



# **SELF-PREDICTED FUTURE USAGE OF MALAYSIAN SCHOOLS STUDENT INFORMATION SYSTEM**

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March 2005

# **SELF-PREDICTED FUTURE USAGE OF MALAYSIAN SCHOOLS STUDENT INFORMATION SYSTEM**

A dissertation submitted in partial fulfilment of the requirements for the award of  
the degree of Master of Science (Information Technology) in the  
Faculty of Information Technology, Universiti Utara Malaysia.

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## ABSTRAK

Kajian ini adalah berkaitan dengan pengukuran persepsi pengguna yang bersifat subjektif terhadap penggunaan Sistem Maklumat Murid (SMM). Buat masa ini, SMM dimanfaatkan dalam bentuk pengumpulan data murid sekolah rendah dari seluruh Negara dan suatu bentuk penilaian dirasakan perlu sebelum hasrat mengembangkan penggunaannya ke semua sekolah menengah di seluruh negara dilaksanakan. Proses pengembangan ini akan melibatkan lebih daripada 9,000 buah sekolah di bawah kelolaan Kementerian Pelajaran Malaysia. Teori-teori penerimaan teknologi maklumat telah dibincangkan dan perbandingan dilakukan terhadap 3 model penerimaan teknologi maklumat; (1) *Theory of Reasoned Action*; (2) *Innovation Diffusion Theory*; dan (3) *Technology Acceptance Model*. Bertitiktolak daripada perbincangan ini, suatu bentuk model kajian telah dihasilkan bagi mengukur tahap penerimaan pengguna terhadap SMM. Soal selidik yang menjurus kepada pengukuran persepsi pengguna terhadap jangkaan kebergunaan dan jangkaan kemudahgunaan digunakan dalam kajian ini. Kajian rintis yang melibatkan 55 orang guru pelatih mendapati kedua-dua skala jangkaan kebergunaan dan jangkaan kebolehgunaan ini mempunyai nilai kebolehpercayaan yang tinggi (Cronbach's Alpha >0.8). Kajian dijalankan melibatkan 92 sampel guru sekolah rendah di negeri Perak. Analisa jawapan soal selidik dibentang dan hasil kajian menunjukkan bahawa SMM diterima oleh pengguna dan mereka berhasrat menggunakannya pada masa hadapan. Hasil kajian juga mendapati tiada perbezaan yang signifikan dalam persepsi pengguna antara jantina, kumpulan umur, dan pengalaman komputer terhadap jangkaan kebergunaan, jangkaan kemudahgunaan, dan ramalan penggunaan masa depan. Hasil korelasi menunjukkan bahawa kedua-dua konstruk jangkaan kebergunaan dan jangkaan kemudahgunaan mempengaruhi ramalan penggunaan masa depan pengguna secara langsung. Dalam konteks kajian ini, keputusan dan dapatan menunjukkan bahawa situasi semasa adalah sesuai bagi melaksanakan pengembangan penggunaan SMM ke sekolah-sekolah menengah.

## ABSTRACT

This report discusses a study that deals with the assessment of users' subjective perception of the Malaysian School Student Information System (MSSIS). Currently, MSSIS is utilized for the collection of data from primary schools throughout the nation and a form of assessment is needed before expanding the system to include secondary schools which will eventually involve more than 9,000 schools under the Education Ministry. Theories of information technology acceptance are discussed and three models of information technology acceptance (Theory of Reasoned Action, Innovation Diffusion Theory, and Technology Acceptance Model) are compared. Based on these discussions, a research model is proposed to measure the acceptance level of the current MSSIS users. Questionnaires aimed at the assessment of users' perceived usefulness and ease of use of information technology, were utilized. Pilot test involving 55 trainee teachers reveals that both usefulness and ease of use scales are highly reliable (Cronbach's Alpha > 0.8). A survey was conducted with a sample of 92 users (primary school teachers) in the state of Perak. The analysis carried out to predict the future usage of MSSIS shows that the system is accepted by its users and by accepting MSSIS; they are willing to use it in future. Test result also shows that gender, age group, and computer experience had no significant influence on users' perceived usefulness, perceived ease of use and self-predicted future usage of MSSIS. Correlation results show that both perceived usefulness and ease of use constructs directly influence future usage of MSSIS. Thus, it is possible to assume that MSSIS can be successfully expanded to secondary school.

## ACKNOWLEDGEMENTS

All praise is due to Allah, Most Gracious, and Most Merciful. Without whose help and mercy, I would not have reached this far.

It would not have been possible for me to complete the program and this study without the support of my family. My first expression of gratitude goes to my loving wife, Hamsiah Hassan and my very dear parents whose love and prayers gave me the strength to complete this course. To my four young children, Mohamad Nazmi, Nur Nadirah, Nur Syafiqah, and Mohamad Syahmi, thank you for understanding your father's life long passion for learning.

I must convey my gratitude to my supervisor, Associate Professor Dr. Norshuhada Shiratuddin for her support, guidance, critical remarks, adherence to correct usage of language, and above all I thank her both for finding time and patience reading my drafts repetitively. Her discussions and help which include those done via electronic mail are very much appreciated.

I thank the Ministry of Education and the Public Services Department of Malaysia for their scholarship, and for the study leave which allowed me to attend the program and for the permission to conduct this study in institutions under the ministry. I am also indebted to the staff of Perak Education Department especially to the Students' Affair Unit for their help and support.

I am also grateful to the Headmasters and their teachers who contributed their time and effort during the study. Thanks are also due to the Director of Maktab Perguruan Perlis and the college's ICT Coordinator, Mr. Sazali bin Saidin for allowing me to use the college's facilities to conduct my pilot study. Also, thank you to the trainee teachers who contributed their time and effort during the pilot study.

I would like to thank my colleagues and friends for their contributions to many moments of insight, inspiration, laughter, and support throughout my completion of the program. Special thanks to my friend Mr. Roslan bin Ahmad for his help and expert views on statistical analysis.

Above all, 'Syukor to Allah' for granting me the time and knowledge to complete my program and this study.

## DEDICATION

To my wife Hamsiah binti Hassan,  
my sons, Mohamad Najmi and Mohamad Syahmi,  
my daughters Nur Nadirah and Nur Syafiqah  
for their love, patience, and support  
as dad spent yet another night  
in front of his TravelMate 290 notebook computer  
and away from home.



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## LIST OF ABBREVIATIONS

CAS	Computerised Application System
CIS	Computerised Information System
DEO	District Education Office
EPRD	Education Planning and Research Division
HCI	Human-computer Interaction
ICT	Information and Communication Technology
IDT	Innovation Diffusion Theory
IS	Information System
IT	Information Technology
MIS	Management of Information System
MMOE	Malaysian Ministry of Education
MSSIS	Malaysian Schools Student Information System
PEOU	Perceived Ease of Use
PU	Perceived Usefulness
SED	State Education Department
SFU	Self-predicted Future Use
TAM	Technology Acceptance Model
TRA	Theory of Reasoned Action
UE	Usability Engineering



## **CHAPTER 1**

### **BACKGROUND OF THE STUDY**

#### **1.1 Introduction**

Regardless of how the term was defined, we have to admit that we are now living in the “information age”. Since 1950s the use of information technologies (IT) has changed radically. IT was initially used to perform manual information work more quickly and more efficiently. Then it was used to manage work better. McNurlin and Sprague (2004) believe that we are now well into the third stage of technology assimilation in which IT makes pervasive changes in the structure and the operation of work, business practices, organizations, industries, and the global economy.

Information technologies and information systems (IS) are considered as important elements in ensuring the well being and success of the world organizations. Cassidy and Cresswell (1997), and Thierauf (1984) cited by Sarwani (2003), believe that the information provided (by information systems) can be combined with human intelligence, intuition and judgment to become an extremely valuable tool for any manager.

The contents of  
the thesis is for  
internal user  
only

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