MOBILE PHONE TECHNOLOGY KNOWLEDGE SHARING MODEL AMONG UNIVERSITY ACADEMICS

A THESIS SUBMITTED TO THE UUM COLLEGE OF ARTS AND SCIENCES IN FULL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY UNIVERSITI UTARA MALAYSIA

BY

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ABSTRACT

The potentials of mobile phone technology are huge and it has opened possibilities and avenues for enhancing knowledge sharing activities among academics in Institutions of Higher Learning (IHLs). However, it was found that there was, in general, lack of knowledge sharing activities among academics in IHLs and lack of academic research on the use of mobile phone technologies for knowledge sharing purposes in IHLs. To address these issues, a study was conducted with the main aim of proposing a mobile phone technology knowledge sharing model for promoting knowledge sharing among academics in IHLs. In order to achieve this, a study was carried out to explore the current state of knowledge sharing among academics in IHLs, to identify the potential use of mobile phone technology for knowledge sharing among academics in IHLs, and to identify the factors that could lead to the adoption of mobile phone technology that could be utilized to promote knowledge sharing among academics in IHLs. A series of tests such as factor analysis, correlation, and reliability analysis was conducted to confirm that the instruments used are valid and reliable. This research adapted the triangulation method for collecting data. A survey research and a case study method were adopted to fulfill the research objectives. This study has successfully developed the extended Theory of Planned Behavior (TPB) model in mobile phone technology knowledge sharing context. The results reinforced the role of mobility, self efficacy, usefulness, interpersonal influence, ease of use, enjoyment, academics' attitude, academics' subjective norm, and academics' behavior control factors as the fundamental drivers for adoption of mobile phone technology to promote knowledge sharing among academics in Institutions of Higher Learning. This research was conducted in three phases. The first phase was to explore the current state of knowledge sharing among academics in IHLs by conducting a 76-items questionnaire on 143 academics that were randomly selected from different colleges in University Utara Malaysia (UUM). The second phase was meant to identify the potential use of mobile phone technology for knowledge sharing among academics in IHLs. The researcher administered a 57-items-questionnaire on 154 academics that were randomly selected from different colleges of UUM. The third phase was carried out to identify the factors that could lead to the adoption of mobile phone technology that can be utilized to promote knowledge sharing among academics in IHLs. The researcher administered a 48-items-questionnaire on 181 academics that were randomly selected from different colleges of UUM. The outcome of this research also indicates that there are many benefits of adopting mobile phone technology for knowledge sharing purposes among academics in IHLs, and thus this study was a worth while effort and beneficial for the academic world. Among the benefits are, it helps to create awareness of the importance of knowledge sharing and management among academics, and it is also able to shed lights on better ways and avenues on how to manage knowledge, intellectual property, information and data in general. In addition, this study can perhaps inculcate the importance of knowledge sharing to all important stakeholders in the institutions of higher learning. Last, but not least, this study also hopes to elicit ways and avenues on how to make mobile phone technology more accessible to all academics and students and perhaps at a cheaper cost.

ABSTRAK

Potensi teknologi telefon bimbit adalah besar dan telah membuka ruang dan kemungkinan untuk meningkatkan aktiviti perkongsian pengetahuan dalam kalangan ahli-ahli akademik di Institusi-institusi Pengajian Tinggi (IPT). Namun, secara umumnya didapati bahawa terdapat kekurangan aktiviti perkongsian pengetahuan dalam kalangan ahli-ahli akademik di IPT dan kekurangan penyelidikan akademik mengenai penggunaan teknologi telefon bimbit untuk tujuan perkongsian pengetahuan di IPT. Untuk menangani isu-isu ini, satu kajian telah dijalankan dengan tujuan utama untuk mencadangkan sebuah model perkongsian pengetahuan menggunakan teknologi telefon bimbit dalam kalangan ahli-ahli akademik di IPT. Untuk mencapai tujuan ini, sebuah kajian telah dijalankan untuk meneroka status semasa aktiviti perkongsian pengetahuan dalam kalangan ahli-ahli akademik di IPT, untuk mengenalpasti potensi penggunaan teknologi telefon bimbit untuk perkongsian pengetahuan dalam kalangan ahli-ahli akademik di IPT, dan untuk mengenalpasti faktor-faktor yang boleh menyumbang ke arah pengadoptasian teknologi telefon bimbit untuk mempromosikan aktiviti perkongsian pengetahuan dalam kalangan ahli-ahli akademik IPT. Serangkaian ujian seperti analisis faktor, korelasi, dan analisis kebolehpercayaan telah dilaksanakan untuk menentukan bahawa instrumen yang digunakan adalah sah dan boleh dipercayai. Penyelidikan ini menggunakan kaedah *triangulation* untuk mengumpul data. Sebuah penyelidikan *survey* dan kaedah kajian kes telah diguna pakai untuk memenuhi objektif-objektif kajian. Kajian ini telah berjaya mengadaptasi model Teori Perilaku Terancang (TPB) dalam konteks perkongsian pengetahuan menggunakan teknologi telefon bimbit. Keputusan kajian menguatkan peranan mobiliti, keampuhan diri, kebergunaan, pengaruh interpersonal, kemudahan penggunaan, kenikmatan, sikap ahli-ahli akademik, norma subjektif ahli-ahli akademik, dan faktor-faktor perilaku kawalan sebagai pemacu asas untuk mengadoptasi teknologi telefon bimbit untuk mempromosi aktiviti perkongsian pengetahuan dalam kalangan ahli-ahli akademik di IPT. Penyelidikan ini telah dijalankan dalam tiga tahap. Tahap pertama adalah untuk meneroka situasi semasa aktiviti perkongsian pengetahuan dalam kalangan ahli-ahli akademik di IPT. Untuk tujuan ini, satu set soal selidik yang mengandungi 76 item telah digunakan untuk 143 ahli akademik yang dipilih secara rawak dari semua kolej di Universiti Utara Malaysia (UUM). Tahap kedua bertujuan untuk mengenalpasti potensi penggunaan teknologi telefon bimbit untuk perkongsian pengetahuan dalam kalangan ahli-ahli akademik di IPT. Satu set soal selidik mengandungi 57 item telah dijawab oleh 154 ahli akademik yang dipilih secara rawak dari semua kolej di UUM. Tahap ketiga dilakukan untuk mengenal pasti faktor-faktor yang boleh menyumbang ke arah pengadoptasian teknologi telefon bimbit untuk mempromosikan aktiviti perkongsian pengetahuan dalam kalangan ahli-ahli akademik IPT. Penyelidik telah menyediakan soal selidik mengandungi 48 item yang dijawab oleh 181 ahli akademik yang dipilih secara rawak dari semua kolej di UUM. Hasil penyelidikan ini juga menunjukkan bahawa terdapat banyak manfaat dari mengadoptasi teknologi telefon bimbit untuk tujuan perkongsian pengetahuan dalam kalangan ahli-ahli akademik di IPT, dan oleh itu kajian ini adalah satu usaha yang baik dan bermanfaat bagi dunia akademik. Di antara manfaat tersebut, ianya membantu untuk memberi kesedaran tentang pentingnya perkongsian dan pengurusan pengetahuan dalam kalangan ahli-ahli akademik, dan ia juga dapat memberi ilham tentang kaedah dan cara terbaik untuk mengurus pengetahuan, harta intelek, data dan maklumat secara umum. Selain itu, kajian ini mungkin dapat menyedarkan semua pemegang taruh di IPT terhadap peri pentingnya perkongsian pengetahuan. Akhirnya, kajian ini juga berharap untuk mengenalpasti cara dan jalan bagaimana teknologi telefon lebih mudah diakses oleh semua ahli akademik dan mahasiswa dan mungkin dengan kos lebih murah.

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.

Dedication

To My Mother, Ikram Selmi and My Father Bassam Nassuora

To My Dear Wife Kholoud Yousef

To My Dear Children Noor ,Rahaf, Bassam ,Ayah and Jana

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CHAPTER ONE

INTRODUCTION

Introduction and motivation for research, problem statement, research objective, scope of the study, and significance of the research are presented in this chapter. The background information about knowledge sharing in Institutions of Higher Learning and mobile phone technology is also discussed.

1.1 Motivation for Research

Knowledge management (KM) is not a new discipline. In fact, knowledge management has been researched and studied for many years. Currently, there are more than 15 peer-reviewed research journals focusing on aspects of knowledge management, and this proves that knowledge management has existed as an area or disciplines for many years. It serves as an important aspect of any organization regardless of the core business. Today, the total number of knowledge workers is increasing. According to Davenport (2005), it is now estimated that there are almost fifty percent of the workforce in Europe

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