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**User Interface Factors that Influence the Adoption of “*Aplikasi Pangkalan Data Murid*”(APDM): A Case of Secondary Schools at Kubang Pasu
Kedah.**



**MASTER OF SCIENCE (INFORMATION TECHNOLOGY)
UNIVERSITI UTARA MALAYSIA
2017**

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Abstrak

Pada masa kini, Sistem Maklumat Pelajar (SIS) atau dikenali sebagai Aplikasi Pangkalan Data Murid (APDM) telah digunakan secara meluas oleh sekolah serta mendapat perhatian para penyelidik dari pelbagai sudut dan isu. Sebelum menjalankan sebarang kajian mengenai penerimagunaan perisian terhadap pelaksanaan APDM, tindakan segera terhadap isu asas berkaitan dengan faktor yang mempengaruhi penggunaan APDM perlu dilakukan. Faktor penggunaan APDM yang sedia ada belum dibina dan diuji secara menyeluruh dalam perspektif teknikal (Antara Muka Pengguna: Skrin, Pembelajaran, Terminologi, Keupayaan Sistem), sosial (Tanggapan Kebergunaan, Tanggapan Kemudahan), dan tingkah laku (Kepuasan Pengguna). Oleh itu, kajian ini bertujuan untuk mengenal pasti faktor penerimagunaan perisian yang mempengaruhi penerimagunaan APDM di sekolah menengah sekitar Kubang Pasu, Kedah. Satu tinjauan telah dijalankan ke atas 110 orang guru dari lima buah sekolah menengah yang berkenaan. Data dianalisis menggunakan ujian korelasi, analisis varian, dan regresi berganda. Dapatan kajian menunjukkan susun atur skrin APDM adalah faktor yang paling mempengaruhi secara signifikan ke atas Tanggapan Kebergunaan dan Tanggapan Kemudahan. Tanggapan Kebergunaan juga adalah faktor yang paling tinggi mempengaruhi Kepuasan Pengguna terhadap APDM berbanding Tanggapan Kemudahan. Kesimpulannya, para guru beranggapan bahawa susun atur skrin APDM adalah sangat berguna, mengandungi maklumat yang mencukupi, dan mudah untuk dikemudikan. Dapatan kajian ini boleh menyumbang kepada domain pendidikan dalam mengesyorkan kepada pembuat keputusan di Kementerian Pendidikan Malaysia (MOE) untuk penambahbaikan APDM pada masa akan datang.

Kata Kunci: Faktor Penggunaan Perisian, Antara Muka Pengguna, Tanggapan Kebergunaan, Tanggapan Kemudahan, Kepuasan Pengguna

Abstract

Nowadays, Student Information System (SIS) also known as “*Aplikasi Pangkalan Data Murid* (APDM)” is widely used by many schools and getting attention by many researchers in various angles and issues. Before conducting any software adoption study on the implementation of APDM, an immediate action on the basic issues of the adoption factors that influence the APDM usage needs to be performed. The existing APDM adoption factors are not comprehensively constructed and tested in technical (User Interface: Screen, Terminology, Learning and System Capabilities), social (Perceived Usefulness, Perceived Ease of use), and behavioral (User Satisfaction) perspectives. Therefore, this study aims to identify the software adoption factors that influence the adoption of APDM in Kubang Pasu, Kedah secondary schools. A survey was conducted on 110 teachers from five secondary schools. Data were analyzed using correlation, analysis of variance and multiple regression tests. The findings show that the APDM screen layout is the most influential significant factor on Perceived Usefulness and Perceived Ease of Use. In addition, Perceived Usefulness is the most influential factor on User Satisfaction towards APDM as compared to Perceived Ease of Use. In sum, the teachers perceived that the APDM’s screen layout was very helpful, contains adequate information, and easy to navigate. The findings may contribute to the educational domain particularly in recommending decision makers of the Ministry of Education Malaysia (MOE) for APDM future enhancement.

Keywords : Software Adoption Factors, User Interface, Perceived Usefulness, Perceived Ease of Use, User Satisfaction

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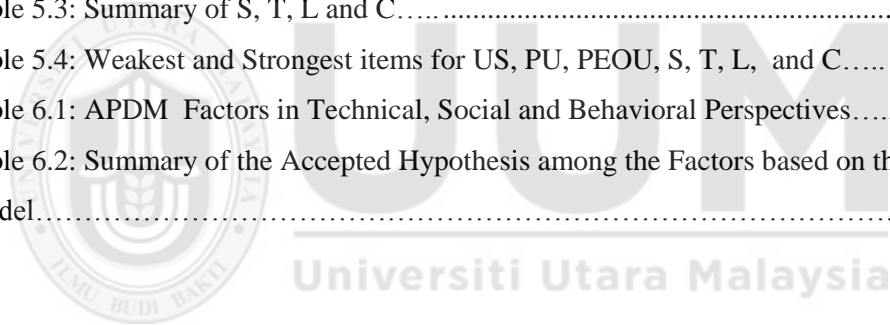
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List of Abbreviations

APDM	<i>Aplikasi Pangkalan Data Murid</i>
BPPDP	<i>Bahagian Perancangan dan Penyelidikan Dasar Pendidikan</i>
EG-HRMIS	Electronic Government Human Resources Management Information System
EMIS	Education Management Information System
EMR	Electronic Medical Records
E-SAS	Electronic Student Academic System
GUI	Graphic User Interface
ICT	Information and Communication Technology
IM	Information Management
IS	Information System
ISIS	Integrated Student Information System
IT	Information Technology
JPA	<i>Jabatan Perkhidmatan Awam Malaysia</i>
JPN	<i>Jabatan Pendidikan Negeri</i>
LMS	Learning Management System
MIS	Management Information System
MOE	Ministry of Education Malaysia
MP-TAM	Multiple Perspective Technology Acceptance Model
PEOU	Perceived Ease of Use
PG	<i>Pengurusan Guru</i>
PM	<i>Pengurusan Murid</i>
PPD	<i>Pejabat Pelajaran Daerah</i>
PS	<i>Pengurusan Sekolah</i>
PU	Perceived Usefulness
SAPS	<i>Sistem Analisis Peperiksaan Sekolah</i>
SIS	Student Information System
SMG	<i>Sistem Maklumat Guru</i>
SMIS	School Management Information System
SMM	<i>Sistem Maklumat Murid</i>
SMPP	<i>Sistem Maklumat Pengurusan Pendidikan</i>
SPS	<i>Sistem Pengurusan Sekolah</i>
SSDM	<i>Sistem Salah Laku Disiplin Murid</i>
SSMS	Smart School Management System
TAM	Technology Acceptance Model
TRA	Theory of Reasoned Action
UI	User Interface
UTAUT	Unified Theory of Acceptance and Use of Technology
QUIS	Questionnaire User Interface Interaction Satisfaction
XML	Extensible Markup Language

CHAPTER ONE

INTRODUCTION

1.1 Overview and Motivation

Nowadays, computer technology plays important roles in education worldwide. Habib Mat Som and Ahmad Kamaluddin Daud (2008) and Ohmae (1995) found that the development of Information Technology (IT) and globalization demolish the national borders in all sectors including education. Meanwhile, Adebayo and Fagbohun (2013) and Abolade and Yusuf (2005) have proven that Information and Communication Technology (ICT) leads as the fundamental tool in any educational system in the current century.

In addition, Mojgan Afshari, Kamariah Abu Bakar, Su, and Saedah Siraj (2012) have also proven that ICT influences the roles of transformational leadership in schools. Earlier, when technology was initially incorporated, Attaran and VanLaar (2001) discovered that school principals act as the technology leaders in influencing the use of presentation software, word processing, and spreadsheets in teaching and learning. The principals also make sure that they know the way to communicate with the broader community using internet applications. Hence, Felton (2006) and Mojgan Afshari et al. (2012) believe that school principals must possess computing capabilities to enable them to catch up with the dynamic progress of ICT in the digital era.

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