Challenges in Accepting the E-Learning System: The Case of E-Learners from Different Backgrounds of Study

Mohd Zakhiri Md Nor¹ and Ani Munirah Mohamad²
College of Law, Government and International Studies, Universiti Utara Malaysia, Sintok, Kedah, Malaysia
¹zakhiri@uum.edu.my, ²animunirah@uum.edu.my
Abstract

While the world could see the significance of the e-learning system in providing access to the education system due to its simplicity, convenience and low-cost, the situation at the end of the bargain is the impact of the e-learning system on the e-learners themselves. The scenario is further complicated by the fact that the e-learners could come from various academic backgrounds, different from the current e-learning courses they are taking. It is within this context that this paper aims to critically examine the challenges in accepting the e-learning system within the context of e-learners who possess academic backgrounds different that the e-learning course they are taking up. In addition, this research aims to propose recommendations for the betterment of the e-learning system, particularly by taking into consideration the viewpoints of the respondents, who are the educators, the system developer and the e-learners themselves. The research adopts a qualitative method, comprising of the collection of primary data (which involves a field work adopting the case study design on a private global university in Malaysia) and secondary data (which involves a library-based research). The primary data which have been generated is analysed by using the computer-aided qualitative data analysis software ATLAS.ti version 6.2 prior to reporting of the same. The paper concludes that the acceptance of the e-learning system is generally motivated by the technology acceptance theory which emphasizes upon the perceived usefulness and perceived ease of use of the system. Nevertheless, the case is not so similar for e-learners who come from academic backgrounds different than the course they are taking up as there are challenges facing their acceptance of the e-learning system.
Challenges in Accepting the E-Learning System: The Case of E-Learners from Different Backgrounds of Study

Keywords: E-learning, e-learning system, technology acceptance theory, academic background of study.

Introduction

This study was motivated by the emerging e-learning opportunities in Malaysia offered by numerous learning institutions. As the e-learning phenomenon takes place in the arena of learning institutions in Malaysia, the focus of the study is the acceptance of e-learning system within the context of e-learners coming from various academic backgrounds, different from the current e-learning courses they are taking.

Basically, the study attempts to address the question of how receptive is it of the e-learning
system among e-learners coming from different backgrounds from the current e-learning courses they are taking by applying the technology acceptance model (TAM). Accordingly, the main objective of the research is to examine the challenges in accepting the e-learning system within the context of e-learners who possess academic backgrounds different that the e-learning course they are taking up.

**Literature Review**

As in any other technologies, the e-learning technology is a double-edged sword. At one end it provides advantages and benefits, particularly due to the nature that e-learning supports the learning process using the Internet medium, such as convenience and portability, flexibility, higher retention rates of the lecture materials, greater collaboration and global opportunities. Nevertheless, at the other end of the e-learning technology, it poses problems and challenges, such as bandwidth issue and connectivity, as well as computer illiteracy and digital divide.

This paper focuses on the various issues and challenges facing the e-learning system, with the aim to apply these challenges to the case of e-learners from academic backgrounds different from the e-learning course they are taking up. For example, Wong (2007) examined quite extensively on the problems of e-learning, among others technological limitations, personal issues, limitations compared to traditional campus and design limitations. On this note, it is argued that e-learners need the necessary hardware for e-learning such as desktop or notebook computers and printers (Kathawala, Abdou, Elmulti, 2002; Hiltz, 1997).

Therefore, one of the major technological limitations of e-learning is the necessity of computer hardware and relevant resources, such as broadband and connectivity. Accordingly, Baker (2003) even mentioned that video conferencing might not be feasible for learners who rely on the slow dial-up connection from their homes. Even though broadband service is available in the Klang Valley of Malaysia now, this service is limited to certain locations with higher population density.

Along the same line of discussion, Kember et al.(2001) mentioned that preparation is indeed needed for newcomers as they may think that nontraditional learning such as e-learning is the same as a traditional learning environment. Additionally, Carr (1999) mentioned that the lack of ICT skills is one of the barriers in e-learning training. As e-learning is the product of the advanced technology, e-learners will have to learn new skills and responsibilities related to the technology (Angelina, 2002). E-learners should be information and communication technology (ICT) savvy.

Nevertheless, Yum, Kember and Siaw (2001) mentioned that part time e-learners like e-learning learners often find it hard to find time for their studies due to their existing commitments to work, family and other social activities. In addition, lacking physical interaction is another limitation in e-learning. Schott et al. (2003) expressed that the lack of physical interactions made e-learning
Challenges in Accepting the E-Learning System: The Case of E-Learners from Different Backgrounds of Study

E-learners feel isolated and apprehensive. Lacking physical interaction may also affect the completion rate (Haigh, 2004).

In terms of technology acceptance, Davis (1986) introduced the technology acceptance model (TAM), which described an individuals' acceptance of information technology. The goal of TAM is to provide an explanation of the determinants of computer acceptance among users. TAM consists of two determinants, the first one is perceived usefulness which refers to the degree to which a person believes that using a particular system would enhance his/her job performance. The other determinant of TAM is perceived ease of use referring to the degree to which a person believes that using a particular system would be free from effort (Davis, 1989).

The external variables in the model refer to a set of variables such as objective system design characteristics, training, computer self-efficacy, user involvement in design, and the nature of the implementation process (Davis and Venkatesh, 1996). The illustration of TAM is produced in Figure 1 below.

![Figure 1. The Technology Acceptance Model according to Davis (1989)](image)

By applying TAM to the context of the current research, the three identified users of the system i.e. the educators, the system developers and the e-learners are expected to acknowledge both the perceived usefulness and the perceived ease of use of the e-learning system before they actually resort to having the behavioural intention to use the system, and finally actually use the system for their respective roles.

Apart from these two determinants, the e-learners’ acceptance of the e-learning system is also contributed by the system design characteristics of the e-learning system, the training provided by the system developers to the educators and the e-learners, computer self-efficacy of the users, users’ involvement in design, and the nature of the implementation process imposed at the institutional levels.

In this matter, the educators are looking for a way to interact with the e-learners to deliver their lecture materials, and instead of meeting the e-learners face to face, the educators familiarize...
themselves with the uploading process of the lecture materials onto the e-learning system. On the other hand, the system developers build and tailor the e-learning system according to the needs of the educators and administrators, as well as to balance with the needs of the e-learners.

And finally, the e-learners are looking at flexible mechanism to access the lecture materials for the relevant courses via the e-learning system. The relationship between the users is summarized in Figure 2 below.

![Figure 2. Relationship between the users of the e-learning system](image)

**Methodology**

Engaging in a purely qualitative research, the study consists of two parts, the collection of secondary and primary data. The first part which is the collection of secondary data ranges from textbooks, journal articles, newspaper reports, and the institutional documents belonging to the unit of analysis undertaken in this research.

The secondary data generated was triangulated with the primary data, which is the second part of the research. The primary data was generated by adopting the case study design as it allows for deeper understanding of a specific phenomenon. For the current research project, the phenomenon is the acceptance of the e-learning system by e-learners from different backgrounds of study.

The chosen unit of analysis for the case study is a private global international university in Malaysia specializing in Islamic finance. The instrument used was semi-structured interviews aimed at enquiring the perception of the respondents on the use of the e-learning system at their institution generally, and specifically to identify the challenges in accepting the e-learning system within the context of e-learners who possess academic backgrounds other than Islamic finance prior than taking up the e-learning course. The sampling of the respondents was based on their respective occupational roles, i.e. the educators, the system developer and the e-learners. In total,
six respondents participated in the interviews as shown in Figure 3 below.

**Data Analysis**

The primary data in the form of interview responses from the respondents was transcribed, cleaned and assigned to the computer aided qualitative data analysis software ATLAS.ti v6.2 for analysis. The codes of the interview responses were built to match the constructs found in the literatures as guidance to probe into the respondents’ perception and experience in dealing with the e-learning system generally, and to examine the challenges in accepting the e-learning system by the e-learners specifically. The thematic coding of the interview responses is shown in Figure 4 below.
Findings

This part outlines the findings derived from the interview responses. The analysis of the interview responses was done to address the research question of the study, i.e. how receptive is it of the e-learning system among e-learners coming from different backgrounds from the current e-learning courses they are taking by applying the technology acceptance model (TAM) as summarized in Table 1 below.

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Educator</th>
<th>System Developer</th>
<th>Learner</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Acceptance based on TAM Model</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>2 Need for computer resources</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3 Digital divide</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4 Computer illiteracy</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5 Limited broadband and connectivity</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>6 Absence of background</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>7 Family commitment</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>8 Work commitment</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>9 Social activities</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 1. Findings on the challenges facing the reception of the e-learning system by the e-learners
Accordingly, each of the challenges facing the reception of the e-learning system by the e-learners as identified in Table 1 above is produced below.

1- **Acceptance of the e-learning system**

All the respondents believe that the e-learning system provided by the institution is both useful for their purpose and easy to be used. By applying TAM, each of the respondents had the behavioural intention to use the system, but for the external factors which are discussed in the later points of this part.

2- **Need for computer resources**

In respect of the need for computer hardware and resources as a challenge to the e-learning system by the institution, none of the respondents agree that their acceptance of the e-learning system is affected by this. The educators explained that their computers are provided by the institutions and therefore they do not face the problem. Meanwhile, the system developers clarified that their everyday work revolves around computers and computer systems, as such they also do not face the problem. On the other hand, the e-learners are working adults, hence, they already possess computers for their work and personal use. Therefore, all the respondents do not face the problem of not having computers as a challenge to adopt the e-learning system.

3- **Digital divide issues**

All the respondents agree that digital divide issues are not applicable to the educational institution concerned.

In this regard, all the educators, system developers and e-learners agree that the proactive measure taken by the government to bridge the digital divide in the country has significantly reduced the problem over the years. In addition, the system developers explained that the e-learners who enrolled at the institution are exposed to introductory courses on the e-learning system and taught how to effectively use the system. In agreeing with the system developers, the e-learners clarified that the digital divide is not applicable to the e-learners at the institution.

4- **Computer illiteracy hindrance**

All the respondents agree that computer illiteracy issues are not applicable to the educational institution concerned so as to hinder the users from resorting to the e-learning system.

The educators, the system developers and the e-learners all acknowledge that the e-learners at the institution are all working adults, and as such the risk of illiteracy is minimized due to the fact that work commitments require the e-learners to possess sound computer literacy skills. By applying the same literacy levels to the e-learning system provided by the institution, the e-learners
should not be facing issues in terms of the technological advances in the e-learning system.

5- Limited broadband and connectivity

Five of the respondents face broadband and connectivity problems when wanting to use the e-learning system. The educators explained that although their computers are in place, they often face limited broadband and connectivity problems. This is essentially so if they are attempting to share large media files such as audio recording or large PDF lecture notes.

Accordingly, the e-learners also clarified that since they access the e-learning system from their office or at home, their attempt to download the course materials often failed, and needed to be attempted a few times before successfully getting the materials. On this note, the system developers explained that the limit to the broadband and connectivity is not attributed to the e-learning system itself but the individual connections of the users.

6- Absence of background on the course

All the respondents believe that the fact that the e-learners do not possess the background of the course could pose as a challenge to the full use of the e-learning system by the e-learners.

The educators explained that since the e-learners do not have the requisite Islamic finance background, the e-learners are expected to devote more time and effort to learn the course and fully utilize the e-learning system on their own. Nevertheless, the access database shown to them does not support that the e-learners access the e-learning system often, and as such, the absence of Islamic finance background on part of the e-learners do contribute to the limits of the adoption of the e-learning system.

Along the same line of argument, the e-learners admitted that they face difficulties in following the course materials as most of the modules in the course are completely new to them. They anticipated a more proactive measure be taken by the institution to improve the e-learning system so that the system becomes more friendly and to improve the data upload and download efficiencies.

7- Family commitment

Five of the respondents opine that the family commitment of the e-learners somehow or another hinders the full utilization of the e-learning system by the e-learners.

The educators agree that the family commitment take up the most time and resources of the e-learners. At work, the e-learners are occupied with office works, and at home, they are occupied with family matters. The e-learners therefore need to balance their working life and family commitments as to allocate some time to access the e-learning system and consume the course materials.

On this note, the e-learners also agree that their family is their priority, but at the same time
acknowledge the need to devote some time for the purpose of completing the course materials in preparation for the final examination.

8- Work commitment

Five of the respondents agree that the work commitment of the e-learners also hinders the full use of the e-learning system by the e-learners.

The educators explained that their e-learners are working adults and as such have a full time job to commit to. Learning is only a part time endeavour by the e-learners, and as such the e-learners could not concentrate fully on the e-learning course they take up.

Meanwhile, the one of the system developers agree to the same effect, while the other one opined that when the e-learners decided to take up the course, the e-learners should be responsible in devoting a specific time and resources to the e-learning course and should not give excuse of their work commitments so as to avoid the responsibilities of being an e-learner. Accordingly, the e-learners share the same view with the educators that their work commitment often takes priority over the e-learning course they take up.

9- Social activities

Four of the respondents agree that the social activities of the e-learners could possibly hinder the full adoption of the e-learning system by the e-learners.

The educators explained that they expect the e-learners to concentrate more on their e-learning courses, but admit that they do have e-learners in their course whom are occupied with their personal and social activities. On the other hand, the e-learners themselves admit that they do indeed commit to their personal and social activities more given the flexibility of the e-learning system. At the end of the day, they find themselves lagging behind the e-learning course as the final examination approaches by.

Discussion and Conclusion

In conclusion, the study found that the acceptance of the e-learning system is generally motivated by the TAM model which emphasizes upon the perceived usefulness and perceived ease of use of the system. Most of the respondents clarified that they truly believe that the e-learning system is indeed useful for their purpose and easy to be used.

Nevertheless, the case is not so similar for e-learners who come from academic backgrounds different than the course they are taking up as there are challenges facing their acceptance of the e-learning system. The challenges include limited broadband and connectivity, which further hinders the full use of e-learning as the system often fails during download of large media files.
Another major challenge is the absence of background on the Islamic finance course taken up by the e-learners as they come from diverse backgrounds such as engineering, law, information technology and the like. This requires the e-learners to spend more time and commitment for each of the modules they are taking up, yet they are not complacent if only the e-learning system provides them with the course materials, as opposed to traditional classes.

In addition, family, work and social commitments also consume most of the time and resources of the e-learners despite the fact that they should be concentrating more on the e-learning system to catch up on the course. In conclusion, as working adults who have their own careers, families and social activities, and coming from backgrounds other than Islamic finance, the e-learning system could possibly not be the best medium for the e-learners in catching up with the course they are taking.

Nevertheless, this study only focuses on the acceptance of the e-learners of the e-learning system based on TAM, with extension of the challenges facing the full utilization of the e-learning system. The actual academic performance of the e-learners by using the e-learning system was not tested. Therefore, future research could focus on the academic performance of the these e-learners by taking into account that they utilize the e-learning system yet they do not possess the relevant background as the course that they are taking up.
Challenges in Accepting the E-Learning System: The Case of E-Learners from Different Backgrounds of Study

References


Kember, D., Armour, R., Jenkins, W., Lee, K., Leung, D.Y.P., Li, N., Ng, K.C., Siaw, I., &


Schott, M., Chernish, W., Dooley, K.E., & Linder, J.R., (2003), ‘Innovations in Distance Learning Program Development and Delivery’, Online Journal of Distance Learning Administration, vol.6, no.2.
