

## **The Acceptance of Google Meet as a Platform for Virtual Learning among Undergraduate Students**

Sharifah Syakila Bt Syed Shaharuddin\*  
sharifahsyakila@uitm.edu.my  
Akademi Pengajian Bahasa  
UiTM Kedah, Malaysia

Nurhafeza Binti Mohd Akhir  
nurhafeza@uitm.edu.my  
Akademi Pengajian Bahasa  
UiTM Shah Alam, Malaysia

Sharifah Sharmaine binti Syed Shaharuddin  
u2005020@siswa.um.edu.my  
Faculty of Languages and Linguistics  
Universiti Malaya, Malaysia

Mohamad Hanif Abu Hassan  
hanifab@uitm.edu.my  
Faculty of Business and Management  
UiTM Kedah, Malaysia

Corresponding author\*

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### **ABSTRACT**

As the Coronavirus pandemic (COVID-19) caused a global lockdown for two years from the year 2019, most institutions utilized virtual platforms to continue teaching and learning as effectively as possible. One of the most common virtual platforms used was Google Meet; an online medium to conduct mass video calls for presentations, meetings, events etc. However, it seems that perceptions tend to be given more attention rather than the acceptance of this virtual platform by students. This research aims to understand students' acceptance towards the use of Google Meet in higher education by using the Unified Theory of Acceptance and Use of Technology (UTAUT) model. This research method used a questionnaire that was distributed to 50 students from

Universiti Teknologi MARA (UiTM). The result analyzed showed Effort Expectancy (EE) was the most important factor as the students find it easy to access and utilize Google Meet and Performance Expectancy (PE) was perceived as the least important factor. All in all, lecturers should use all types of medium in order to make online and offline learning easier and most effective to their students.

**Keywords:** Google Meet, UTAUT, quantitative, COVID-19, virtual learning, acceptance

## INTRODUCTION

### *Google Meet in The Classroom*

Teachers and lecturers frequently use lectures to increase students' knowledge and learning results. Lecturing requires real-time two-way communication between educators and students. The aim of lectures is so that the transfer of knowledge and objectives of the class can be achieved successfully (Barreyro et al., 2019). There are numerous benefits of lecturing. Firstly, it offers the educator control in learning and identifying shortcomings in the form of assertive students. Educators are also regarded as the dominant speaker (Paris, 2012). Additionally, lecturing also shows managing classes with many students, as an advantage (Stearns, 2017) and enhance the ability of the instructor to directly participate in the delivery process of the learning environment (Van Der Steen et al., 2017).

In the era of industrial revolution 4.0 (Industry 4.0), the education sector has been one of many that has received an impact. New information and knowledge are spread widely and is accessible by anyone. Educators have adopted and adapt this information in the classroom so that the learning aims can be achieved (Shukla & Raghuwansh, 2019; Willett et al., 2019; Hamilton et al., 2020). Through novel interactive techniques, different information and experience are achieved (Borges & Mello-Carpes, 2015). Building student learning outcomes and skills is one of the duties of schools (Mercer, 2016). Applications that have been chosen by educators and students are used by students to study at home. The Google Meet application has taken the place of the learning room component, which was formerly a classroom in the educational setting. It is an interactive and alternate form of media used for online learning. Students are supposed to benefit from interactive learning in terms of knowledge development and learning outcomes.

### *COVID-19 and the Education System*

The COVID-19 epidemic has significantly disrupted the educational system in schools and colleges in addition to having an impact on the health and medical systems. It has demonstrated its influence on more than 1 billion students in all parts of the world, according to the United Nations. The United Nations Children's Fund (UNICEF) has reported that, the youth in most Asian nations, especially students who were in closed (whole or in part) institutions, faced a socioeconomic impact due to COVID-19. Similar to other nations, the United States has implemented a variety of technological tools that can help colleges and universities deal with the COVID-19's effects on education. In Malaysia, schools were suspended on 18 March 2020, preventing five million students from continuing their studies. The Ministry of Education

established a national online teaching and learning platform to make sure students were not withheld from learning. The national platform has done a tremendous job at keeping the Malaysian students learning during school and college closures and these platforms will continue to play a significant role after gradual school reopening that started in June 2020 as part of the country's approach of blending physical and online classes. Additionally, UiTM has been conducting online classes by widely using Google Meet.

Therefore, this study aims to unravel students' acceptance towards the Google Meet platform when learning online. According to Maheswari (2021), the students' willingness to use online learning is an important input for educational institutions. Additionally, there are limited studies that focus on the impact of Google Meet in regard to the students' acceptance towards it (Al-Marouf et al., 2021). Thus, this paper intends to understand the students' acceptance towards the use of Google Meet in higher education, specifically in UiTM, by utilizing the Unified Theory of Acceptance and Use of Technology (UTAUT) model.

## LITERATURE REVIEW

### *Past Studies*

Research into fear and acceptance of technology has kept a lot of researchers busy, especially in the wake of the coronavirus pandemic. Recent research has examined the issues of fear and technology in different community sectors around the world from different perspectives. Most studies were conducted in 2020, during the lockdown period, when COVID-19 reached its peak. With this, many studies were able to reveal all possible solutions in different aspects.

In terms of higher education, the studies were conducted to serve different purposes in their respective countries. For instance, a study in India was conducted to investigate the feelings of fear, anxiousness, and overall cognition during the lockdown period, where teachers used different online techniques. The study found that anxiety, fear, and consciousness were increased during COVID-19. However, using online platforms to communicate helped to decrease the bad consequences of those emotions (Shenoy et al., 2020). As stated by Pal and Vanijja (2020), the study has shed light on a completely different aspect, in the education field: the perceived usability, from the students' perspective, of certain online learning platforms. They reached the conclusion that the high perception of usability leads to the adoption of certain online platforms during the COVID-19 period. According to this study, the ease-of-use construct within Technology Acceptance model (TAM) has increased the level of usability among students.

Other scholars have focused on different perspectives, such as focusing on the students' perceived satisfaction. In this study, they reached the conclusion that a personal perspective has no direct influence on perceived satisfaction. According to Shenoy et al. (2020), the accessibility of the online educational platform, which has a great impact on users' perception during the pandemic in China is the most important factor. Whereas in Poland, studies have shown that fear towards COVID-19 has shown positive impact on the mode of teaching. Even though previous studies have focused on technology adoption or acceptance during the spread of COVID-19 within the educational sector, it seems that there is no sufficient evidence to the impact of this technology towards students' acceptance especially in the usage of Google Meet as a communicational and

teaching platform and its effectiveness in the educational sector. Additionally, most studies use the TAM model rather than the UTAUT model which is a refined model that is used in this current study.

## THEORETICAL FRAMEWORK

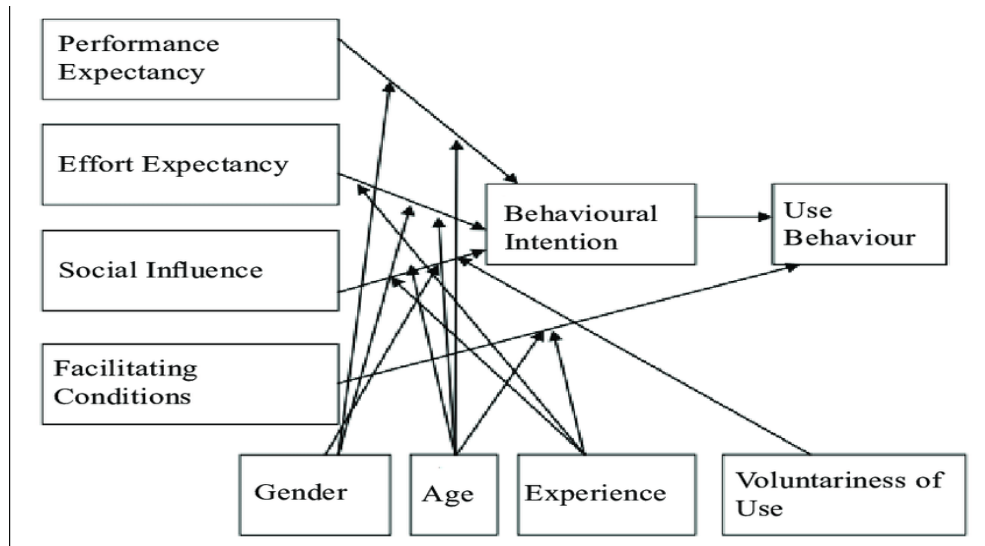


Figure 1. The UTAUT Model (Venkatesh et al., 2003)

In 2003, eight theories were established to understand new technology better. Venkatesh and his team studied eight different theories: Technology Acceptance Model (TAM), Theory of Planned Behavior (TPB), Theory of Reasoned Action (TRA), Model of PC Utilization (MPCU), Innovation Diffusion Theory (IDT), Motivational Model (MM), and Social Cognitive Theory (SCT) are some of the theories that have been proposed. From these theories, Venkatesh developed a new theory, the Unified Theory of Acceptance and Application of Technology (UTAUT) that takes all the theories into account.

The UTAUT model was designed to have three direct effects on behavioral intention: performance expectancy, effort expectancy, and social influence. The goal of use and facilitating factors have an impact on consumption behavior in addition to the two main drivers mentioned before. Figure 1 shows the UTAUT model together with its determinants and moderating variables. The four moderating variables shown in Figure 1 are considered to limit the impact of the four fundamental drivers on behavioral intention and usage behavior. These relationships can be distilled from the study work of Venkatesh et al. (2003) as follows:

1. Effort expectancy impacts behavioral intention and is tempered by factors such as gender, age, and experience, having a higher impact on young women and older individuals with less experience.
2. Performance expectancy impacts behavioral intention and is moderated by gender, age, and experience, with a stronger effect from younger men.
3. Social influence impacts behavioral intention and is moderated by all the moderating variables, with a stronger effect from senior workers.

4. Facilitating conditions construct does not have an influence on behavior intention, whereas it influences the behavior of usage that moderated by age and experience, with a stronger effect from senior workers, particularly with increased experience.

## **METHODOLOGY**

### *Research Design*

This study used a quantitative research approach in order to examine the acceptance of Google Meet as a platform for virtual learning among undergraduate students. According to Creswell (2009), quantitative approach helps to identify factors that influence an outcome which can be considered as the best approach for this study. This study was carried out using an adapted questionnaire consisting of close-ended questions, as suggested by Creswell (2009).

### *Research Participants*

The respondents of this study were 50 undergraduate students from various faculties, Universiti Teknologi Mara (UiTM). They were chosen using purposive sampling, as only students with experience in using Google Meet in teaching and learning were selected. A questionnaire was given to each respondent which was constructed based on UTAUT model.

### *Research instruments*

The questionnaire used in this research was adapted from Venkatesh et al. (2003) to explore the acceptance of Google Meet as a platform for virtual learning among undergraduate students.

There were four major constructs from the UTAUT model i) performance expectancy (PE), ii) effort expectancy (EE), iii) social influence (SI) and iv) facilitating conditions (FC) to see how they influence students' acceptance of Google Meet. There were 16 items altogether. Participants' responses were in the form of five-point Likert-scale ranging from 1- Strongly Disagree, 2- Disagree, 3- Satisfied, 4- Agree to 5- Strongly Agree. The reliability of the questionnaire was measured using Cronbach's alpha coefficient for each construct, revealing acceptable reliability  $\alpha = 0.85$

### *Data collection and analysis procedure*

Quantitative data was collected from a questionnaire adapted from Venkatesh et al. (2003). In order to suit the research purpose of examining the acceptance of Google Meet as a platform for virtual learning among undergraduate students, minor changes were made to the questionnaire. The results were then computed using statistical data analysis (SPSS). Mean and standard deviation were used to explore the acceptance of Google Meet as a platform for virtual learning among undergraduate students. The questionnaire consists of five sections, as shown in Table 1 below:

Table 1.  
 Questionnaire items based on UTAUT constructs

Demographic information	Gender
	Age
Performance Expectancy (PE)	Using Google Meet would improve my learning performance.
	Using Google Meet increases the quality of academic services.
	Using Google Meet enables me to accomplish learning tasks more quickly.
	I would find Google Meet is useful in my learning.
Effort Expectancy (EE)	Learning how to use Google Meet is easy.
	I think it is easy to use Google Meet.
	I find Google Meet is interactive.
	It is easy for me to become skillful in using Google Meet.
Social Influence (SI)	People who are imperative 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.
	I would use Google Meet if my classmates used them.
	In general, my institution has supported the use of Google Meet.
Facilitating Conditions (FC)	I have the gadgets necessary to use Google Meet.
	Using Google Meet fits into my learning style.
	Google Meet is compatible with the systems I use.
	I can get guidance and help from my lecturers if I have difficulties using Google Meet.

## FINDINGS

Table 2.  
 Mean value and standard deviation according to factors

	Sample (N)	Mean	Std. Deviation
Performance expectancy (PE)	50	15.3	1.80
Effort Expectancy (EE)	50	17.1	1.32
Social influence (SI)	50	16.3	1.26
Facilitating Conditions (FC)	50	15.9	1.68

According to Table 2 above, the most important factor perceived by students is effort expectancy ( $M = 17.1$ ,  $SD = 1.32$ ). This is followed by social influence ( $M = 16.3$ ,  $SD = 1.26$ ), facilitating conditions ( $M = 15.9$ ,  $SD = 1.68$ ) and performance expectancy ( $M = 15.3$ ,  $SD = 1.80$ ). Higher mean for effort expectancy suggests that most students recognize Google Meet as easy to understand and use platform.

*A. Most influencing factor perceived by students.*

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.	50	4.32	0.51
My interaction with Google Meet platform is clear and understandable.	50	3.92	0.78
I think it is easy to use Google Meet.	50	4.56	0.50

To explain further, Table 3 lists down the mean values and standard deviation for all four items in facilitating conditions. It is seen that most of the students agreed that it is easy to use Google Meet ( $M = 4.56$ ,  $SD = 0.50$ ). Not only that, they agreed that it is also easy to learn how to use Google Meet ( $M = 4.32$ ,  $SD = 0.51$ ) and it is easy for them to become skillful when using the platform ( $M = 4.32$ ,  $SD = 0.47$ ). The students also agreed that their interaction with Google Meet platform is clear and understandable ( $M = 3.92$ ,  $SD = 0.78$ ). From this finding, it could be said that the expectancy construct in the use of Google Meet is the most important factor perceived by university students to influence their use of the platform in education. This result is consistent with that of Muhamad Aiman and Rofiza (2022), who discovered that effort expectation (EE) was the primary variable affecting students' utilisation of Google Meet. We may draw the conclusion that most students thought Google Meet was a simple-to-use classroom technology based on this data.

*B. The least influencing factor perceived by students.*

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	50	3.58	0.76
Using Google Meet increases the quality of academic services.	50	3.70	0.76
Using Google Meet enables me to accomplish learning tasks more quickly	50	3.76	0.74
I would find Google Meet is useful in my learning.	50	4.30	0.68

On the other hand, performance expectancy (PE) is perceived as the least influencing factor that influences their use of the platform. As we can see in Table 4, most students agreed that Google Meet is useful in their learning ( $M = 4.30$ ,  $SD = 0.68$ ) followed by using Google Meet enables them to accomplish learning tasks more quickly ( $M = 3.76$ ,  $SD = 0.74$ ) and using Google Meet increases the quality of academic services ( $M = 3.70$ ,  $SD = 0.76$ ). The least agreeable is using Google Meet would improve their learning performance ( $M = 3.58$ ,  $SD = 0.76$ ). Based on this finding, it can be said that most students do not think the use of Google Meet could help them perform better academically. This result is consistent with findings by Muhamad Aiman and Rofiza (2022) who found that performance expectancy was the least influencing factor perceived by students.

## CONCLUSIONS AND DISCUSSIONS

This empirical study affirmed that students are influenced by how simple it is to use Google Meet, which is influenced by the resources available, such as the internet, assistance from others when having problems, and the devices utilised. Based on the findings, Effort Expectancy (EE) was the most important factor that showed students find it easy and clear when using Google Meet. The usefulness and convenience of use during the learning process are substantially impacted by this factor.

Unfortunately, the least influencing factor was Performance Expectancy (PE) where students believe that using Google Meet may improve the speed of their tasks however the least agreeable finding was Google Meet could improve their learning performance. Therefore, students do find it easy to use Google Meet but does not feel that it has impacted their life academically.

This study is meant to educate both educators and students on the acceptance of conducting online lectures through Google Meet. It enables teachers to assess the success of the Google Meet platform they use to deliver their lessons. Thus, it challenges lecturers and teachers to find other online learning method or other application that can improve the students' life academically. The results obtained in the study also can inform lecturers about how they should provide the best method in teaching and improve their teachings in the classroom either it is online or offline.

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### **Conflict of Interest**

We certify that the article is the researcher's original work. The article has not received prior publication and is not under consideration for publication elsewhere. This study has not been submitted for publication nor has it been published in whole or in part elsewhere. We testify to the fact that all authors have contributed significantly to the work for submission to the Journal of Creative Practices in Language Learning and Teaching (CPLT).

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### About the Authors

	<p>Sharifah Syakila is a lecturer at the Academy of Language Studies, UiTM Kedah. Previously she taught English at a secondary school in Malaysia and is still actively organising activities and programmes for primary and secondary school students until today. Her PhD research involves analysing the language of leadership among student leaders.</p>
	<p>Nurhafaesa is currently working as a lecturer at Universiti Teknologi Mara (UiTM), Shah Alam. She is also pursuing her Doctor of Philosophy in TESL (Teaching English as a Second Language) at Universiti Pendidikan Sultan Idris. Her area of expertise is SLA.</p>
	<p>Sharifah Sharmaine is an English Language and Linguistics undergraduate student from Universiti Malaya. Previously was in the Teaching English Language as a Second Language (TESL) foundation programme in Universiti Teknologi MARA.</p>
	<p>Dr. Mohamad Hanif Abu Hassan is a Senior Lecturer at the Faculty of Business and Management, Universiti Teknologi MARA, Kedah Branch. He obtained a Doctor of Philosophy (Islamic Finance) from Universiti Sains Malaysia (USM) with a Study of Determinants of Repayment Behaviour in Islamic Microfinancing: The Case of Rural Economy Funding Scheme. His research interests include microcredit, finance, banking, green finance, and sustainability. He can be contacted via email at <a href="mailto:hanifab@uitm.edu.my">hanifab@uitm.edu.my</a></p>