Study on Acceptance of Google Meet as a Learning Platform among Students in Higher Education Preliminary

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Abstract— For nearly two years in the Coronavirus disease (COVID-19) pandemic, many institutions have been using Google Meet as the main teaching platform for online classes. However, not many researchers focus on the use of this platform from students' perspectives (Diaz-Nunez et al., 2021). This research aims to understand students' perspectives of Google Meet as a learning platform in higher education by using the Unified Theory of Acceptance and Use of Technology (UTAUT) model. This quantitative study had analyzed 108 responses from students, obtained using purposive sampling. Descriptive statistical (mean, standard deviation) analysis of the collected data was done using DATAtab software. The result suggests that effort expectancy (EE) was seen as the most important factor that influenced their use of Google Meet. On the contrary, performance expectancy (PE) was seen as the least influencing factor by the students. In conclusion, students considered Google Meet as an easy-to-use classroom technology. However, educators should not rely entirely on it during online learning and need to incorporate other additional applications to further improve learning effectiveness.

Keywords—Google Meet, UTAUT, online teaching platform.

I. INTRODUCTION

The current COVID-19 pandemic has severely impacted higher education as normal teaching and learning sessions are disrupted. The declaration of movement control order by many governments around the world resulted in limited interaction which affects the method of knowledge delivery. At this moment, the use of technology in education had increased drastically out of necessity as educators resorted to e-learning. Various learning management systems and platforms were adapted by educators and institutions to enable the distant teaching and learning process. One of the commonly used platforms is Google Meet, due to convenient features such as affordability, accessibility and ease of use (Jain & Jain, 2021). However, not much research focuses on the use of this platform from students' perspective (Diaz-Nunez et al., 2021; Septantiningtyas et al., 2021).

However, it is not enough to merely use a platform, the educators also need to know students' perception of the platform being used. This research was conducted specifically for this purpose, to examine university students' acceptance of Google Meet as a learning platform. There are numerous choices of models and theories that could be used for this purpose, all of which are tested and proven in explaining the use of technology in various sectors including higher education (Jain & Jain, 2021; Sharma & Mishra, 2014). Despite the numerous technology acceptance models, UTAUT was chosen as the foundation for this research, mainly due to the fact that it is one of the well-accepted models which had been tested in various settings (Yee & Abdullah, 2021; Williams et al., 2015; Venkatesh et al., 2003). UTAUT is able to explain how various factors such as performance expectancy (PE), effort expectancy (EE), social influence (SI) and facilitating conditions (FC) affect peoples' tendency to adapt and use technology. Upon considerable review of existing literature, it was found that more research is needed to explore the use of Google Meet in the higher education

setting. This research aims to identify the most important factor perceived by students to influence their use of Google Meet in education.

II. LITERATURE REVIEW

A. Google Meet as Educational Platform

The use of digital tools for teaching and learning has been a must during this pandemic. Usage of videoconferencing platforms such as Google Meet, Zoom and Webex have been prioritized, especially due to their screen sharing, uploading files and synchronous learning features (Diaz-Nunez et al., 2021). Google Meet has become a suitable choice for teaching and learning in higher education as the platform offers features such as the ability to have more than 100 people in a class session (depending on the activated plan) as well as the ability to record the class session for future views (Minina & Mabrouk, 2019). Other than that, the platform can also be integrated with Google Calendar where class sessions can be scheduled, and the connection links can be sent earlier to the students. In addition, the security features enable educators as the meeting host to have better control of their online classes, as they can choose to admit or deny participants in their class as well as muting or deleting participants. At this point, many lecturers around the world had adapted the Google Meet platform for their teaching and learning use. This was supported by the research done by Diaz-Nunez et al., (2021) who found that many lecturers had mastered the use of the platform due to its frequent use in teaching and learning.

However, things are more interesting from the students' perspective, as different researchers had discovered different students' responses on Google Meet as a learning platform. For instance, research done in Spain by Diaz-Nunez et al., (2021) had reflected a positive perception of Google Meet as 86% of the students surveyed claimed the platform had helped them increase their academic performance.

However, another research done in the same country by Roig-Vila et al., (2021) found that students had shown a low degree of satisfaction despite the use of Google Meet to convey synchronous and audiovisual class communication. Despite admitting the positive aspects and usefulness, the students experience difficulties when using Google Meet. Such findings raise questions on students' actual perception, especially in the Malaysian higher education setting. Even though research by Septantiningtyas et al., (2021) proved that Google Meet had successfully increased higher education students' interest in learning, another research could be done for closer examination on the use of the platform from the UTAUT perspective.
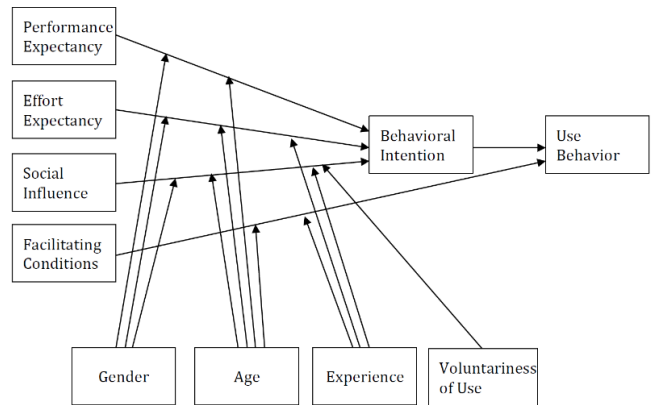

Fig 1. Unified Theory of Acceptance and Use of Technology (UTAUT) by Venkatesh et al., (2003).

B. Acceptance and Use of Technology

User acceptance of new technology can be considered as one of the most mature research areas (Sharma & Mishra, 2014). There are numerous technology acceptance theories available, but this research will only use several constructs from UTAUT by Venkatesh et al., (2003), as shown in Figure 1. The main purpose of UTAUT is to explain the factors affecting users' intention to use a certain technology. There are seven constructs in this model, but according to Venkatesh et al., (2003), only four constructs play significant role as direct determinants of user acceptance, namely performance expectancy (PE), effort expectancy (EE), social influence (SI) and facilitating conditions (FC). For the purpose of this study, only these four constructs were chosen to see which is the most important in influencing students' intention to use Google Meet.

III. RESEARCH METHODOLOGY

A. Research Design

Since the quantitative approach serves to identify factors that influence an outcome (Creswell, 2009), it is the best-suited approach for this research that seeks to measure factors that influence Google Meet acceptance among students. This research will examine the four constructs from the UTAUT model (performance expectancy (PE), effort expectancy (EE), social influence (SI) and facilitating conditions (FC)) to see how they influence students' acceptance of Google Meet. In this preliminary study, focus will be given on the mean value and standard deviation of the aforementioned constructs, based on the students' perception.

B. Respondents

The respondents are 108 students from a Malaysian public university. They were chosen from the population using purposive sampling, as only students with experience in using Google Meet in education were selected. A questionnaire was given to the

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respondents, which was constructed based on the UTAUT constructs.

C. Data Collection

Quantitative data was obtained from a questionnaire adopted from Venkatesh et al., (2003), focusing mainly on the four UTAUT constructs. Minor changes were made on the questionnaire to suit this research purpose of examining students' acceptance of the Google Meet platform. Likert scales (1—5) are used for the UTAUT items, ranging from "strongly disagree" to "strongly agree". The questionnaire consists of six sections, as shown in Table 1 below:

Table 1: Questionnaire items based on UTAUT constructs

Section	Item
Demographic information	Gender
	Age
Performance Expectancy (PE)	Using Google Meet would improve my learning performance.
	Using mobile learning increases my chances of learning things that are important to me.
	Using Google Meet would allow me to accomplish learning tasks more quickly.
	Using Google Meet would enhance my effectiveness in learning.
Effort Expectancy (EE)	Learning how to use Google Meet is easy for me.
	My interaction with Google Meet platform is clear and understandable.
	I think it is easy to use Google Meet.
	It is easy for me to become skilful in using Google Meet.
Social Influence (SI)	People who are important to me think that I should use Google Meet.
	I think it will give a good impression to my parents and lecturers if I use Google Meet for learning.
	The lecturers have been helpful in the use of Google Meet platform.
	In general, my institution has supported the use of Google Meet.
Facilitating Conditions (FC)	I have the gadgets necessary to use Google Meet.
	I have the knowledge necessary to use Google Meet.
	Google Meet is not compatible with the systems I use.
	I can get guidance and help from my lecturers if I have difficulties using Google Meet.
Intention to Use	I think I will use Google Meet in the next 12 months.
	I am not certain I will use Google Meet again in the next 12 months.
	I am planning to use Google Meet in the next 12 months.
	I am willing to recommend the use of Google Meet to people around me.

IV. RESULTS AND DISCUSSION

According to Table 2 below, the most important factor perceived by students is effort expectancy (M = 3.95, SD = 0.75). This is followed by social influence (M = 4.18, SD = 0.69), facilitating conditions (M = 4.01, SD = 0.53) and performance expectancy (M = 3.95, SD = 0.75). Higher mean for effort expectancy constructs

indicate that many students perceive Google Meet as relatively easy to understand and use.

Table 2: Mean value and standard deviation according to factors

Item under Effort Expectancy Construct	Sample (N)	Mean	Std. Deviation
Performance Expectancy (PE)	108	3.95	0.75
Effort Expectancy (EE)	108	4.32	0.73
Social Influence (SI)	108	4.18	0.69
Facilitating Conditions (FC)	108	4.01	0.53

A. Most influencing factor perceived by students

For a more detailed look at the effort expectancy construct, Table 3 below lists down the mean values and standard deviation for all four items. It could be clearly seen that most of the students agreed that it is easy to use Google Meet (M = 4.54, SD = 0.68) and even without prior experience, it is also easy to learn how to use the platform (M = 4.42, SD = 0.8). They also agreed that it is easy to become skillful (M = 4.21, SD = 0.89) and interact using Google Meet platform (M = 4.1, SD = 0.95).

Table 3: Mean value and standard deviation for Effort Expectancy construct

Item under Effort Expectancy Construct	Sample (N)	Mean	Std. Deviation
Learning how to use Google Meet is easy for me.	108	4.54	0.68
My interaction with Google Meet platform is clear and understandable.	108	4.1	0.95
I think it is easy to use Google Meet.	108	4.42	0.8
It is easy for me to become skillful in using Google Meet.	108	4.21	0.89

From this finding, it could be said that the degree of ease associated with the use of Google Meet is the most important factor perceived by university students to influence their use of the platform in education. This finding tallies with findings by Fuady et al., (2021) who found that students considered Google Meet as among the easiest to use compared to other learning management systems. We could generalize from this finding that students are more likely to use a platform that they can easily use and master. Thus, it is suggested for educators to put effort expectancy (EE) into consideration when implementing any new technology in classrooms.

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B. Least influencing factor perceived by students

1. On the contrary, performance expectancy (PE) is perceived as the least influencing factor that influences their use of the platform. This factor is associated with their belief that the use of Google Meet could help them perform better academically, as shown in Table 4:

Table 4: Mean value and standard deviation for Performance Expectancy construct

Item under Performance Expectancy Construct	Sample (N)	Mean	Std. Deviation
Using Google Meet would improve my learning performance.	108	4.03	0.85
Using mobile learning increases my chances of learning things that are important to me.	108	4.03	0.75
Using Google Meet would allow me to accomplish learning tasks more quickly.	108	3.94	0.93
Using Google Meet would enhance my effectiveness in learning.	108	3.8	0.92

From this finding, it could be said that most students are not really confident that the use of Google Meet could improve their learning effectiveness. Interestingly, other research also shares this finding, that despite its usefulness, Google Meet is not perceived as the most useful learning platform by students (Fuady et al., 2021). One suggestion to overcome this issue is not to rely entirely on Google Meet when conducting online classes. Considering performance expectancy (PE) as the least influencing factor in this research, educators should also integrate additional software and application during online classes, to help students accomplish their learning tasks more effectively and enhance their understanding of lesson content.

V. CONCLUSION

In conclusion, findings from this preliminary study show that effort expectancy (EE) is the most important factor that influences students' use of Google Meet platform. On the contrary, performance expectancy (PE) is considered as the least important factor by the students. So, these findings confirm that Google Meet is considered by students as an easy-to-use classroom technology. However, educators should not rely entirely on the platform during online learning. Instead, there is also a need to leverage on other additional applications to further improve the learning experience and effectiveness.

The use of learning platforms including Google Meet in higher education could definitely bring great impact to students. It is suggested for future works to examine in more detail the influence of UTAUT moderators such as age, gender, experience and voluntariness of use to see whether they play any roles in determining students' acceptance of Google Meet. In addition, further research could be done to compare the acceptance of different videoconferencing platforms such as Zoom and Webex. Another suggestion is to expand the sample size, since the analysis in this research might not be a very accurate representation of the population. With a larger sample, the results would be more precise, and the findings are more likely to replicate in another sample.

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