ADOPTION OF KNOWLEDGE MANAGEMENT SYSTEMS (KMS) IN UNIVERSITI TEKNOLOGI MALAYSIA

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Dedicated to

This dissertation is dedicated to my parents Mr. Atiku Abu-Bakr and Mrs. Raudah Abubakar Atiku for their endless love, support and encouragement. The depths of your love and belief in me have been uplifting me to complete this study. Encouragement given makes me become a better person and I strive every day to make you proud. May Almighty Allah continue to Guide and protect you with the entire family.

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ABSTRACT

Knowledge Management System(KMS) has become progressively vital for teaching and learning, and also potentially become one of the most significant applications in Information Technology (IT). This study used a quantitative approach, seeking a causative explanation of the decision behaviour of individuals toward the acceptance of KMS in teaching and learning. Data was collected through a questionnaire from students and lecturers of Faculty of Education, Faculty of Science Faculty of Bioscience and Medical Engineering and Faculty of Mechanical Engineering in UTM. The study framework was based on the second version of the Technology Acceptance Model (TAM2) using eight factors from the framework, the factors are subjective norm, image, job relevant, output quality, result demonstrability, perceived ease of use, perceived usefulness and intention to use. The data were analysed using Structural Equation Modelling, in order to determine the factors that influence the adoption of KMS by lecturers and students in teaching and learning. Results shows that output quality is significantly determined by perceived usefulness and perceived ease of use, which are significantly determined by intention to use, perceived usefulness and subjective norm. But subjective norm is not significantly determined by perceived usefulness, result demonstrability, job relevant and image.

ABSTRAK

Sistem Pengurusan Pengetahuan (KMS) telah menjadi semakin penting untuk pengajaran dan pembelajaran, dan juga berpotensi menjadi salah satu aplikasi yang paling penting dalam Teknologi Maklumat (IT). Kajian ini menggunakan pendekatan kuantitatif, mencari penjelasan penyebab tingkah laku keputusan individu terhadap penerimaan KMS dalam pengajaran dan pembelajaran. Data dikumpulkan melalui soal selidik dari pelajar dan pensyarah Fakulti Pendidikan, Fakulti Sains Fakulti Bio Sains dan Kejuruteraan Perubatan dan Fakulti Kejuruteraan Mekanikal di UTM. Rangka kerja kajian adalah berdasarkan kepada versi kedua Model Penerimaan Teknologi (iaitu, TAM2) menggunakan lapan faktor dari kerangka kerja, faktor-faktor tersebut adalah norma subjektif, imej, pekerjaan yang berkaitan, kualiti output, kebolehpercayaan hasil, kemudahan penggunaan yang dirasakan, kegunaan yang dirasakan dan niat untuk digunakan. Data dianalisis menggunakan pemodelan persamaan struktur, untuk menentukan faktor-faktor yang mempengaruhi penggunaan KMS oleh pensyarah dan pelajar dalam pengajaran dan pembelajaran. Keputusan menunjukkan bahawa kualiti output ditentukan dengan ketara oleh kegunaan yang dirasakan dan kemudahan penggunaan yang dirasakan, yang ketara ditentukan oleh niat untuk menggunakan, kebolehgunaan dan norma subjektif. Tetapi norma subjektif tidak ketara ditentukan oleh kegunaan yang dilihat, hasil kebolehpercayaan, tugas yang berkaitan dan imej.

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LIST OF ABBREVIATIONS

IS   -   Information system

IDT   -   Innovation diffusion theory

KM   -   Knowledge management

KMS   -   Knowledge management system

K   -   Knowledge

MPCU -   Model of PC utilization

MM   -   Theory of motivation model

SCT   -   Social Cognitive theory

TC   -   Theory of combined

TOE   -   Technology Organization environment

TAM   -   technology Acceptance model

TRA   -   Theory of reasoned action

TPB   -   Theory of planned behaviour

TAM2   -   Technology acceptance model 2

UTAUT -   Unified theory of acceptance and used technology

UTAUT2 -   Extend unified theory of acceptance and used technology

LIST OF APPENDICES

CHAPTER 1

INTRODUCTION

1.1 Background of the Study

Knowledge management (KM) has been increased attention since the early 1990s. As a result, more and more organizations in various business sectors have undertaken KM initiatives with different degrees of success, one of them is education sector. Problems experienced in KM initiatives are frequently attributed to focus on KM technological dimension, together with a lack of consideration for the social dimension, for instance organizational culture, (Ramakrishnan and Norizan, 2012). KMS could play an important role in their organization by helping them to improve their service quality especially in teaching and learning (Ramakrishnan and Norizan, 2012).

Today, educational environment is very dynamic and undergoes rapid changes, this is as a result of technological innovation, increased awareness and demands from customers. Business organization, especially the education sector of the 21st century operate in a complex and competitive environment, characterized by changing conditions and highly unpredictable economic climate. The application of knowledge management concept, technique, policies and practice strategies to the education sector has become a subject of fundamental importance and concerns to education and indeed perquisites for local and global competitiveness.

However for an education sector to fully realizing the potentials of its knowledge assets, specific knowledge management systems (KMS) are required to

conduct and facilitate the process, such processes knowledge application of an education sector. Knowledge management systems are considered as a new technology, and therefore, like any other new technology, educational sector face various challenges in deciding whether to adopt it or not, and also, how the users would react to the new system.

Moreover, achieving the expected target is still a challenging task. While few organizations have enjoyed its benefits, others have had a scale back the adoption and accept the minimum payoffs and some others simply give up on the adoption. In fact, it has been estimated that more than 50-70% of KMS project fail to achieve the desired output (Matayong and Mahmood, 2012). Users are the key towards successful uses of KMS. Thus, it is important to ensure the users understand the benefits of using KMS, the usefulness and ease of use is key determinant of adoption in every organization.

1.2 Problem Statements

Many faculties nowadays has the desire to adopt KMS, Since KMS play an important role in education sector which helps the faculty members to improve their service quality in both teaching and learning (Ramakrishnan and Norizan, 2012). There are some factors that influence user to use the system, most of the users of the system don't understand the uses of the system and this is why they do not use it, or some system are rather complicated.

"What are the factors that influence the adoption of Knowledge Management Systems for teaching and learning (T&L) in UTM?"

1.3 Research Questions

   i.   What are the factors that influence the adoption of knowledge management systems in teaching and learning?

  ii.   How to validate and evaluate the proposed factors of KMS adoption for teaching and learning?

1.4 Objectives

   i.   To identify the factors that influences the adoption of knowledge management systems in teaching and learning.

  ii.   To validate and evaluate the proposed factors of KMS adoption.

1.5 Scopes of the Research

This research focused on adoption of knowledge management system for teaching and learning in UTM. To find out what factors that influence students and lecturers to use KMS for the purpose of this research work, hand to hand questioner will be distributed to students and staff in four (4) major faculties as follows;

   i.   Faculty of Education

  ii.   Faculty of Science,

 iii.   Faculty of Bioscience and Medical Engineering

 iv.   Faculty of Mechanical Engineering

1.6 Significance of the Research

There are several significance of study that will be obtained as can be seen, the major contribution of this study is to find the factors that influence the student and lecturers to adopt KMS. It is purpose is to determine the perception of lecturers and students in UTM on KMS, and how they can properly mange the flow of knowledge in teaching and learning. Moreover, the findings of this study will provide the major faculties in UTM with more light on academics perception of KMS in teaching and learning.

1.7 Thesis Organisation

This chapter is about introduction, background of the problem, problem statement, objectives of the study, scope of the study, and significance of the research. In Chapter 2, the relevant literature is reviewed in order to gain more understanding of the adoption of KMS. In Chapter 3, methodology and research design are discussed in detail in order to a have clear guid for the project execusion, while Chapter 4, is initial model of KMS Adoption for teaching and learning. Chapter 5, will be the analysis and findings, while Chapter 6, will be conclusion of the project and recommendation for future study.

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