Faculty of Cognitive Sciences and Human Development

FACTORS ASSOCIATED WITH STUDENTS' ACCEPTANCE TOWARDS E-LEARNING AS A LEARNING TOOL

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FACTORS ASSOCIATED WITH STUDENTS' ACCEPTANCE TOWARDS E-LEARNING AS A LEARNING TOOL

TANG KUI SIEW

This project is submitted in partial fulfilment of the requirements for a
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ABSTRACT

FACTORS ASSOCIATED WITH STUDENTS' ACCEPTANCE TOWARDS E-LEARNING AS A LEARNING TOOL

Tang Kui Siew

This study aims to investigate the level of students' acceptance towards e-Learning as a learning tool and the possible factors associating with students' acceptance in UNIMAS. The main research instrument that used in this study is set of questionnaires that distributed to 240 respondents which included of 120 males and 120 females with the involvement of all the faculties in UNIMAS. Findings of this study were analyzed by using Statistical Package for the Social Science (SPSS) 17.0 window version. The statistical techniques utilized in data analyzing were Independent Sample (T-test) and Pearson Correlation Coefficient. Independent Sample (T-test) in this study was to determine the differences between male and female respondents in terms of their acceptance towards e-Learning as a learning tool in UNIMAS while Pearson Correlation Coefficient applied in order to determine the relationship between computer self-efficacy, motivation, technology support, and instructors' characteristics with respondents' acceptance towards e-Learning as a learning tool. The findings showed that there is no significant difference between male and female students in terms of their acceptance towards e-Learning. Besides, results showed that all the four factors have significant relationship with the acceptance of students towards e-Learning as learning tool in UNIMAS. Based on the findings of this study, recommendations were suggested to policy maker, instructors, as well as future researchers in purpose to improve the e-Learning system in teaching and learning process in higher education.

ABSTRAK

FAKTOR-FAKTOR YANG BERKAITAN DENGAN PENERIMAAN PELAJAR TERHADAP 'E-LEARNING' SEBAGAI ALAT BELAJAR

Tang Kui Siew

Kajian ini bertujuan untuk mengkaji tahap penerimaan pelajar terhahap 'e-Learning' sebagai alat belajar dan faktor-faktor yang berkaitan dengan penerimaan pelajar di UNIMAS. Instrumen utama kajian ini adalah borang soal selidik dan telah diedarkan kepada 240 responden yang terdiri daripada 120 lelaki dan 120 perempuan serta melibatkan semua fakulti di UNIMAS. Keputusan kajian ini dianalisasi dengan menggunakan perisian Statistical Package for Sosial Sciences (SPSS) Versi 17.0. Teknik-teknik analisis data yang digunakan dalam kajian ini adalah Analisis Ujian T dan Analisis Korelasi Pearson. Dalam kajian ini, Ujian T digunakan untuk menentukan perbezaan di antara lelaki dan perempuan responden terhadap penerimaan 'e-Learning' sebagai alat belajar di UNIMAS. Analisis Korelasi Pearson pula digunakan untuk mengkaji hubungan signifikan antara kemahiran kendiri berkomputer, motivasi, sokongan teknologi, dan ciri-ciri instruktur dengan penerimaan responden terhadap 'e-Learning' sebagai alat belajar. Hasil kajian ini menunjukkan bahawa tidak terdapat perbezaan signifikan di antara pelajar lelaki dan pelajar perempuan terhadap penerimaan 'e-Learning'. Manakala, kesemua empat faktor yang mempunyai perkaitan dengan penerimaan 'e-Learning' sebagai alat belajar di kalangan pelajar UNIMAS, didapati mempunyai hubungan signifikan terhadapnya. Berdasarkan dapatan kajian ini, beberapa cadangan telah dikemukakan kepada penggubal polisi, instruktur, dan juga penyelidikan masa hadapan demi meningkatkan lagi penggunaan 'e-Learning' sistem dalam proses pengajar dan pembelajaran di Institusi Tinggi.

CHAPTER 1

INTRODUCTION

1.0 Introduction

This chapter presented the background of study, problem statement, and objectives of study which consisted of general objective and its specific objectives. It is then followed by conceptual framework, hypotheses and definition of terms, which comprised of conceptual and operational terms, as well as significance of study.

1.1 Background of Study

Computer technology is a universal fact of life and education (Magliaro & Ezeife, 2007). Information is transferred on a daily basis as living in a rapid-paced of world. In this changing world, the role of instructors has been shifted. They are not only responsible for delivering content, but also to expand a new way of learning to their students.

Thus, e-Learning has become a significant way of education during the last couple of decades. In sequent to make a comparison with traditional, face-to-face learning, where all learners are located (same place/same time), e-Learning represent a fundamental change in education process (Nedelko, 2008). This is due to the learners in e-Learning process are at physical distance. Owing to the separation of learners in e-Learning process, it is supported with the modern information and communication technology (ICT).

E-Learning can be defined as instructional content or learning techniques delivered by electronic technology. It has the potential to develop the basic belief of learning by making learning individual-based rather than institution-based. Its aim is to enhance the knowledge, skills, and productive capabilities of the learners in a global situation.

In fact, e-Learning is essential not only for economic reasons but it has major social benefits as well. By broadening access to high-quality education and training opportunities to the various segments of society, it has a prospective to reduce the economic gap which is caused by the denial of education to the economically deprived sector of the population offering those better work opportunities (A. S. Guha & Subhashish Maji, 2008, p. 299).

As indicated by Garrison and Anderson (2003), e-Learning is once an experiment but has now shifted into the mainstream of higher education. Indeed, it has been adopted by many institutions around the world. Unquestionably, e-Learning is an opportunity emerged recently to improve the learning process by using a more modern, efficient, and effective teaching and learning based information technology.

The learning environment of higher education is rapidly growing. "Due to the rising costs, shrinking budgets, and increasing needs for distance education (New Media Consortium, 2007), it causes educational institutions to reassess the way that education is delivered" (Wagner et al., 2008, p. 26). In response to this changing environment, e-Learning is being put into practice more recurrently in higher education, generating new and stimulating opportunities for both educational institutions and students.

Computer self-efficacy is one of the factors that will influence students' effort in computing environment. This study mainly examined the effects of computer self-efficacy towards e-Learning outcomes. Previous studies had indicated that self-efficacy of e-Learning has a direct effect on learning outcomes. In a community e-Learning environment, computer self-efficacy may be a bigger issue as research has often found that older learners (adults) may have lower computer self-efficacy than younger learners (college students).

Undeniable, motivation is related to affective computing. Motivation of individuals plays a significant part in succeeding e-Learning. Initial impressions of this form of learning can have a vital impact on acceptance and participation in events. Motivation, a force that directs behavior towards a goal could certainly be perceived as one of the most important psychological concepts in education field.

In addition, the statement of "e-Learning environment is useable and accessible technology" had proved its critically as critical success factor in creating an effective and valuable learning environment. Furthermore, Hofmann (2003) also pointed out that "e-Learning is a required technology that works efficiently, access to support tools, and programs that are designed to effectively use of technology".

A review of past studies revealed that several factors were related to instructors' use of e-Learning. For instance, Thowfeek and Hussin (2008) explained that there are three instructor characteristics influencing the learning outcome, they are attitude towards technology, style of teaching, and control of the technology. This study focused on the learning outcome that is to be gained by the students and the role to be played by the instructors in stimulating students to use the e-Learning.

Moya and Robinah (2009) stated that higher education, just like many industries, recognizes that the use of technology is the growth and survival of once organization. Many organizations are willing to spend a large portion of their budget on information technology to improve [student] performance or overall organizational performance.

As well as University of Malaysia Sarawak (UNIMAS), an educational institutes that are in its own way to adopt the e-Learning system. Aimed at offering high level of educational programs, it has considered the requirements for applying the e-Learning system, and the establishment of online resources. E-Learning has contributed to the exponential growth of learners enrolled in its programmes. Through *The Academic Support System (ASSIST)*; the system that supports the online teaching-learning initiative in UNIMAS, comprises of various systems that integrate practices of teaching-learning. MORPHEUS is among the examples of e-Learning that currently used in UNIMAS.

Applying e-Learning system at UNIMAS believed to provide an opportunity for improving the quality of education as well as to address with the challenges arise from the widening number of students enrolling locally and regionally, compared to the limited human and technical resources.

1.2 Problem Statement

E-Learning could have potentially affected the way of a higher education to be designed, implemented, and delivered. Formerly, universities have been standing in their structure and delivery of higher education courses. In spite of this, demand for learning has never been so high, and this in combination with the need to physically broaden learning may prompt universities to introduce e-Learning initiatives.

In many aspects, e-Learning can be regarded as a democratizing device, enabling the university to rapidly reach out to more students, thus contributing to the efficiency and effectiveness of teaching and learning. With the aid of the internet, many local universities have started to adopt the inspiration of applying the e-Learning system and University of Malaysia Sarawak (UNIMAS) is no exception.

In UNIMAS, acceptance of students, however, are less commonly examined. For instance, to determine what those acceptances are, how they are formed, and how deeply they impact from e-Learning adoption and utilize. Faculty who have perfected their educational strategies in face-to-face classroom instruction sometimes find themselves struggling with obstacles in the e-Learning environment such as limitations of technical infrastructure and learning how to build interactivity into online course modules.

Several problems with e-Learning in higher education have been well-documented. Teare's (as cited in Singh & Worton, n.d.) studies indicated that owing

to the technological failures, some students who utilizing the e-Learning found that the delivery of content is ineffectual. Thus, these finding's imply that problems with e-Learning initiatives are relied on the reliability of the technology supporting them.

Apart from that, instructors might face several difficulties when implementing e-Learning, for example, most of the time is required to write rather than speak out their thoughts and build interactivity into a course. On the other hand, most of the students in university have been encountered several difficulties related to e-Learning. It included the need to learn on how to use courseware and word-processing, and presentation software in order to take exams and fulfill assignments; managing online content; and also applying self-disciplined time management.

Lim et.al (2008) stated that "students' acceptance as the confirmable willingness within a user group to employ information technology for the tasks it is designed to support" (p. 541). Although, e-Learning is increasingly used in higher institutions in Malaysia; however, the question on how well the learners can accept e-Learning as a learning tool has not been well-researched. Therefore, this research study is proposed to explore the levels of students' acceptance towards e-Learning as learning tool in UNIMAS and what are the possible factors that associated with students' acceptance.

1.3 Objectives of Study

1.3.1 General Objective

The general objective of this study aims to investigate the level of students' acceptance towards e-Learning as a learning tool and the possible factors that associated with students' acceptance.

1.3.2 Specific Objectives

Specifically, the objectives of this are as follows:

i. To determine the difference between gender and students' acceptance towards e-Learning as a learning tool.

ii. To determine the relationship between computer self-efficacy and students' acceptance towards e-Learning as a learning tool.

iii. To determine the relationship between motivation and students' acceptance towards e-Learning as a learning tool.

iv. To determine the relationship between technology support and students' acceptance towards e-Learning as a learning tool.

v. To determine the relationship between instructors' characteristics and students' acceptance towards e-Learning as a learning tool.

1.4 Conceptual Framework

Conceptual framework for the overall study had been developed from the review of literature. The conceptual framework discussed provides an understanding of the importance of the use of e-Learning in the learning process and the possible factors associated with students' acceptance towards e-Learning as their learning tool. The dependent variable is students' acceptance towards e-Learning as a learning tool, whereas the independent variables are demographic factor (gender), computer self-efficacy, motivation, technology support, and instructors' characteristics.

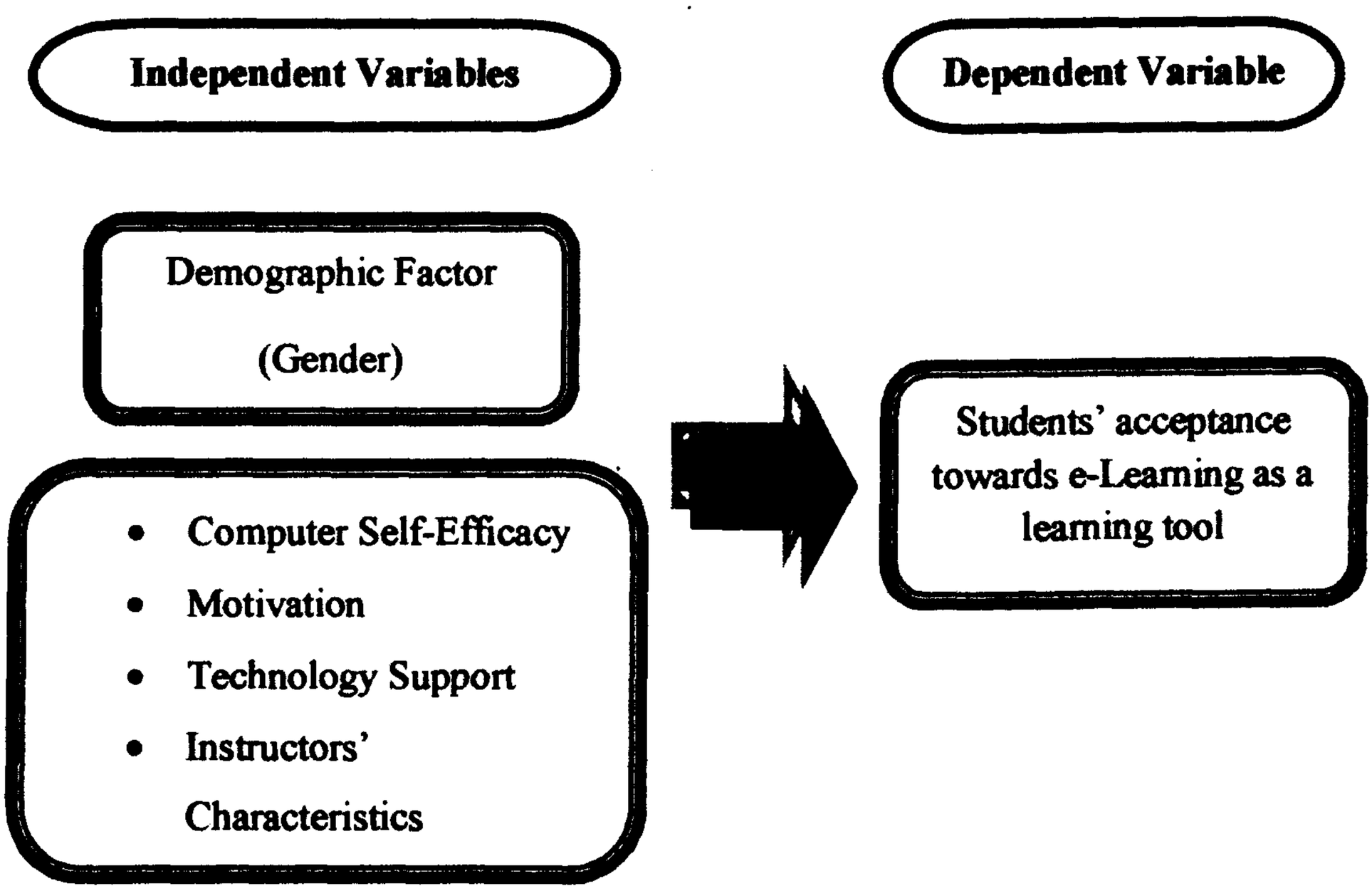

Figure 1.1: Conceptual Framework

Source: Lim et al. (2008), pp. 541-551.

1.5 Hypotheses

Drawing upon the literature and based on the present research context, this research investigated the following hypotheses:

Ho	*Hypotheses*
Ho1	There is no significant difference between gender and students' acceptance towards e- Learning as a learning tool.
Ho2	There is no significant relationship between computer self-efficacy and students' acceptance towards e-Learning as a learning tool.
Ho3	There is no significant relationship between motivation and students' acceptance towards e-Learning as a learning tool.
Ho4	There is no significant relationship between technology support and students' acceptance towards e-Learning as a learning tool.
Ho5	There is no significant relationship between instructors' characteristics and students' acceptance towards e-Learning as a learning tool.

Table 1.1: Hypotheses of Study

1.6 Definition of Terms

In this study, the conceptual and operational definition of terms has been given to enable this study to be understood more clearly within the framework given.

1.6.1 E-Learning

Conceptual terms

According to Rosenberg (2001), e-Learning is identified as the use of internet technologies to deliver a broad range of solutions that can enhance learners' knowledge and performance in their learning process.

Operational terms

E-Learning in UNIMAS has the feasibility to offer lifelong learning to students in order to meet with the greater range of learning demands. It will support students in lifelong learning and enables them to access and broaden the curriculum. E-Learning lessons are commonly designed to give guidance to students by providing them information or assisting them to perform better in certain tasks.

1.6.2 Acceptance of Student

Conceptual terms

Users' acceptance of Information Technology (IT) is a prerequisite before users can identify the IT's value and then utilize it. It has been conceptualized as an effect variable in a psychological process that users undergo in making judgments or decisions towards technology (Dillon, 2001).

Operational terms

This study attempted to identify psychological variables that distinguish students in UNIMAS who accept or reject e-Learning as their learning tool. It is undeniable that determining user acceptance towards a system is complex but it is a critical part of human factors research.

1.6.3 Computer Self-Efficacy

Conceptual terms

Computer self-efficacy (CSE) means one's perception of their computer skills about computer use. Jong and Chae (2007) stated that it is defined as individual's self-confidence in his or her ability or expertise to perform behavior and use the computer in the context of information technology practice.

Operational terms

In this study, the level of capability of using computer to perform tasks among UNIMAS' students is one of the factors that attempt to be investigated. Students who express higher CSE level are more likely to express positive beliefs, and more frequent use of IT.