Technology Acceptance Model for Resistance Implementation Mobile Learning in Higher education

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Abstract

Currently, the development of mobile technology-based applications is increasing because more and more people are using smartphones to support almost all their activities. One of the popular systems using mobile technology is mobile learning in higher education. There are many advantages of mobile learning in higher education, but there are problems related to the implementation of mobile learning in higher education, namely the rejection of stakeholders who use mobile learning in higher education. The purpose of this research is to build an extended model of TAM for the implementation of mobile learning in higher education. The result of this research is the TAM model for mobile learning in higher education.

Keywords
M-Learning, TAM, Higher Education

1. Introduction

Over the last decade, mobile learning has made from a slight ongoing research to a collection of major projects in colleges, work spaces, galleries, cities, and rural areas around the world. Each project demonstrated how mobile technology can provide new learning opportunities that extend beyond the traditional teacher-led classroom. However, the projects' diversity makes it difficult to embody the spirit of mobile learning or demonstrate how it adds value to education. Mobile learning has huge benefits, particularly in higher education, even though college students are normally people with high movement, necessitating a learning system that is appropriate for their circumstances. Some many major differences among m-learning and e-learning resulted in the repudiation of m-learning application, particularly in higher education (Kim et al. 2017). Thus, a solution is needed so that all mobile learning stakeholders support the implementation of mobile learning. This research aims to help universities increase the effectiveness of e-learning implementation with an acceptance model technology approach. The result of this research is an extended model from TAM to support the implementation of mobile learning in universities.

2. Literature Review

Mobile Technology
The mobile phone is widely regarded as first truly desktop PC. It integrates mobility and public persona with connectivity and data capabilities. Than other computers or laptops, mobile phones are usually carried with the user at all times. It very seldom differentiates from its owner and is always in use or prepared for use. Users form close bonds with their portable devices (Alavi et al. 2018). Of course, those who use them for utilitarian purposes, but they are also increasingly being used as personal gestures of their personalities. As technology pervades more aspects of users' lives, expectations about provider functionality collide with actual results. Users' interactions with technology are contradictory (Ostom et al.2021). The positive and negative effects of mobile technology are abstractly inseparable, and their strength grows with each new edition. New handset and provider function models are constantly launching innovative capabilities and continuous improvement in certain dimensions (Lee and Lee 2020).

However, new tools frequently have a negative impact on user experience in other dimensions. Recently released mobile phone that includes a high-resolution camcorder, a credit card scanner, voice recognition, Television and video display, constructed Trans Flash memory, and other additional features. "The trouble is, all of these characteristics saddle the poor little gadget with a complexity that will befuddle even the most seasoned cell fan," Pogue concludes. It takes eight directional buttons just to look up your own phone number." (Liang et al. 2019)

Mobile Learning and E-Learning
E-learning is popularly used in educational institutions and communities by using different technologies and approaches (Inayatulloh 2020) (Inayatulloh 2021). Current perspectives on mobile learning generally fall into the following four broad categories:
First, technocentric. This perspective dominates the literature. Here mobile learning is viewed as learning using a mobile device, such as a PDA, mobile phone, iPod, PlayStation Portable etc(Grant 2019). Second, relationship to e-learning. This perspective characterises mobile learning as an extension of e- learning. These definitions are often are all-inclusive and do not help in characterising the unique nature of mobile learning. What is needed is clarity, the technocentric/e-learning based definitions only seek to place "mobile learning somewhere on e- learning's spectrum of portability"(Kumar et al. 2018). Third , augmenting formal education. In the mobile learning literature, formal education is often characterised as face-to-face teaching, or more specifically, as a stereotypical lecture. However, it is not at all clear that this perspective is wholly correct. Forms of distance education (for example, distance correspondence) have existed for over 100 year, leading to the questions regarding the place of mobile learning in relation to all forms of "traditional" learning, not only the classroom(Pombo and Marques 2019).

Learner-centred. A strong linage of research into conceptualising mobile learning is traceable, the concept of mobile learning was strongly linked to the device and the potential for enabling lifelong learning . However, it soon became clear that rather than the device, the focus should be on the mobility of the learner. This led to considering mobile learning from the learner's perspective, and to the definition that: "Any sort of learning that happens when the learner is not at a fixed, predetermined location, or learning that happens when the learner takes advantage of learning opportunities offered by mobile technologies"(Blaschke et al. 2021).

3. Research Methods

Figure 1 describes the research step; The first step is to identify the problem of m-learning in higher education. After going through the process of observing the implementation of mobile learning, it was found that there was a problem with rejecting the use of mobile learning. the next stage is to analyze the reasons for the rejection of mobile learning by some users of mobile learning in higher education. After finding the cause of refusal to use mobile learning in HE, the final step offers a solution to the problem by using the Technology Acceptance Model approach.
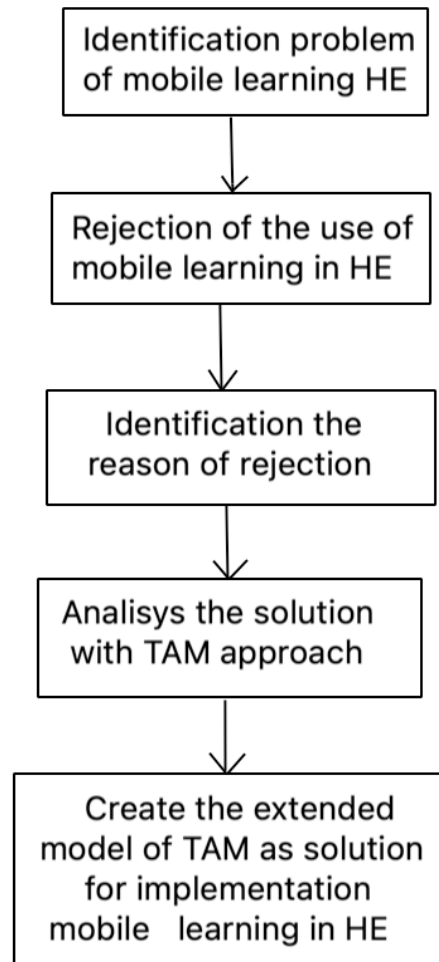
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│  Identification problem  │
│   of mobile learning HE  │
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│   Rejection of the use of│
│   mobile learning in HE  │
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┌─────────────────────────┐
│    Identification the    │
│    reason of rejection   │
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│    Analisys the solution │
│     with TAM approach    │
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│    Create the extended   │
│   model of TAM as solution│
│     for implementation   │
│    mobile   learning in HE│
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Figure 1. Research Method

4. Results and Discussion

The reason for the rejection by some users of mobile learning is the low effectiveness of the learning process through mobile technology. This problem is solved by selecting certain features that require mobile activities so that the mobile learning function supports the learning process. So not all features or functionality of e-learning are migrated to mobile learning. The next factor is that the functionality of mobile learning is not as expected so that users are not comfortable using mobile learning. All the above activities are carried out at the stage of socializing the advantages of mobile learning and training in the use of mobile learning. Both processes will provide knowledge to those who reject mobile learning so that they understand the benefits of mobile learning. The simulation training process for using mobile learning will provide convenience to mobile learning users. After all these stages have been passed, the next step is to use mobile learning officially to support learning activities at HE
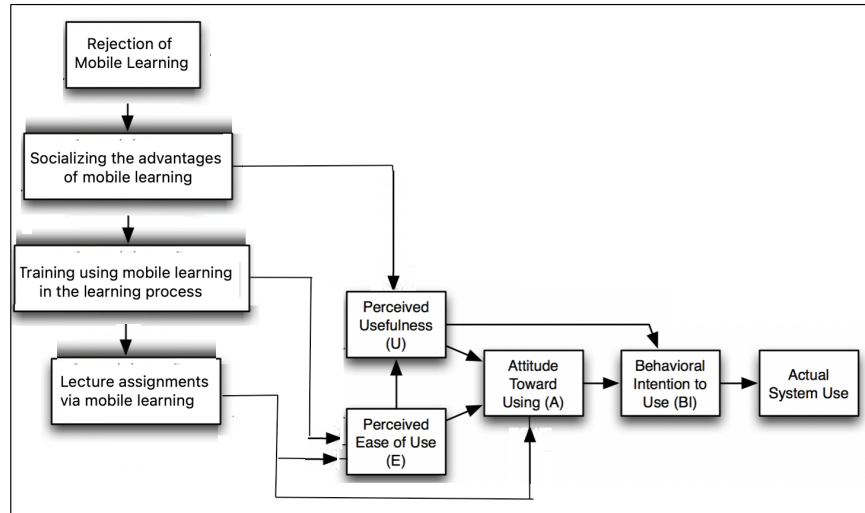

Figure 2. Extended TAM for Mobile learning HE Hybrid

5. Conclusion

The Technology Acceptance Model approach to reduce rejection by some people towards mobile learning is the right approach. By socializing the benefits of mobile learning to people who refuse m-learning, it will provide an opportunity to increase their knowledge of m-learning. The mobile learning training process with simulation is an effort so that users know how easy it is to use e-learning. In the end, the institution must use its authority so that all parties use e-learning so that the learning process can run optimally.

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Biographies

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