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Date      : JUNE 2012
This dissertation is dedicated to my family for their endless support and encouragement.
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A very special thanks to the management of Yobe State University, Damaturu Nigeria especially the Vice Chancellor, Professor Musa Alabe, who has given me this unique opportunity to pursue my Master programme in UTM. My thanks and appreciation to all my friends for their continued encouragement and invaluable suggestions and discussions during this work, their responses to my emails at the difficult times were of great help.

I would like to express my gratitude to my family, my brothers and sisters. I have always needed to work hard to achieve my goals in life and they have always been there for me as an unwavering support. I dedicate this work to my mother, to honor her love, prayers, and support when we were together.
E-learning is one of the recent trend and major technological advancement in Information technology, reshaping the mode of delivery of education in Universities. In light of this, the Universities have to take advantage of using e-learning to deliver education to students. A lot of factors must be put into consideration for any universities that need to venture into e-learning based courses. This research is intended to examine the e-learning critical success factors (CSFs) as perceived by students. In this study, two main factors related to the e-learning CSFs within a university environment including technological and student factors were examined. The factors were tested by surveying 450 undergraduate and Master students at the Faculty of Computer Science and Information Systems, Universiti Teknologi Malaysia. The results revealed that for Technology factor, internet browsing speed and reliability of the university networks are most critical, while for the Students factors, instructor participation in discussion groups is most critical factors for e-learning.
ABSTRAK

E-pembelajaran merupakan satu arah alir yang baru dalam kemajuan teknologi maklumat; seterusnya membentuk semula cara penyampaian maklumat di universiti. Oleh yang sedemikian, e-pembelajaran harus digunakan didalam sistem pendidikan kepada pelajar khususnya di dalam universiti. Terdapat pelbagai faktor yang perlu dipertimbangkan untuk menggunakan e-pembelajaran didalam universiti berdasarkan pembelajaran. Oleh itu, kajian ini bertujuan untuk mengenalpasti faktor kejayaan kritikal dalam e-pembelajaran berdasarkan persepsi pelajar. Dalam kajian ini dua faktor utama yang berkaitan faktor kejayaan kritikal e-pembelajaran seperti faktor teknologi dan pelajar diuji. Seramai 450 orang pelajar ijazah dan sarjana dari Fakulti Sains Komputer dan Sistem Maklumat, Universiti Teknologi Malaysia digunakan sebagai pengukur keatas faktor-faktor yang berkaitan. Hasil ujian menunjukkan bahawa faktor teknologi; kelajuan melayari internet adalah faktor yang paling kritikal, manakala bagi faktor pelajar; penyertaan pengajar didalam perbincangan merupakan faktor yang kritikal untuk e-pembelajaran.
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CHAPTER 1

PROJECT OVERVIEW

1.1 Introduction

The rapid growth in the information communication technology (ICT) provides the tools needed by the knowledge economy and information society. These ICT tools allow us to create, collect, store, and use any knowledge and information. This explosive growth of ICT has made it a popular platform for providing a wide range of electronic services in education. The wide use of the internet also has led to a dynamic dimension in interactive and collaborative learning anytime and anyplace. Electronic learning or e-learning introduced in 1990s has improved students’ learning styles and qualities of teaching.

Nowadays e-learning has become an accepted educational paradigm across universities worldwide (Masrom, 2008). The existence of e-learning is highly dependent on the computing technology and the internet. It should not be viewed as replacing today traditional way of teaching. Mahani, et.al (2006) pointed that the human workforce and face-to-face interaction are still needed in teaching and learning process even if e-learning implemented.

In principle, e-learning is a kind of distance learning whereby learning materials can be accessed from the web or CD via a computer, and the instructor and learners can communicate with each other using e-mail or discussion forum (Ignatius
E-learning, also known as online learning was one of ICT tools introduced at College of Science and Technology (CST), UTM beginning 2001. WebCT software was the first online learning software introduced to all academic staff in UTM. This software provides several teaching and learning functions such as download and uploads process, creates electronic learning materials, provides online discussion, record all students’ activities and facilitate online communication. In 2004, after three years of using the WebCT, the top management and e-learning committee decided to change the WebCT e-learning management system to the open source-based learning management system. UTM has chosen MoodleTM system as the open source software system.

Moodle, which stands for Modular Object-Oriented Dynamic Learning Environment, has been developed using the basic pedagogy and social constructivist learning theory. This approach emphasized on student-centered learning process whereby the students can develop their own learning style based on discovery and exploratory activities. The learning environment supported by Moodle is divided into four phases of work

i. Constructing
ii. Collaborating
iii. Creating
iv. Sharing

With regard to this learning environment and activities in the system, the universities can provide students with not only good understanding and opportunity to create new ideas, but also a platform to share ideas and work in a team.

In terms of e-learning, critical success factors (CSFs) are viewed as those activities and constituents that must be addressed in order to ensure its successful accomplishment (Zainon 2009). According to Selim 2005, e-learning CSFs within a university environment can be grouped into four categories: instructor, student, information technology and university support.
1.2 Background of the Problem

The heavy investment made in e-learning by the educational institutions reflect a favorable context in the development of electronic market and learning on the internet (Leidner, 2001). Recently, information technology (IT) has been considered as a solution to cost and quality problems of educational institutions and universities. IT has introduced more modern, efficient and effective methods of learning for students known as e-learning (Selim, 2007). Issues related to cost, efficiency and effectiveness drive organizations to implement e-learning initiatives (Trentin, 2000). E-learning as one of IT applications has been integrated with university programs (Selim, 2007).

Recently estimates have signified that organizations are devoting huge amount of money to e-learning and other initiatives based on technology. Furthermore, up to 1.2 million students register for e-learning based courses, with estimates suggesting that nearly 40 percent of courses in Malaysian Universities are currently offered base on e-learning and many institutions had saved cost by merging traditional course with e-learning innovations (Hammad K, 2009)

Helmi pointed out that e-learning courses still have deficiency which must be recognized. For instance, many of online courses cannot motivate students for participation, in other word e-learning tend to be isolating (A. Helmi, 2002). Hence it should not be surprising that most students prefer face to face courses and on other side the e-learning have high rates of dropout (Clarke and Hermens, 2009). Consequently, by considering organizations which concentrate on e-learning methods, understanding how to overcome this limitation is very critical.
Despite many uncertainties which occurred throughout the process, part of the teaching and learning processes are moving towards the internet usage. These uncertainties bring about difficulties for academic administrators, who face the challenge of keeping the focus on essential and relevant aspects that will assure the success of the program. Full understanding of the success factors contributing to effectiveness of e-learning system is needed to help universities fund effective factors and eliminate non-effective factors.

Based on previous research (Yahya 2009) about implementation of e-learning at UTM, it was found quite a number of issues, which are:

i. Frequency of students in the use of e-learning at UTM is 3-4 times a week, and there are students who use e-learning less than once a week.

ii. Factors that affect students in the use e-learning are interest to use ICT, want to try something new feel comfortable to use ICT and does not want to leave behind in the use e-learning.

iii. Other factors that cause the low interest of students to use e-learning that is of low motivation, cost, time and ease of use e-learning.

iv. Internet connection that often break down

And therefore, the research on this subject is still insufficient (Salas et al, 2008) and hence many educational institutions acting on this field still have many unanswered questions.

One way to confronting to such challenges is recognizing factors which have vital role in e-learning success otherwise known as Critical Success Factors (CSF). Critical Success Factors (CSF) entitles something which must be implemented if organization wants to be success. These factors should be controllable and measurable and also few in number (H. Selim, 2007). Previous researches consider a broader scope that entails many critical success factors, many of which are not
related to University environment. Since the researcher is intend to capture students perspectives on e-learning CSFs, the research will focus on only those factors related to university environment and more particularly the students. Hence the research will be limited to Technology and students factors as they are more closely concern with the students.

1.3 Problem Statement

As the position of learning and learning careers in the world is growing, it becomes indispensable to develop new and effective ways of enhancing learning. Analyzing key success factor in order to improve eLearning is one of the newly applied methods in modern learning environments. The method helps all e-learning stakeholders verify learning outcomes in educational institutions.

The impact of the e-learning systems on the students depends on how the system is implemented; the students will not adopt it if the system is not user friendly. Some students give the encouraging impact as it improves the quality of education helps them save the time, save cost of going to different campuses, easily reachable and much efficient, some of the problems has been identified and to be solved.

i. What are the critical success factors in Technology and Student factors in UTM e-learning from the student perspectives?

ii. What are the possible strategies that can be employ to propose model, which will improve e-learning implementation in UTM
iii. What are the potential additional tools needed by the students that can improve UTM e-learning?

iv. What are the possible guidelines and recommendation that will help the e-learning stakeholders in UTM to improves on the current implementation level.

UTM has embarked on e-learning for the past 6 years, for this reason it is timely to revise on impact study on the success of this e-learning.

1.4 Objectives

In order to accomplish this study, four objectives have been identified as stated below.

i. To identify the critical success factors in e-learning from the students perspectives.

ii. To proposed model of critical success factors for Technology and Student factors

iii. To identify future feature of e-learning that are needed by students.

iv. To suggest recommendations on how to improved UTM e-learning base on the research findings.
1.5 Scopes of the Project

The scope of this project includes:

i. Focused on FSKSM-UTM students as the user, as one of the top faculties with highest number of students using e-learning, at Skudai campus.

ii. Focus on undergraduate and master’s students.

iii. Focus on e-learning CSFs from the student perspectives only

iv. Focus on Technology and Students factors only

v. Uses questionnaire as the tools for data collections.

1.6 Summary

In this chapter a brief overview about the concept of the project and how the project is going to be achieved has been discussed. The problem background and statements has also been mentioned in this chapter to give a clear background and introduction of the project, and to explain why this project has been proposed (the purpose). The objectives, scope and significance of this project have also been pointed out.