STUDENT’S PERCEIVED USEFULNESS TOWARDS M-LEARNING AMONG STUDENTS OF FACULTY EDUCATIONAL STUDIES, UPM

Jazihan Mahat  
UNITAR International University  
jazihan@unitar.my

Ahmad Fauzi Mohd Ayub  
Universiti Putra Malaysia

Wong Su Luan  
Universiti Putra Malaysia

ABSTRACT

M-Learning holds a great potential to shift traditional learning into a new paradigm of learning. This paper will focus on examining the students’ perceived usefulness towards M-Learning among students of Faculty Educational Studies, Universiti Putra Malaysia (UPM). This study was based on survey using a set of questionnaire. A pilot test has been carried out among 47 students with the reliability for variable was found over .70. A total of 210 students were selected as a sample of this study based on the random sampling. The finding of this research indicates that Malaysian students have a positive perceived usefulness towards M-Learning.

Keywords: Perceived usefulness, M-Learning.

INTRODUCTION

Various innovations have been developed by the Institution of Higher Learning to boost up the students’ learning. However, these innovations were more focused on the use of computer-based and Internet. M-Learning is an innovation in teaching and learning with the capability to transfer the knowledge without time and place constraint. M-Learning has become a benchmark in modern education where the role of the mobile device has expanded beyond mere communication. Mobile phone is beginning to make inroads into revolutionizing teaching and learning since it is a relatively small device and easily carried around (Ismail, Gunasegaran, Koh & Idrus, 2010).

M-Learning as an educational activity makes sense only when the technology in use is fully mobile and when the users of the technology are also mobile while they learn (El-Hussein & Cronje, 2010). Triantafillou, Georgiadou and Economides (2008) found that having a test using the mobile device is effective and efficient because it saved time, compared to a pen and paper test. As being defined by Traxler (2005), M-Learning is “any educational provision where the sole or dominant technology is the handheld or palmtop device.” Students in the digital era prefer a flexible learning environment where they can learn any time and at any place. Nevertheless, it’s important to highlight that purpose of M-Learning is not to replace the traditional way of teaching but to enhance students’ learning experience. M-Learning offers usefulness in teaching and learning process. For instance, Dong and Agogino (2004) point out that M-Learning is most useful when it links real-world situations to relevant information resources.
Perceived usefulness was initially being measured in Technology Acceptance Model (TAM) by Davis, Bagozzi and Warshaw (1989). Perceived usefulness played a critical factor to examine the acceptance of new technology, Davis (1989) defines perceived usefulness as “the degree to which a person believes that using a particular system would enhance his or her job performance.” Perceived usefulness is individual’s opinion about level of system’s usability (Casas, 2010) and a major determinant in predicting behavioral intentions. Perceived usefulness is not only important in the adaptation of information systems and computers (Venkatesh & Davis, 2000; Venkatesh & Morris, 2000), but also acted as an important factor affecting in adaptation of mobile internet (Chiu, Lin & Tang, 2006), website-based learning (Motaghia, Hassanzadeh & Moghadam, 2013), blogs (Lai & Chen, 2011) and online banking (Hanafizadeh, Behboudi, Koshksaray, & Tabar, 2012).

Various studies have been conducted to identify the influence of perceived usefulness in adoption of technology. For example, study conducted by Lu and Viehland (2008) to identify the individuals' factors influencing the adoption of M-Learning. An analysis of the 180 respondents indicated 84% of respondents agreed that M-Learning is useful in improving the collaboration between classmates for group assignments. Over 70% of respondents believe that M-Learning can enhance the learning process and 56% believe that M-Learning can improve their performance grade. Thus, it can be concluded that the respondents found that implementation of M-Learning is useful. In addition, Ramli, Ismail and Idrus (2010) conducted studies on the acceptance of the M-Learning via short messaging system (SMS) among 105 distance students at Universiti Sains Malaysia. Respondents agreed that learning through SMS is effective in helping their learning. The study also found that students need support in their learning and SMS is very useful for that purpose.

Besides that, Liu, Li and Carlsson (2010) using TAM as a research framework has proposed a hypothesized model of M-Learning usage. The study involved a sample of 230 undergraduate students at Zhejiang Normal University in China. The results showed that the perceived usefulness significantly influenced the behavior intention to use M-Learning. They analyzes the data using Structural Equation Modeling analysis (SEM) found that the perceived usefulness of the long-term is the most influential predictor of M-Learning adoption.

Apart from this, Lai and Chen (2011) conducted a study to determine factors that influence the teachers’ decision to use blog for teaching. This study has been carried out in Taiwan involving 325 teachers. Data analysis showed that the perceived usefulness influence the decision to use a blog-based teaching. A survey conducted by Chong (2013) to study the factors that influence the behavior intention to adopt m-commerce by the user. SEM analysis using the 376 respondents found that the perceived usefulness indicates a significant influence on behavior intention of the consumer to use m-commerce. Interestingly, the study also found that the perceived usefulness is the best predictor of adopting m-commerce.

Based on previous studies carried out, clearly shows that perceived usefulness has been widely used in the technology adoption studies. The influence of perceived usefulness in adopting M-Learning has also been shown by previous studies (Lu & Viehland, 2008; Ramli et al., 2010). This demonstrates the perceived usefulness is one of the critical factors in the context of technology adoption. Thus, perceived usefulness towards M-Learning has been selected in this study.

**Objective**

The main objective of this study was to gauge the perceived usefulness towards M-Learning among university students. This study would also employ descriptive analysis of
the students’ perceived usefulness toward M-Learning in a sample of higher education students.

Methodology

This study was carried out at Faculty of Educational Studies, Universiti Putra Malaysia involving 210 trainee teachers. In this study, M-Learning refers to the use of Short Messaging Service (SMS) as a medium of communication between the students and their lecturers during their 14 weeks of study (one semester). For this purpose, we used a portal for sending Bulk SMS to the trainee teachers. Each of them received an SMS related to their studies. The contents of the SMS included announcements, information related to their courses, words of motivation, and quizzes. For the quiz questions, the respondents were required to give their answers as part of their course evaluation. Students could also communicate with their lecturers via SMS. Questionnaires were then distributed to gauge the students’ perceived usefulness toward M-Learning.

1.1 Instruments

In order to assess respondents’ perceived usefulness towards M-Learning, we adopted and adapted questionnaire from the Technology Acceptance Model by Davis (1989). The participants responded to statements using a 5-point Likert scale, with response options ranging from 1 (strongly disagree), 2 (disagree), 3 (slightly disagree), 4 (agree) and 5 (strongly agree). A pilot study was conducted with 47 students in one of the classes involved in this study. The alpha cronbach value for this instrument was .84, which was acceptable.

Findings

Perceived usefulness towards M-Learning measures the extent of students’ belief that the M-Learning environment is useful and capable to increase their learning performance. The frequency and percentage for each level of the usefulness of M-Learning is given in Table 1.

<table>
<thead>
<tr>
<th>Level</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.00 – 2.33</td>
<td>14</td>
<td>6.7</td>
</tr>
<tr>
<td>(Low)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.34 – 3.67</td>
<td>47</td>
<td>22.4</td>
</tr>
<tr>
<td>(Moderate)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.68 – 5.00</td>
<td>149</td>
<td>71.0</td>
</tr>
<tr>
<td>(High)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The overall mean of perceived usefulness is high with a mean of 3.85 (SD = 0.84). This showed that the students strongly believe that M-Learning environments are useful and can improve the performance of their learning. Respondents also agreed that M-Learning is useful in their course (M = 4.03, SD = .91) and good for learning (M = 3.95, SD = .88). More than half of respondents (56.7%) agreed that M-Learning can help them to have a better understanding; whereas 54.8% of respondents agreed that M-Learning
can enhance their effectiveness of their learning. This analysis clearly indicates that M-Learning is useful for implementation.

Table 1. Min, Standard Deviation and Measurement of Perceived Usefulness

<table>
<thead>
<tr>
<th>Item</th>
<th>Min</th>
<th>Std. Dev</th>
<th>SD (%)</th>
<th>D (%)</th>
<th>NT (%)</th>
<th>A (%)</th>
<th>SA (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using M-Learning would likely enable me to accomplish learning tasks more quickly.</td>
<td>3.79</td>
<td>.93</td>
<td>2.9</td>
<td>4.8</td>
<td>24.3</td>
<td>47.1</td>
<td>21.0</td>
</tr>
<tr>
<td>Using M-Learning in this course would enhance the effectiveness of my learning.</td>
<td>3.80</td>
<td>.92</td>
<td>2.4</td>
<td>7.6</td>
<td>16.2</td>
<td>54.8</td>
<td>19.0</td>
</tr>
<tr>
<td>I think that M-Learning helps me in better understanding of what I have learnt.</td>
<td>3.86</td>
<td>.88</td>
<td>2.9</td>
<td>4.3</td>
<td>16.7</td>
<td>56.7</td>
<td>19.5</td>
</tr>
<tr>
<td>I think that using M-Learning for this course is a good choice.</td>
<td>3.84</td>
<td>.94</td>
<td>3.8</td>
<td>5.2</td>
<td>14.8</td>
<td>55.2</td>
<td>21.0</td>
</tr>
<tr>
<td>I think that M-Learning is good for learning</td>
<td>3.95</td>
<td>.88</td>
<td>3.3</td>
<td>3.3</td>
<td>11.0</td>
<td>60.0</td>
<td>22.4</td>
</tr>
</tbody>
</table>

Overall Min = 3.85 (Std. Dev = 0.84)

SD: Strongly Disagree; D: Disagree; NT: Not Sure; A: Agree; SA: Strongly Agree.

CONCLUSION

Mobile devices are not used only for communication purposes or entertainment. They can be deployed for educational purposes to enhance the teaching and learning processes. This study found that the respondents had a positive perceived usefulness towards M-Learning, as reflected in their responses. In their opinion, M-Learning was a worthwhile tool that could assist them to have better understanding and it’s good for learning.
REFERENCES


