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# THE FACTORS INFLUENCING THE ACTUAL USE OF MOBILE LEARNING AMONG STUDENTS IN MALAYSIAN UNIVERSITY

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**Abstract:**

The education system has experienced major change since COVID-19, moving away from traditional learning methods and toward non-traditional solutions. Mobile learning is one of the most innovative methods of education that has emerged as a result of the widespread accessibility of information networks and ongoing technological advancement. This denotes the launch of an unconventional educational platform that makes use of mobile technologies to promote thorough knowledge gain and interactive learning. Students may show resistance to adopting mobile learning despite governmental efforts through its policy and benefits linked with educational technologies in learning. This hesitance is indicated by the conflicting findings present in the existing literature. The question of whether students possess favourable attitudes towards mobile learning remains an ongoing challenge to study. Hence, to illustrate thorough explanations regarding challenges related to the actual usage of mobile learning, the study intends to investigate the influence of perceived trust, perceived usefulness, perceived usability, perceived facilities, and perceived social influence of mobile learning. The study adopts these five (5) independent variables to test the dependent variable namely the actual use of mobile learning and treatment of the behaviour intention derived from the aforementioned five (5) independent variables. To fully illustrate, the study proposes a comprehensive framework for implementing mobile learning in public universities. The findings of the research offer practical advice on how to evaluate and improve the quality of mobile learning platforms and comprehend diverse factors for the effective use of mobile learning platforms.

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**Keywords:**

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## Introduction

Our lives are increasingly dependent on technology. We need to admit that technology helps us with various daily routines and accelerates our tasks despite its challenges, particularly in technology's ownership issue. No one can dispute the advantages of adopting technology in all spheres of life, whether private or public. Education is one of the fields impacted by technological advancement. Because of the proliferation of information networks and technical advancements, new methods of learning have emerged, like the method of learning by mobile phone. According to Basurra & Bamansoor (2021), the concept of mobile learning technology has been described in a variety of ways, and the concept itself has been given several names such as m-learning, personalized learning, e-learning, learning while on the go, ubiquitous learning, at any time and anywhere, as well as portable learning. Many benefits can be gained from implementing m-learning. Among these benefits included wireless communication between students with their lecturers on the other hand (Abu-Al-Aish & Love, 2013). Students can access educational resources, share ideas with others, and actively participate in a collaborative learning environment with the assistance of mobile learning. Additionally, it assists them in receiving evaluations, comments, and guidance from teachers (Sabah, 2016). Nowadays, universities have started using mobile learning in education and learning processes. A great influence has been seen in mobile telecommunication built on wireless technologies (Althunibat 2015). In the field of higher education, m-learning for both teachers and students provides many chances and challenges. In terms of academics, m-learning helps them give information anytime, anywhere. On the student's side, it increases students' independence by using online learning resources (Al-Emran et al. 2016). This study attempts to study mobile learning in Malaysian public universities based on the following research objectives; to examine perceived trust, perceived usefulness, perceived usability, perceived facilities, and perceived social influence. These objectives are put forward to examine and study its influence on behavioural intentions which later significantly impact the actual use of mobile learning among students in Malaysian public universities. Finally, the study proposes a conceptual framework that helps the author to structure the research properly despite mentioning reasonable factors that influence the actual use of mobile learning among students in Malaysian public universities.

## Literature Review

Eight (8) key factors will be put forward in the literature review which includes the discussion of past studies related to mobile learning, perceived trust, perceived usefulness, perceived usability, perceived facilities, perceived social influence, and a brief introduction about the conceptual framework used in the study. Martin and Ertzberger (2013) defined mobile learning as a method of learning that is enabled when learners have access to information anytime and anywhere through mobile technologies, allowing them to participate inauthentic activities while learning. Meanwhile, Yousafzai et al. (2016) defined m-learning as a learning process where fixed locations do not restrain learners and can benefit from access to learning materials through mobile devices. Nowadays universities have started using mobile learning in education and learning processes. Mobile learning, as one of the technological initiatives, has demonstrated many promising benefits in the field of higher education. It has contributed to

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providing an educational environment that is not constrained by time and space thus raising the efficiency and effectiveness of learning (Senaratne et al. 2019). M-learning is not limited to the use of text, pictures, and movies, but extends to communication between students and teachers using mobile devices. M-learning shows effective results in terms of grade improvement, private cost reduction, time management, and student attitude toward learning. The reason for this may be due to the possibility of using multimedia (Park et al. 2012). Moreover, m-learning contributes to supporting students with special needs and enables them to attend lectures remotely with the help of mobile devices (Buabeng-Andoh, 2020). The value of trust in the mobile learning concept can have an impact on how the learners interact in the mobile environment. It may influence how individuals express themselves or create a new self. Besides, the identity of the instructors has changed by transforming the role from a facilitator to a member of the learning community who is part of the reciprocal exchange of knowledge. Other than that, the medium for delivery and the pedagogy for learning is changed by technology. The perceived usefulness of m-learning products can help individual students understand how they can benefit from campus-produced learning materials. The perceptions of users on the usefulness of e-learning products can help improve the quality of these products for students. According to Surendran (2013), perceived usefulness is an assessment of a person's expectations of a technology based on his or her personal experience. He said that a person's perception of a technology's usefulness can be influenced by factors such as the quality of work and the confidence that the user has in the system. The perceived usability of a system is often defined as the degree to which people believe that it would be effortless to use (Davis, 1989). It is believed that when people associate technology with being easy to use, they think of it as something useful. Psychologist Davis (1989) noted that the perceived usability and the usefulness of a system influence the user's attitude toward adopting a technology. The perceived usability of a system is often defined as the degree to which people believe that it would be effortless to use. On the other hand, the perceived usefulness of a system is often defined as the degree to which people think that it would help them perform better at their jobs. According to Jegede (2005), mobile learning facilities can be defined as the presentation and delivery of lessons using electronic media such as the web, internet, or other multimedia facilities such as a computer, projector, television, audio and audio-visual cassette, and radio disc. Mobile learning makes use of a variety of technologies, some of which were designed particularly for it, while others only supplemented the method of learning. These technologies include communication tools that are extensively used in teaching and learning, such as email and instant messaging, as well as forums and social network applications that any internet user would utilize. Mobile learning in education relates to the use of modern telecommunications instruments and internet communication tools such as a computer, scanner, printer, internet, intranet, e-mail, video phone system, teleconferencing devices, Wireless Application Protocols (WAP), radio, satellites, computer, and projector in teaching and learning as well as curriculum implementation. The possession of these facilities needs to be highlighted in this research as it is one of the challenges in implementing mobile learning techniques among university students. Every stakeholder especially their respective institution needs to be able to provide adequate, conducive, and comprehensive mobile learning facilities before regulating the mobile learning method. This is important for students to excel in their studies and receive the same quality as they got from conventional classroom learning techniques. According to Zhao et al. (2020), social influence can be regarded as institutional support for users to evoke a social exchange perspective in which users feel obligated to provide the organization with improved input through extra roles such as innovative conduct. The same can be said about the intentions of students to use new technology in their studies. Previous research has also shown that

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institutional support can be a precursor to usefulness and usability, as indicated in the preceding paragraph. Management support has been shown to influence technological acceptance. Legal, moral, and financial responsibilities are common characteristics of institutional assistance. This is one of the most significant requirements in implementing mobile learning techniques since users, especially students, demand extensive support from their educational institution. In all scenarios that arise as a result of mobile learning deployment, institutional support can be viewed as the supporter and financial obligation for providing suitable tools or a platform for mobile learning is just as crucial as legal support. One of the importance of institutional support can be seen when any technical issue is derived due to mobile learning implementation. The availability of technical support services assists with immediate troubleshooting, resulting in a rapid and considerable enhance student's trust in adopting this learning technique. Regulations of institutional assistance greatly aid students in their information system utilization, resulting in an increase of knowledge and expertise, as well as the resulting clarity on the use and value of the system, resulting in a positive acceptance and perception. Apart from that, institutional support is vital in mitigating any circumstances that arise due to mobile learning regulations. For example, if there is any incident related to cyberbullying, inappropriate or triggering content sharing, illegal website usage, or intellectual property infringement, universities can provide adequate support in resolving these issues. Every field including education has started to integrate its learning and teaching methods with technology, hence, the aforementioned issues shall not be neglected. This can enhance student's confidence and acceptance of mobile learning and this will directly influence student's behavioural intentions which then positively impact their actual use of mobile learning. For this research, numerous articles and journals have been examined. The following conceptual framework is suggested considering the data and information gathered and discussion from the preceding part.

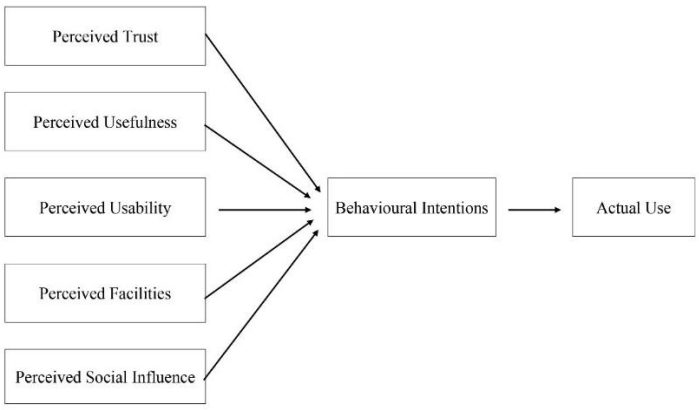


**Figure 1: The Conceptual Framework**

### *Definition of Mobile Learning*

Mobile learning highlights the capacity to adapt conventional classroom teaching and learning procedures without attention to location-related variables that influence the learning process (Samad, 2021). In simpler words, mobile learning refers to a teaching and learning approach in which students and lecturers are not required to be in one area at the same time. They may carry out their learning session anywhere, which is one of the most crucial characteristics of mobile learning. Samad (2021) also distinguished mobile learning from electronic learning (or e-learning). The primary distinction between these two approaches is mobility. He argued that e-learning necessitates students remaining in one location where they may connect to a Local Area Network (LAN) to receive the teaching material. Meanwhile, mobile learning allows

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students to access their learning materials whenever and wherever they want, and it is a more personalized learning strategy than electronic learning. According to Mikhailova et al. (2021), mobile learning characteristics must be properly organized and incorporate practical learning activities. Lecturers need to plan the learning that will be implemented in the daily teaching plan before the teaching and learning session begins. To achieve the desired learning outcomes in teaching and learning, the compatibility of the mobile devices employed as well as the learning material should be highlighted. These factors compel the study to investigate the usefulness and usability of predicting behavioural intentions toward actual mobile learning use. The survey is expected to provide an overall outlook and contribute to practical solutions for minimizing mobile learning challenges among Malaysian public university students. Mikhailova et al. (2021) also suggested that students must have an active role in all stages of learning, from goal formulation to final assessment. The role of students includes accessing information when needed, taking part actively in their learning, comprehending their learning style, sharing information with their peers, conducting shared research, and conducting self-assessments and other group assessments. These roles are critical in overcoming the constraints of mobile learning approaches and directly influence their academic performance. As a result, the behavioural intentions towards the actual use of mobile learning may be positively interrelated as the influencing factors namely perceived usefulness and perceived usability have been assisted. In Malaysia, the development of mobile applications for mobile learning is still in the infant stages when compared to other countries (Samad, 2021). Nonetheless, local researchers are becoming more intrigued in investigating the potential benefits of these applications for strengthening teaching and learning quality. Apart from that, mobile learning lessons in primary and secondary schools should be established to speed up the learning process to improve mobile learning among students and lecturers. Students will be better prepared with these learning styles when they reach tertiary education. However, to effectively recognize and implement this method of learning, policymakers and universities must take an active part in developing long-term mobile learning regulations. According to Mohamad et al. (2012), an improvement in legislation regarding the use of mobile learning methods incorporated with teaching and learning in universities will aid in implementing this method. According to the study, existing ineffective policies make it difficult to deploy mobile learning and only with policy changes, mobile learning can become more practical in the Malaysian education system.

***Perceived Trust***

Mayer et al. (1995) define trust as the readiness of an individual to be subjected to the actions of another party based on the expectation that the other party will perform a specific action essential to them, regardless of the ability to monitor or influence the actions of the other party. He also claimed that to successfully investigate trust perceptions, there must be some actual benefits at stake, and individuals or groups that are dependent on the actions of the other party must be aware of the risk involved. Hence, to properly illustrate the variable of perceived trust in this study, the author proposed that perceived trust refers to the willingness of the students to be subjected and adaptable to the application of mobile learning while being aware of the benefits and risks associated with this learning method. Personal space, data privacy, and integrity are among the main elements that contribute to perceived trust in behavioural intentions, which later influence the actual use of mobile learning. The study recommended investigating these concerns that develop among students while applying mobile learning methods since we believe that personal space, data protection, and integrity can influence the intentions to implement mobile learning. The consistency of the respondents underscores the importance of perceived trust, which can assist institutions in providing answers for integrating

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the real use of mobile learning methods in their teaching and learning systems. Furthermore, in this study, perceived trust can be interpreted as students' reliance on a tool, device, method, system, or attitude when using the technique as a whole (Ibrahim & Walid, 2014). The decision to integrate is determined by the relationship formed between the student and the system or technology directly. The student's experience with technology determines trust in technology, which is influenced by the influencing elements. In simpler words, trust in mobile learning adoption is determined by the student's experience with the method which is illustrated by the minimization of avoidable risks.

***Perceived Usefulness***

Davis (1989) defines perceived usefulness as the degree to which a person perceives that utilizing a given system will enhance their ability to perform. He also stated that perceived usefulness can be described as when people decide whether to use an application because they believe it will help them accomplish their work better. This is consistent with the idea of being useful, which is "capable of being utilized advantageously". Mobile learning is believed to assist students, and one of the most significant benefits of mobile learning is its accessibility and adaptability. Students utilizing mobile learning can access educational content and participate in learning activities at any time and from any location. This allows students to accommodate studying into their busy schedule, no matter how frantic it is. Students can also study at their own pace within their own space using mobile learning, taking as much or as little time as they need to incorporate the content. Apart from that, Mobile learning can also increase involvement since it offers a more dynamic and individualized learning environment. Mobile learning, with elements such as gamification, simulations, and interactive multimedia, can keep students passionate and motivated. This can lead to higher retention of knowledge and a more engaging educational experience. Mobile learning can also be less expensive than traditional classroom-based education. Mobile learning may save universities and companies money by replacing the need for physical classrooms, instructors, and resources. Furthermore, the cost of mobile devices keeps on decreasing fall, making mobile learning a more accessible choice. Ultimately, mobile learning offers students several benefits such as convenience and flexibility, enhanced engagement, broadened accessibility, cost-effectiveness, and greater cooperation. With the continuous advancement of mobile technology, mobile learning is projected to play a growing role in education as well as professional development.

***Perceived Usability***

According to Davis (1989), perceived ease of use or usability (noun) can be defined as the degree to which a person believes that using a given technology within the framework of an organization would be free of difficulty. The purpose of this concept is to demonstrate how an approach can make work faster and more efficient. It accomplishes this by enhancing productivity and decreasing the amount of effort necessary to execute the task. According to Kumar and Mohite (2017), usability is the clarity with which software technology may be used and the inclusion of a user-friendly interface. The decision to embrace the technology is influenced by how much users believe the system is usable and will boost work performance. The Technology Acceptance Model (TAM) states that usability, or ease of use, is a primary predictor of technology acceptance. The key argument advanced in this study is the simplicity of mobile learning applications. The authors wish to find out if students can fully utilize the method of mobile learning platforms and comprehend their complexity, which later can influence their behavioural intentions towards the actual use of mobile learning. The study suggests that users are impacted by their prior experience with interfaces, implying that a more

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familiar design promotes greater participation and familiarization. However, the first impression of the interface remains unaltered by experience and is more dependent on the student's subjective view. Students are more inclined to use interfaces that are attractive or engaging to them, resulting in a more positive learning experience. Aside from that, the author aims to investigate the usability of mobile learning tool's compatibility on various devices and operating systems. This aspect is critical since it directly influences whether the mobile learning approach is superior to the traditional classroom learning method, as claimed.

***Perceived Facilities***

Universities provide a wide range of modern facilities to their students in traditional learning settings, such as lecture halls, libraries, and laboratories, to ensure that students have a comfortable learning environment. Online databases, e-journals, digital libraries, and other modern university resources are available. An online library comprised of various modern publications can be established to ensure these services are also available in mobile learning environments. An open chat room for students and faculty members during scheduled classes can be a complement to the lecture hall (Bin-Noor et al., 2021). Universities should also offer internet access and subscriptions to mobile educational tools such as Microsoft Teams, Google Classroom, and Turnitin software. He also claimed that mobile learning is a method of electronic learning (e-learning) that makes use of mobile devices. In other words, mobile learning refers to the mobility of learning, which may be defined in several ways, including portability of the device, mobility of the student, and accessibility of the service. Mobile learning, as compared to desktop electronic learning, has the advantages of mobility and its enabling platform, which can be described as omnipresent, localized, and personalized. A country must have a robust telecommunications system, a strong and affordable internet connection, Wi-Fi technology, and competent teams to develop educational materials and resources to fully deploy mobile learning. Similarly, the study observed that a correctly designed and structured content management system allows students to browse and interact with course information effectively. However, access to mobile learning can also be hampered by issues such as a consistent supply of electricity, the high cost of hardware and maintenance, students' negative attitudes toward Information and Communication Technology (ICT), the lack of availability of mobile learning software, and instructors' unwillingness to incorporate mobile learning methods as a new way of teaching. These concepts provide the variable of perceived facilities to investigate students' behavioural intentions toward mobile learning.

***Perceived Social Influence***

According to Faisal et al. (2018), social influence towards mobile learning is the degree to which an individual perceives others believe they should adopt the new technology. Nassuora (2012) defines social influence as "perceived social pressure to perform or not perform a given behaviour". The more positive subjective norm for the action, the greater an individual's intention to engage in the conduct. The adoption of mobile learning systems is encouraged by social influence through favourable impacts from lecturers, family, friends, and other users. Hence, incorporating social influence in the research framework is appropriate. The study aimed to identify additional structural social aspects that influence students' behavioural intentions toward mobile learning adoption. Faisal et al. (2018) also stated that social influence is important in increasing student's willingness to adopt mobile learning technologies. Students who have a higher proportion of their close associates who possess mobile devices are more likely to engage with a mobile learning system, suggesting that students tend to become connected in their use of mobile learning. According to the data provided by Faisal et al. (2018),

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there is a favourable association between social influence and intention to use mobile learning. This suggests that social influence has a direct impact on student's behavioural intentions to employ mobile learning approaches for their learning activities. He also emphasized that if lecturers encourage their students to use mobile learning methods, both directly and indirectly, the student's tendency to use such systems would be increased, which will transform into students supporting or encouraging their classmates to use the method. This is because the more students are impacted by their peers and lecturers, the greater influence they have over their learning activities, and the approach's effectiveness can be increased as more individuals are incorporated into the method. As a result, students' willingness to use mobile learning tools will increase significantly.

***Behavioural Intentions***

According to Mtebe and Raisamo (2014), behavioural intentions to utilize a certain technology have a considerable influence on utilization patterns. An individual's behavioural intentions to use technology are closely tied to their attitude toward technology. This is because their drive to do things using this system is influenced by their level of interest in using it (Davis, 1989).

***Actual Use***

Joo et al. (2014) indicate that a high level of performance anticipation is associated with a high intention to use mobile learning services. By moderating the intention of use, it was established that the factors had considerable indirect influence on actual use. It was also established that actual use was directly impacted by the purpose of use. Nonetheless, the results of the current study showed that the intention to use mobile learning services was not significantly impacted by effort expectations, social influence, or facilitation factors. First, there is a connection between mobile learning and mobile self-efficacy in using mobile learning services. That is, the intention of students to use mobile learning services was highly influenced by their perceptions of their competence and self-confidence when utilizing mobile devices. Additionally, it seems that performance expectations raised the need for mobile learning, and mobile learning services linked to e-learning enhanced learning results, cut down on time and expenses, and raised learning efficacy and efficiency. To fully illustrate the relation between these concepts of mobile learning, this study investigates the nature and scope of the link between various possible factors that contribute to the actual use with the mediator which is assumed to bridge and derive the actual use towards mobile learning adoption among Malaysian public university students.

**Summary of Findings**

The study shows that the usefulness of a given development can explain the link between behavioural intention and technological adoption (Liu et al., 2009). According to Suki (2011), the influence of perceived usefulness on behavioural intention is positive and significant. Apart from that, Tan et al. (2012) discovered that student's perceptions of improved learning efficiency as a result of mobile applications boost the likelihood of their adoption of m-learning in their educational activities. Perceived Usability (PUA1 to PUA6) refers to the degree to which an individual perceives that using a mobile learning system is convenient. Following data analysis, perceived usability was found to favourably influence behavioural intentions. This conclusion is consistent with what was previously addressed in the literature review. Students found the mobile learning system to be clear and understandable, and using it does not involve a lot of physical effort. This means that students will be more likely to utilize mobile as a learning tool if they believe the tools are basic and straightforward to use. Behavioural

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intentions of an actual mobile learning utilization also include the student's perceived usability or ease of use in mobile learning tools, platforms, or applications. Perceived usability involves student's mobility in mobile learning (Paul et al., 2022). It has not been well accommodated, since developers occasionally disregard the reality that users are inclined to interact with such equipment when on the move. While developing compact, portable devices, difficulties such as tiny display sizes, limited connection, high power usage rates, and limited input and output modalities arise. Mobile learning makes use of personal computers, mobile cell phones, and other devices with similar characteristics, but it is still in development in terms of technological advances and methodologies, while it is constantly evolving. Most developers fail to address the fact that customers desire to utilize these device applications everywhere and at any time, hence reducing their mobility. Apart from that, the question regarding mobile learning tools compatibility commonly arises due to various kinds of operating systems, which may lead to unsupported formats and system failure. These issues are among the obstacles which constantly pointed out by the students in embracing the mobile learning technique and this also can be proved by the data collected from the quantitative survey. Apart from the mobility characteristic of mobile learning, the simplicity of use in its application features also contributes to behavioural intention to use mobile learning techniques. Google Classroom, Microsoft Teams, and Quizlet are some of the most popular mobile learning tools or applications. These tools are equipped with outstanding characteristics to improve user experiences, such as system smoothness, compatibility, and user-friendliness. These features are essential for any beginning or intermediate user who wants to apply mobile learning techniques without jeopardizing their study performance or the quality of the material. Any flaws in such an application can significantly impair the user's ability to be efficient, effective, and productive. These difficulties may reduce behavioural intention to employ mobile learning techniques in their study. The concept of usability assessment guarantees that the developer understands the indicators that provide basic users with exceeding standards of usability by providing them with the ability and tools to measure the quality of the intermediate deliverables provided by the mobile learning applications, and thus predict the quality of their academic performance. While we believe that institutional support is important for all students, one study conducted by Lionarakis et al. (2018) warns that while some students are open to supporting services, others are not, and thus, a future challenge for mobile learning providers is to design not only the relevant services that can be made available to students when support is needed but also to prevent students from getting it independently. As a result, on an individual level, support services should provide diagnostic testing for demands, academic skills (both content-related and technical), and continuing psychological assistance personalized to the study duration that students are experiencing. All activities linked to offering support to students, according to Sharma (2002), are related to learning, interaction, and effective communication. As a result, institutional support should include concerns ranging from classroom instruction and counselling to resolving management issues in the student's everyday tasks. The nature and operations of student support services are determined by the various demands of students, the organization's principles, and the allocation of resources and institutional assets. The student support system should help to create a setting that promotes mobile learning by encouraging students to maintain their studies, boosting student social abilities, and motivating students to work in groups. These five features, ranging from the perceived trust, perceived usefulness, perceived usability, perceived facility, and perceived social impact, have a considerable influence on behavioural intentions toward the actual use of mobile learning techniques. Technology is developing at an overwhelming pace in modern times, and educational institutions have to catch up. The behaviour of students, lecturers, and parents regarding mobile

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learning should be studied to accomplish digital-supported learning at universities. However, in this research, the author intends to focus on students' behaviour as they are the first level and the biggest group affected by mobile learning qualities and techniques. Technology is allowing an infinite number of beneficial alternatives for academics. Understanding the elements that drive mobile learning utilization is vital for academic performance. It has been discovered that students' behavioural intentions have a big impact on the actual use to employ mobile learning techniques in their studies. This study presents a model for determining university students' willingness to use mobile learning strategies in their studies. For analysis of perceived usefulness and perceived usability (ease of use), the Technology Acceptance Model (TAM) was used. The proposed model adequately explains two independent variables, perceived usefulness, and perceived usability, in terms of behavioural intentions toward real mobile learning adoption. Meanwhile, for other variables, the quantitative survey method with the assistance of Statistical Package for the Social Sciences (SPSS) through reliable data analysis proved its relationship with behavioural intentions that acted as a mediator to influence the actual utilization of mobile learning among targeted students. The study discovered that educational institutions must sustain students' positive behavioural intentions toward mobile learning strategies since it is one of the most important elements in predicting students' actual use. According to the findings of this study, students' attitudes were highly influenced by perceived usefulness and perceived usability, as well as additional variables such as perceived trust, perceived facilities, and perceived social influence. Based on such linkages, we argue that the quality of the mobile learning system is critical for ensuring the long-term usage of mobile learning during unprecedented times such as the pandemic era and beyond. As a result, educational institutions must preserve and improve the system's quality without jeopardizing students' academic achievement by demonstrating that mobile learning is as effective as conventional learning.

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**References**

Abdallah, N., Abdallah, O., & Bohra, O. M. (2021). Factors affecting mobile learning acceptance in higher education: An empirical study. *International Journal of Advanced Computer Science and Applications*, *12*(4), 664-671.

Abu-Al-Aish, A., & Love, S. (2013). Factors influencing students' acceptance of m-learning: An investigation in higher education. *International Review of Research in Open and Distributed Learning*, *14*(5), 82-107.

Al-Emran, M., Arpaci, I., & Salloum, S. A. (2020). An empirical examination of continuous intention to use m-learning: An integrated model. *Education and information technologies*, *25*(4), 2899-2918.

Journal of Information System and Technology Management
JISTM
EISSN: 0128-1666
**Volume 8 Issue 33 (December 2023) PP. 199-210**
**DOI: 10.35631/JISTM.833015**

Alfadda, H. A., & Mahdi, H. S. (2021). Measuring students' use of Zoom application in language courses based on the technology acceptance model (TAM). *Journal of Psycholinguistic Research*, *50*(4), 883-900.

AlHamad, A. Q. M. (2020). Predicting the intention to use Mobile learning: A hybrid SEM-machine learning approach. *International Journal of Engineering Research & Technology*, *9*(3), 275-282.

Almaiah, M. A., & Alismaiel, O. A. (2019). Examination of factors influencing the use of mobile learning system: An empirical study. *Education and Information Technologies*, *24*(1), 885-909.

Alsaleh, D. A., Elliott, M. T., Fu, F. Q., & Thakur, R. (2019). Cross-cultural differences in the adoption of social media. *Journal of Research in Interactive Marketing*.

Alsswey, A., & Al-Samarraie, H. (2020). Elderly users' acceptance of mHealth user interface (UI) design-based culture: the moderator role of age. *Journal on multimodal user interfaces*, *14*(1), 49-59.

Altawallbeh, M., Soon, F., Thiam, W., & Alshourah, S. (2015). Mediating Role of Attitude, Subjective Norm and Perceived Behavioural Control in the Relationships between Their Respective Salient Beliefs and Behavioural Intention to Adopt E-Learning among Instructors in Jordanian Universities. *Journal of Education and Practice*, *6*(11), 152-159.

Andri, A. (2022). Analysis of factors affecting the use of Google Classroom to support lectures. *Analysis of Factors Affecting the Use of Google Classroom to Support Lectures*.

Ansong-Gyimah, K. (2020). Students' Perceptions and Continuous Intention to Use E-Learning Systems: The Case of Google Classroom. *International Journal of Emerging Technologies in Learning (iJET)*, *15*(11), 236-244.

Babin, B. J., & Svensson, G. (2012). Structural equation modeling in social science research: Issues of validity and reliability in the research process. *European Business Review*.

Buabeng-Andoh, C., & Baah, C. (2020). Pre-service teachers' intention to use learning management system: an integration of UTAUT and TAM. *Interactive Technology and Smart Education*.

Chang, C. C., Tseng, K. H., Chou, P. N., & Chen, Y. H. (2011). Reliability and validity of Web-based portfolio peer assessment: A case study for a senior high school's students taking a computer course. *Computers & Education*, *57*(1), 1306-1316.

Chau, P. Y., & Hu, P. J. H. (2001). Information technology acceptance by individual professionals: A model comparison approach. *Decision sciences*, *32*(4), 699-719.

Chen, X., Liu, J., Han, J., & Xu, H. (2010, April). Primary exploration of mobile learning mode under a cloud computing environment. In *2010 International Conference on E-Health Networking Digital Ecosystems and Technologies (EDT)* (Vol. 2, pp. 484-487). IEEE.

Darmansyah, D., Fianto, B. A., Hendratmi, A., & Aziz, P. F. (2020). Factors determining behavioral intentions to use Islamic financial technology: Three competing models. *Journal of Islamic Marketing*, *12*(4), 794-812.

Fauzi, A., Wandira, R., Sepri, D., & Hafid, A. (2021). Exploring students' acceptance of Google Classroom during the COVID-19 pandemic by using the technology acceptance model in West Sumatera Universities. *Electronic Journal of e-Learning*, *19*(4), pp233-240.

Guerrero, F. N. T. (2019). Aceptación de los estudiantes universitarios en el uso de los sistemas e-learning Moodle desde la perspectiva del modelo TAM. //Acceptance of university students in the use of Moodle e-learning systems from the perspective of the TAM model. *Revista Ciencia UNEMI*, *12*(29), 63-76.

Journal of Information System and Technology Management
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Hamidi, H., & Chavoshi, A. (2018). Analysis of the essential factors for the adoption of mobile learning in higher education: A case study of students of the University of Technology. *Telematics and Informatics*, *35*(4), 1053-1070.

Jegede, O.J. (2005). Evolving a national policy on distance education. An agenda for implementation today,5(1).

Lionarakis, A., Apostolidou, A., Hartofylaka, A.-M., & Niari, M. (2018). Individual and Institutional Support in ODL: How the Macro may Benefit from the Micro. *Exploring the Micro, Meso, and Macro*. https://doi.org/10.38069/edenconf-2018-ac-0007

Oluwajana, D., Adeshola, I., & Clement, S. (2021). Does the use of a web-based collaborative platform reduce cognitive load and influence project-based student engagement? *Current Psychology*, 1-14.

Paul, A., Atuhe, A., Victor, T., & Framework, A. (2022b). A framework for evaluating the usability of mobile learning applications in universities. ResearchGate. https://doi.org/10.46243/jst.2022.v7.i05.pp42

Purwandani, I., & Syamsiah, N. O. (2020). Analisa Penerimaan dan Penggunaan Teknologi Google Classroom Dengan Technology Acceptance Model (TAM). *Jurnal Riset Teknologi dan Inovasi Pendidikan (Jartika)*, *3*(2), 247-255.

Purwanto, E., & Tannady, H. (2020). The factors affecting intention to use Google Meet amid online meeting platforms competition in Indonesia. *Technology Reports of Kansai University*, *62*(06), 2829-2838.

Qashou, A. (2021). Influencing factors in M-learning adoption in higher education. *Education and information technologies*, *26*(2), 1755-1785.

Sun, Y., & Gao, F. (2020). An investigation of the influence of intrinsic motivation on students' intention to use mobile devices in language learning. *Educational Technology Research and Development*, *68*(3), 1181-1198.

Unal, E., & Uzun, A. M. (2021). Understanding university students' behavioral intention to use Edmodo through the lens of an extended technology acceptance model. *British Journal of Educational Technology*, *52*(2), 619-637.

UNIZIK Journal of STM Education. (n.d.-b). https://journals.unizik.edu.ng/index.php/jstme

Zhao, F., Ahmed, F., Iqbal, M. K., Mughal, M. F., Qin, Y., Faraz, N. A., & Hunt, V. J. (2020). Shaping behaviors through institutional support in British higher educational institutions: Focusing on employees for sustainable technological change. *Frontiers in Psychology*, 11. https://doi.org/10.3389/fpsyg.2020.584857