating conditions, effort expectancy, and perceived ease to use on the intention of using learning support media. Furthermore, it examined the intention to use learning support media on the commitment to use it. The quantitative method approach was used as a basis for conducting this research. The data source used is primary data, namely questionnaires. The distribution of questionnaires is carried out online through Google Forms. The respondents in the study were 100 respondents with a sampling technique using purposive sampling. Respondents were students who had used learning support media, such as Canva, Kahoot, Zoom, Google Meet, and others. The data analysis tool used SmartPLS. The result of this study stated that performance expectancy, facilitating conditions, effort expectancy, and perceived ease to use had a positive and significant effect on the intention to use learning support media. Moreover, the intention to use learning support media had a positive and significant effect on the commitment to use media support learning.

1 Introduction

Before due to the COVID-19 pandemic, teaching and learning activities around the world including Indonesia, used a traditional approach. It means that the teaching and learning process is carried out face to face. It means that the teaching and learning process is carried out face to face. Although, 15.4% of educational institutions already use e-learning [1]. However, all educational institutions switche to using e-Learning [2]. Even before the use of e-learning, colleges and schools have stopped the teaching and learning process. Facts prove that 1.6 billion schools from 190 countries are forced to stop learning activities [3].

The use of e-learning in the world of education during a pandemic is very massive. The governments of Indonesia, China, Sweden, the United States and South Africa have established online learning policies for students so that they can continue to participate in teaching and learning activities from home [4]. However, arisen problems in online learning activities is the decrease in student motivation in participating the online learning because learning methods are not interactive and tend to be monotonous. [5].

To overcome the problem, the educators took the initiative to use learning support media [6]. Applications such as Whatsapp, Instagram, Twitter, Youtube, Canva, and Kahoot are some of the applications used to make learning more interactive [7, 8]. However, there is still very little research discussing media support learning, most previous research investigated the use of e-learning on student interest [9, 10]. Therefore, this study review the desire and commitment of students in using media support learning in the learning process [11].

Furthermore, this study explore at the antecedents of the intention to use learning media support, namely performance expectancy, facilitating conditions, effort expectancy, and perceived ease to use. In addition, this study also was to look at the relationship between intention to use media learning support and commitment to use media learning support. This research uses the basis of the Unified Theory of Acceptance and Use of Technology (UTAUT). The theory is a theoretical model designed to predict an attitude and behavior in adopting or using technology [12].

2 Literature

2.1 Unified Theory of Acceptance and Use of Technology (UTAUT)

UTAUT is constructed into several constructs, namely performance expectancy, facilitation condition, perceived easy to use and effort expectancy [13, 14]. The Unified Theory of Acceptance and Use of Technology (UTAUT) is a conceptual framework developed to understand the behavior of using information technology about UTAUT [15]. The theory has four main factors that influence the

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acceptance and use of technology, namely: Performance expectancy, Effort expectancy, Facilitating conditions, and Perceived Easy To Use [16].

Performance expectancy is an important factor in (UTAUT). Performance expectancy refers to an individual's perception of the extent to which using technology will increase their performance or effectiveness in carrying out a particular task. In the context of UTAUT, Performance expectancy is one of the factors that most influences the user's intention to accept and use technology [17, 18].

Facilitating conditions are environmental factors. It can help the use of technology. Facilitation conditions are considered important because these factors can affect users' perceptions of the ease of use of technology and ultimately affect their decision to accept and use technology. Therefore, companies and IT departments must pay attention to these factors in promoting the use of technology in the work environment [19].

Effort expectancy is an individual's perception of how easy or difficult to use a particular technology. If individuals feel that using the technology requires a lot of effort, then this can influence their decision to accept or reject the technology [20]. Meanwhile, perceived easy to use is the level of individual perception of how easy technology can be used. If individuals feel that the technology is easy to use, then they are more likely to accept and use the technology [21, 22].

2.2 Intention to use media support learning

Intention to use media support learning is someone's intention to use certain learning media to facilitate or enhance the learning process[23, 24]. Meanwhile, learning motivation encourages someone to learn or try to achieve learning goals. These two concepts are interrelated. It is because when someone has a strong learning motivation, then he will tend to have a higher intention to use learning support media. Contrarywise, if someone has a high intention to use certain learning media, then this can motivate them to study more actively and effectively [25].

2.3 Commitment to use media support learning

Commitment to use media support learning is a concept related to determination or decision in using media to support the learning process. This concept refers to a person's intention or commitment to actively use various types of media in order to broaden knowledge, improve skills, and improve learning outcomes [26]. In this context, the media can be books, videos, audio, presentations, or other information and communication technology (ICT). By utilizing this media, it can gain access to learning resources that are more diverse and continuous, and can learn more interactively and flexibly [27].

2.4. Previous research gap

Research on intention to use and commitment to use has been conducted [28, 29]. However, the study reviews more about the use of e-learning only, but research that discusses intention to use and commitment to use is still very little [30]. Therefore, this study will discuss the factors that influence the intention to use and commitment to use the use of media support learning.

2.5. Hypotheses

Table 1 shows hypotheses development in this research.

Table 1. Hypotheses development.

Hypotheses	Description
H₁	Performance Expectacy has a positive effect on Intention to Use Media Support Learning
H₂	Facilitating Condition has a positive effect on Intention to Use Media Support Learning
H₃	Effort Expectancy has a positive effect on Intention to Use Media Support Learning
H₄	Perceived Easy to Use has a positive effect on Intention to Use Media Support Learning
H₅	Intention to Use Media Support Learning has a positive effect on Commitment to Use Media Support Learning

3 Research methodology

This study used a qualitative approach with primary data. The data collection method used a questionnaire. It was distributed online using the goggle form with 100 respondents. In determining the respondents, this study used a purposive sampling technique or sampling based on certain criteria. Respondents were students who had used learning support media, such as: Canva, Kahoot, Zoom, Google Meet, and others. The data analysis tool in this study uses SmartPLS 3.0. Table 2 shows that the measuring instrument used adopts from previous studies.

Table 2. Measurement variable.

Variable	Indicators	Sources
Performance Expectancy	a) Learning achievement b) Productivity c) On Time in the execution of tasks d) Help with tasks e) Belief	[1]
Facilitating Condition	a) Clear instructions b) Standardized protocols c) Accessibility d) Adequate training e) Suitable environment	[31]
Effort Expectancy	a) Habit b) Self-confidence c) Understand d) Speed e) Motivation	[1]

Perceived Easy to Use	a) Ease of finding information b) Ease of Use c) Ease of understanding how it works d) Security e) Does not require much effort	[32]	
Intention to Use Media Support Learning	a) Intend to use b) Expect that using c) Confident d) Excited e) Expect	[33]	
Commitment To Use Media Support Learning	a) Continuous use b) Recommend c) Consistency d) Dependency e) Importance	[34]	

4 Result and discussion

Questionnaires were distributed to 100 respondents using the online survey method using the Google form. The subsequent analysis used validity, reliability, and testing hypotheses. Based on the results of a descriptive analysis of demographic characteristics, it can be seen that based on gender, the respondents were dominated by men (51%) and women (49%). Respondents are students who are ≥ 19 years old. Validity and reliability tests were carried out to ensure the measuring instruments. Table 3 shows that the result of measuring instruments was appropriate and consistent.

Table 3. Validity and reliability test.

Observed Variable	Result of Validity Test	Result of Reliability Test	
	Standardized factor loading ≥ 0,7	Cronbach's Alpha ≥ 0,5	Composite Reliability (CR) ≥ 0,5
Performance Expectancy			
PE1	0.902		
PE2	0.897		
PE3	0.824	0.902	0.927
PE4	0.841		
PE5	0.766		
Facilitating Condition			
FC1	0.723		
FC2	0.721		
FC3	0.723	0.793	0.857
FC4	0.797		
FC5	0.726		
Effort Expectancy			
EE1	0.770		
EE2	0.819		
EE3	0.862	0.857	0.897
EE4	0.799		
EE5	0.723		
Perceived Easy to Use			
PET1	0.712		
PET2	0.754		
PET3	0.780	0.821	0.871
PET4	0.749		
PET5	0.794		

Observed Variable	Result of Validity Test	Result of Reliability Test	
	Standardized factor loading ≥ 0,7	Cronbach's Alpha ≥ 0,5	Composite Reliability (CR) ≥ 0,5
Intention to Use Media Support Learning			
ITUM1	0.880		
ITUM2	0.904		
ITUM3	0.886	0.926	0.944
ITUM4	0.892		
ITUM5	0.831		
Commitment To Use Media Support Learning			
CTUM1	0.877		
CTUM2	0.880		
CTUM3	0.886	0.938	0.953
CTUM4	0.909		
CTUM5	0.921		

Based on the results of the validity and reliability tests in Table 3, it showed that the measuring instruments were valid and reliable, and continued into hypothesis testing. In the overall validity test, the question items had a loading factor ≥ 0.7, so it was valid. Meanwhile, for the reliability test, it can be seen that all question items have a Cronbach's Alpha value ≥ 0.5. It showed that the question items in this study are reliable or consistent. Previous research stated that when the questionnaire question items had a factor loading value and Cronbach's alpha ≥ 0.5, they met the prerequisites for hypothesis testing [35]. Figure 1 show that hypotheses result with SmartPLS.
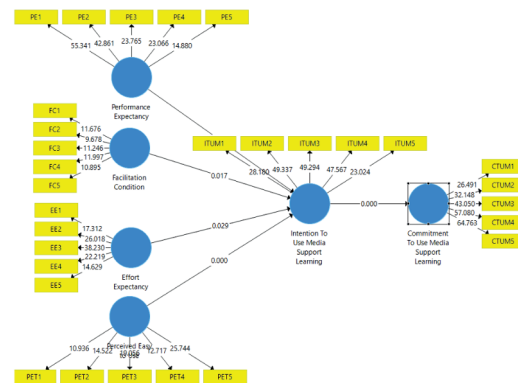

Fig. 1. Statistical hypotheses testing.

Table 4 show that conclusion of hypothesis testing:

Table 4. Summary of hypotheses testing.

Hypothesized	P Value	Conclusion
Performance Expectacy ➔ Intention to Use Media Support Learning	0.029	Supported
Facilitating Condition ➔ Intention to Use Media Support Learning	0.017	Supported
Effort Expectacy ➔ Intention to Use Media Support Learning	0.000	Supported

Hypothesized	P Value	Conclusion
Perceived Easy to Use ➔ Intention to Use Media Support Learning	0.000	Supported
Intention to Use Media Support Learning ➔ Commitment to Use Media Support Learning	0.000	Supported

The first finding in this study found that performance expectancy had a positive and significant effect on the intention to use media support learning. In the context of media supported learning, performance expectancy referred to how much individuals believe that the use of technology can improve their learning performance [36]. The higher the performance expectancy, the more likely the individual had the intention to use technology in learning. It was because they believed that technology can improve their learning performance, so they tend to feel confident and motivated to use the technology [37].

The second finding found that facilitating conditions had a positive and significant effect on the intention to use media support learning. Facilitating conditions affected a person's intention to use learning support media. This factor included everything that can facilitate or complicate the use of learning support media, including resources, accessibility, technological skills, social support, and other environmental factors [38]. Individuals who had easy access to learning support media were more inclined to use the media to support their learning [39].

Another finding from this study found that effort expectancy had a positive and significant effect on the intention to use media support learning. The effect of effort expectancy by using learning support media would easy to use media support learning. Furthermore, the less the user's perception of the use of media support learning, the higher the possibility of users recommending using the media for learning [40]. Someone felt easy and simple in using media support learning, they tended to feel more comfortable and confident. Thus, it can increase their intention to continue using the media as part of their learning process [41].

The fourth finding in this study found that perceived easy to use had a positive and significant effect on the intention to use media support learning. The easy to use the media support learning, then the higher the possibility for someone to use it in learning [42]. In the context of learning, the use of technology and learning support media such as online learning platforms, learning applications, or learning software can help increase student involvement in learning, and make it easier for them to learn material in a more interactive and effective way.

The final finding of this study found that the intention to use media support learning had a positive and significant effect on commitment to use media support learning. Intention to use media support learning was a person's belief or desire to use learning media in the learning process. Meanwhile, commitment to use media support learning was a person's decision or determination to use learning media for a long and consistent period of time. There was a close effect between intention to use media support learning and commitment to use media support learning. The higher the intention to use media support learning, the higher the possibility that someone would have a commitment to use media support learning [43].

5 Conclusion

From the results of this study, it concluded that performance expectancy, facilitating conditions, effort expectancy, and perceived ease of use had a positive and significant effect on the intention to use media support learning. In addition, this study also showed that the intention to use media support learning has a positive and significant effect on commitment to use media support learning.

The implication for educational institutions stated that the institutions must focus on developing multimedia-based teaching materials, so that the learning process can run interestingly. Furthermore, can increase students' desire to use these teaching materials so that in the end it would increase their learning motivation. In addition, study with a similar theme needed to be carried out for further research in order to add to the knowledge. Moreover, it would be able to focus on the antecedents of the intention to use media support learning, so that it was not in the research model, such as: self-efficacy, hedonism, ability and experience, and psychological climate.

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