Jurnal EVOLUSI

THE FACTORS INFLUENCING THE ACTUAL USE OF MOBILE LEARNING AMONG STUDENTS IN MALAYSIAN PUBLIC UNIVERSITIES

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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.

1.0 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 mobile 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.

2.0 LITERATURE REVIEW

2.1 Mobile Learning (m-learning)

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 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).

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.

2.2 Perceived of Trust

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.

2.3 Perceived Usefulness & Usability

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.

2.4 Perceived Facilities

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.

2.5 Perceived Social Influence

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 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.
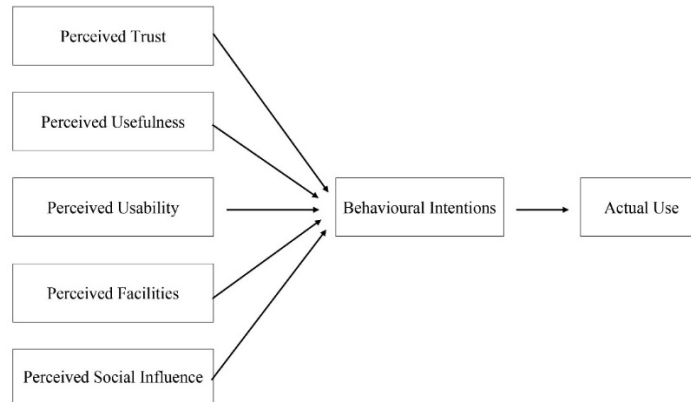

Figure 1: The Conceptual Framework

3.0 METHODOLOGY

The data analysis software employed in this study is IBM SPSS Version 25.0. IBM SPSS Statistics 25.0 is an advanced statistical software platform. It features an easy-to-use interface and an extensive set of functions that allow researchers to swiftly extract useful information from the raw data. Advanced statistical processes aid in decision-making accuracy and quality. From data preparation and management to analysis and reporting, all aspects of the analytics aspects are covered. IBM SPSS Version 25.0 was used to perform descriptive statistical analysis such as frequency, percentage, mean, and standard deviation.

The inferential statistical analysis that assesses perceived trust, perceived usefulness, perceived usability, perceived facilities, perceived social influence, behavioral intention, and actual use was performed using SmartPLS Version 4.0. It was also used to examine the role of behavioral intention as a mediator between independent variables and actual mobile learning adoption. The Smart PLS 4.0 was used to test the structural model's reliability, validity, and model hypothesis. Structural Equation Modeling (SEM) is a sort of research that can assist researchers in understanding how theories fit in the real world (Babin and Svensson, 2012). Tohidi, Seyedaliakbar, and Mandegari (2012) combine SEM's multiple factor and regression analysis capabilities with fitness metrics to examine complicated models. A measurement model and a follow-up analysis are employed in a two-stage procedure to analyze and test the hypotheses and research model. The model's validity and reliability are verified in the first stage.

The subsequent analysis involves determining the various measurement model parameters. The linear and variable relationships between the constructs are examples of these (Chen, 2010). The purpose of this study is to investigate the validity and reliability of reflective constructs. The SmartPLS application will capitalize on the use of these constructs. During the second stage of the research model's development, the structural model is evaluated. Several tests are run to determine the model's path coefficient's relevance and significance in the study hypotheses.

4.0 FINDINGS AND DISCUSSION

The study emphasizes the pivotal role of perceived usefulness and perceived usability in influencing students' behavioral intentions toward the actual utilization of mobile learning techniques. According to Liu et al. (2009), the perceived

usefulness of development plays a crucial role in explaining the connection between behavioral intention and technological adoption. Suki (2011) supports this by stating that the influence of perceived usefulness on behavioral intention is consistently positive and significant.

Tan et al. (2012) contribute to this understanding by highlighting that students' perceptions of improved learning efficiency through mobile applications enhance the likelihood of their adoption of mobile learning in educational activities. The study finds that perceived usability, specifically the convenience of using a mobile learning system, positively influences behavioral intentions, aligning with existing literature.

Perceived usability encompasses students' perceptions of the ease of use of mobile learning systems, platforms, or applications. The analysis affirms that students found the mobile learning system clear, understandable, and involving minimal physical effort. This simplicity in use contributes to the likelihood of students adopting mobile learning tools in their studies.

The study acknowledges challenges related to mobile learning, including issues of mobility, compatibility, and system failure due to different operating systems. Students express concerns about unsupported formats and compatibility problems. These challenges pose obstacles to embracing mobile learning techniques, as reflected in the quantitative survey data.

In addition to mobility, the study underscores the importance of simplicity in application features for influencing behavioral intentions. Popular mobile learning tools like Google Classroom, Microsoft Teams, and Quizlet are identified for their outstanding characteristics, including system smoothness, compatibility, and user-friendliness. Flaws in these applications can significantly impede user efficiency, effectiveness, and productivity, diminishing behavioral intentions to use mobile learning techniques.

The study recognizes the need for institutional support to address varying student preferences. While some students are open to support services, others are not. Lionarakis et al. (2018) caution that future challenges for mobile learning providers include designing relevant services and preventing students from seeking support independently. Support services, therefore, should offer diagnostic testing for demands, academic skills, and psychological assistance tailored to the study duration.

The research establishes perceived trust, perceived usefulness, perceived usability, perceived facility, and perceived social impact as crucial factors influencing behavioral intentions toward the actual use of mobile learning techniques. These factors collectively contribute to shaping students' attitudes and behaviors regarding mobile learning.

In conclusion, the study advocates for sustained positive behavioral intentions toward mobile learning strategies, emphasizing the importance of perceived trust, usefulness, usability, facility, and social impact. The quality of the mobile learning system is deemed critical for long-term usage, and educational institutions must demonstrate its effectiveness compared to traditional learning methods. This understanding becomes especially relevant during unprecedented times, such as the pandemic era and beyond, where technology plays a central role in academic continuity.

CONCLUSION

As elaborated in the findings and discussion, we can briefly conclude that students have a positive attitude towards the mobile learning method compared to the conventional method. However, the facilities should be adequate to ensure the learning outcomes will not be jeopardized and students receive the same amount of study quality.

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