

I hereby confirm that I have examined this project entitled:
Study Of The Use Behavior Of Student Towards Student Information System (*Sistem
Maklumat Pelajar (SMP)*) With UTAUT 2 Model at UTeM

By

Siti NorFarhana Binti Mohamed Noor

I hereby acknowledge that this project has been accepted as part fulfillment for the
Bachelor of Technology Management (Innovation Technology) with Honours

Signature :

Supervisor : PN. NORRATNA BINTI MASROM

Date :

Signature :

Supervisor : PM. DR. MOHD SYAIFUL RIZAL BIN
ABDUL HAMID

Date :

STUDY OF THE USE BEHAVIOR OF STUDENT TOWARDS STUDENT
INFORMATION SYSTEM (*SISTEM MAKLUMAT PELAJAR (SMP)*) WITH UTAUT 2
MODEL AT UTEM

SITI NORFARHANA BINTI MOHAMED NOOR

Report submitted in fulfillment of the requirement for the Bachelor Degree of
Technology Management (Innovation Technology)

Faculty of Technology Management and Technopreneurship

Universiti Teknikal Malaysia Melaka

JUNE 2018

DECLARATION OF ORIGINAL WORK

I, SITI NORFARHANA BINTI MOHAMED NOOR

“I hereby declare that the work of this exercise is mine except for the quotations and summaries that have been duly acknowledged.”

Signature :

Name : Siti NorFarhana Binti Mohamed Noor

Date :

DEDICATION

This research paper is lovingly dedicated to my lovely father, Encik Mohamed Noor Bin Yusuff and my lovely mother, Puan Hasmah Binti Mamat, who are constantly support and always give constant source of inspiration in my studies. I am honoured to have a both of them as my beloved family and also to all of my family. I am honoured to have them as my family. Thank you for giving me chance to prove and improve myself through all my walk of life. To all my family thank you for believing me for allowing me to further my studies. Lastly a special thanks to my supervisor, panels and my friends for helping me throughout the project towards accomplishing my thesis.

ACKNOWLEDGEMENT

Syukur Alhamdulillah, thank you Allah SWT for giving us the time, patience, and wisdom opportunity to complete this research entitled “Study Of The Acceptance Of Student Information System (*Sistem Maklumat Pelajar (SMP)*) With UTAUT 2 Model at UTeM” to fulfil the compulsory requirements of Universiti Teknikal Malaysia Melaka (UTeM) and the Faculty of Technology Management and Technopreneurship (FPTT). I sincerely appreciate this given opportunity to express the deepest gratitude to those who have made this dissertation possible. I grateful and truly appreciate their kindness in giving thoughtful advices, guidance, suggestion and encouragement.

First and foremost, I would like acknowledge and respectful supervisor, PUAN NORRATNA BINTI MASROM, who has guide and assist me patiently the completion of my project. Her knowledge, expertise, conscientiousness, suggestion and useful comments as well as valuable feedback given have helped me working on completion this research project. Additionally, I would like to thanks my panel PM. DR. MOHD SYAIFUL RIZAL BIN ABDUL HAMID, for being supportive for my research.

Finally, I am express my sincere thanks special to my family members and friends for giving timely advice and all the ways and in all aspect during the this project completion from the beginning till the end. Furthermore, I would like to express my appreciation to all respondents who spend their precious time in helping to fulfil the questionnaires. Without their participants, I could not complete my research project successfully. Once again, I am truly grateful and honestly thankful to all.

ABSTRACT

Student Information System great significance to enhance efficiency in student management and accomplish the updating, instant inquiry and long-term preservation of students' overall development information data including their education background, academic performance and practice. This research was used UTAUT 2 model in order to study about the acceptance of students towards Student Information System. The aim of this research is to investigate the factors that influence the use of behavior of student information system. Besides that, this research is to analyze the most influential factors towards the use of behavior of student information system and also to identify the impacts of the use behavior towards the usage of student information system. A survey was carried out through a set of questionnaire to identify the significant factors of use behavior of students towards Student Information System and to analyze the most influential factor. This research involve 380 respondents to get the complete results. It is involve from the seven faculties in UTeM which is FPTT, FKP, FTMK, FKEKK, FKE, FTK, and FKM from the first year students until fourth year students. The data gathered were analyzed using descriptive analysis. From the data and findings, there are four factors that influence on the use behavior of students which are performance expectancy, effort expectancy, facilitating conditions, and habit. There are two factors that are most influential factors which are performance expectancy and effort expectancy. Thus, it also have the impacts of the use behavior towards the usage of student information system which are giving benefits to the students which are save cost, students get an accurate information, and helps students to meet their needs as a students.

Keywords: Student Information System, UTAUT 2

ABSTRAK

Sistem Maklumat Pelajar mempunyai kepentingan yang besar untuk meningkatkan kecekapan pengurusan pelajar dan mencapai pemantauan segera, pemantauan segera dan pemeliharaan jangka panjang data pembangunan keseluruhan pelajar termasuk latar belakang pendidikan mereka, prestasi dan amalan akademik. Kajian ini menggunakan model UTAUT 2 untuk mengkaji tentang penerimaan pelajar terhadap Sistem Maklumat Pelajar. Tujuan penyelidikan ini adalah untuk mengkaji faktor-faktor yang mempengaruhi penggunaan tingkah laku sistem maklumat pelajar. Selain itu, kajian ini adalah untuk menganalisis faktor-faktor yang paling berpengaruh terhadap penggunaan tingkah laku sistem maklumat pelajar dan juga untuk mengenal pasti kesan penggunaan tingkah laku terhadap penggunaan sistem maklumat pelajar. Satu tinjauan telah dijalankan melalui satu set soal selidik untuk mengenal pasti faktor-faktor penting penggunaan tingkah laku pelajar ke arah Sistem Maklumat Pelajar dan menganalisis faktor yang paling berpengaruh. Kajian ini melibatkan 380 responden untuk mendapatkan hasil yang lengkap. Ia melibatkan tujuh buah fakulti di UTeM iaitu FPTT, FKP, FTMK, FKEKK, FKE, FTK, dan FKM dari pelajar tahun pertama sehingga pelajar tahun keempat. Data yang dikumpul dianalisis menggunakan analisis deskriptif. Dari data dan penemuan, terdapat empat faktor yang mempengaruhi penggunaan tingkah laku para pelajar yang merupakan jangkaan prestasi, jangkaan usaha, keadaan memudahkan, dan kebiasaan. Terdapat dua faktor yang merupakan faktor yang paling berpengaruh iaitu jangkaan prestasi dan jangkaan usaha. Oleh itu, ia juga mempunyai kesan penggunaan tingkah laku terhadap penggunaan sistem maklumat pelajar yang memberikan faedah kepada pelajar yang menjimatkan kos,

pelajar mendapatkan maklumat yang tepat, dan membantu para pelajar untuk memenuhi keperluan mereka sebagai pelajar.

Kata kunci: Sistem Maklumat Pelajar, UTAUT 2

TABLE CONTENT

CHAPTER	TITLE	PAGE NUMBER
	DECLARATION	iii
	DEDICATION	iv
	ACKNOWLEDGEMENT	v
	ABSTRACT	vi
	ABSTRAK	vii
	TABLE OF CONTENT	ix
	LIST OF TABLE	xiv
	LIST OF FIGURES	xvi
CHAPTER 1	INTRODUCTION	
	1.0 Introduction	1
	1.1 Problem Statement	2
	1.2 Research Question	3
	1.3 Research Objective	3
	1.4 Scope, Limitation, Key Assumption	4
	1.4.1 Scope	4
	1.4.2 Limitation	5
	1.4.3 Key Assumption	5
	1.5 Research Significant	5
	1.6 Summary	6

CHAPTER 2	LITERATURE REVIEW	
2.0	Introduction	7
2.1	Student Information System	7
2.1.1	Data Flow Diagram	8
2.2	Use Behavior of the Students	9
2.2.1	Performance Expectancy	10
2.2.2	Effort Expectancy	10
2.2.3	Facilitating Conditions	10
2.2.4	Hedonic Motivation	11
2.2.5	Habit	12
2.3	Theoretical Framework	12
2.4	Conceptual Framework	12
2.5	Hypothesis Development	13
2.6	Measurement of Variable	14
2.7	Summary	15
CHAPTER 3	RESEARCH METHODOLOGY	
3.0	Introduction	16
3.1	Research Design	16
3.1.1	Explanatory Research	17
3.2	Methodological Choice	18
3.2.1	Quantitative Research Method	18
3.2.2	Data Collection	18
3.2.3	Data Sources	19
3.2.3.1	Primary data	19
3.2.3.2	Secondary data	19
3.2.4	Data Analysis	20
3.2.4.1	Statistical Package for Social Science (SPSS)	20
3.2.4.2	Correlation	20

3.2.4.3	Simple Regression Analysis	21
3.2.4.4	Multiple Regression	21
3.3	Research Strategy	22
3.3.1	Development of Instrument	23
3.3.2	Questionnaire Survey	23
3.3.3	Pilot Test	23
3.3.4	Sample Selection	24
3.4	Conceptual Framework	26
3.5	Time Horizon	28
3.5.1	Gantt Chart to Demonstrate Research Activities	29
3.6	Scientific Canons	30
3.6.1	Reliability	30
3.6.2	Construct Reliability	31
3.6.3	Internal Validity	32
3.6.4	External Validity	32
3.7	Summary	32
CHAPTER 4	DATA AND ANALYSIS	
4.0	Introduction	34
4.1	Pilot Test	35
4.1.1	Reliability Analysis	35
4.2	Descriptive Analysis	37
4.3	Respondent Demographic Profile	38
4.3.1	Faculty	38
4.3.2	Current year of study	40
4.3.3	Frequency visiting SMP for this year	41
4.3.4	Difficulties while accessing SMP	42

4.3.5	Rating of satisfaction while using SMP	43
4.3.6	Rating about the look/ layout of the SMP	44
4.3.7	Factors that influence performance expectancy of the SMP towards use behavior of students	45
4.4	Inferential Analysis	46
4.4.1	Pearson Correlation Coefficient	46
4.4.2	Multiple Regression Analysis	48
4.5	Hypothesis Testing	51
4.5.1	Hypothesis 1	51
4.5.2	Hypothesis 2	51
4.5.3	Hypothesis 3	52
4.5.4	Hypothesis 4	53
4.5.5	Hypothesis 5	53
CHAPTER 5	CONCLUSION AND RECOMMENDATION	
5.0	Introduction	55
5.1	Summary of Findings	55
5.2	Discussion and Findings	56
5.2.1	To investigate the factors that influence the use of behavior of students towards Student Information System	56

5.2.2	To analyze the most influential factors towards the use of behavior of student information system	60
5.2.3	To analyze the factors that influence performance expectancy of the SMP towards use behavior of students	61
5.3	Conclusion	62
5.4	Limitations of Study	63
5.5	Recommendations for Future Research	63
	REFERENCES	65
	APPENDICES	67

LIST OF TABLE TABLES

TABLE	ITEM	PAGE NUMBER
3.1	Pearson Correlation Coefficient Range	20
3.2	Quantity of UTeM students for each faculty	25
3.3	Krejcie and Morgan table for determining sample size	25
3.4	Percentage of the total students for each faculty	26
3.5	Gantt Chart to demonstrate research activities	29
4.1	Value of Cronbach's Alpha for pilot test	36
4.2	Descriptive Statistics	37
4.3	Respondent's Faculty	38
4.4	Respondent's Current year of study	40
4.5	Respondent's Frequency visiting SMP for this year	41
4.6	Respondent's difficulties while accessing SMP	42
4.7	Respondent's rating of satisfaction while using SMP	43
4.8	Respondent's rating about the look/ layout of the SMP	44
4.9	Frequency of respondent's rating about the impact towards the use	45
4.10	Rules of thumb out about Correlation Coefficient	47
4.11	Correlation	47

4.12	ANOVA ^a	48
4.13	Coefficients ^a	49

LIST OF FIGURES

FIGURE	ITEM	PAGE NUMBER
2.1	Homepage of Portal Student Information System of UTeM	7
2.2	Conceptual UTAUT 2 model	11
4.1	Cronbach's Alpha Coefficient range and Strength Association	35
4.3	Respondent Faculty	39
4.4	Respondent's Current Year of Study	40
4.5	Respondent's Frequency Visiting SMP for this year	41
4.6	Respondent's Difficulties while Accessing SMP	42
4.7	Respondent's Rating of Satisfaction while using SMP	43
4.8	Respondent's rating about the look/ layout of the SMP	44
4.9	Frequency of respondent's rating about the impact towards the use behavior of students	45
5.1	Coefficient Analysis For Each Factors	57
5.2	Level of Relationship of Factors Use Behavior of students towards Student Information System	60

CHAPTER 1

INTRODUCTION

1.0 Introduction

Universiti Teknikal Malaysia Melaka (UTeM) was established on 1 December 2000 and known as Kolej Universiti Teknikal Kebangsaan Malaysia (KUTKM). On the 1 February 2007, it was rebranding as UTeM. As all the institutes have their own student information system portal in order to easiest for the administration to engage with the student, UTeM was developing their own portal and known as *Sistem Maklumat Pelajar* (SMP) portal.

There are twenty-one public institution higher learning in Malaysia such as Universiti Malaya (UM), Universiti Kebangsaan Malaysia (UKM), Universiti Putera Malaysia (UPM), Universiti Sains Malaysia (USM), and many more. Nowadays, most all of university in Malaysia have their own student information system that is used for student and management of university to manage the data of student and to engage with their student. Student information system is used by the high institution to record all their student data. It contains student details, academic-related sports, course details, curriculum and batch details.

Student Information Management System Provides a simple interface for maintenance of student information (Bharamargoudar et al., 2013). For example, student information system (*Sistem Maklumat Pelajar*) is used by Universiti Teknikal Malaysia Melaka (UTeM), Istudent is used by Universiti Sains Islam Malaysia (USIM), e-comm (community student used by Universiti Malaysia Pahang

(UMP), and etc. The Unified theory of acceptance and use of technology (UTAUT) was proposed in the organizational context, where facilitating conditions have a direct influence on behavior (actual use of technology) (Venkatesh et al., 2003).

The use behavior of the student towards student information system was evaluated using UTAUT 2. The extended unified theory of the acceptance and use of technology (UTAUT 2) provides an explanation for the acceptance and use of ICTs by consumers (Venkatesh et al., 2012). This research will focus on the five elements that include in the UTAUT 2 model which is performance expectancy, effort expectancy, facilitating conditions, hedonic motivation and habit. Through the function of the portal, this is clearly shown that UTeM has the weakness of their portal which causes lower usage by the student in the early of the semester.

1.1 Problem Statement

Through the function of the portal, this is clearly shown that UTeM has the weakness of their portal which causes lower usage by the student in the early of the semester. Due to increase in internet bandwidth and the advance of information technology, student information system is widely being used in higher education institute in Malaysia. Information to deliver to the consumer plays an important role in the growth and development of every organization. From the observation and surveys from students, it is show that they lack of using portal of student information system. From researcher experience, it is clearly show that the function of the portal of student information system make the students highly accessed portal in the end of the semester in order to register their subject courses for the next semester.

In early of semester, students rarely accessing the portal. It is clearly shows that students will accessing this portal because of their function that need for a students to connect their self with this student information system. Even though after students paying a fee of the studies, they infrequently checked it on the portal unless the students does not receive loans from *Perbadanan Tabung Pendidikan Tinggi Nasional* (PTPTN). For those who do not receive the loans, the will check their account whether their fee successfully paid or not because this students need to pay

their fees manually through automated teller machine (ATM) or they can also directly paid at the treasurer's office in the main campus of UTeM. Before the end of the semester, the usage of SMP is higher compared in the early semester. This is because, before the end of the semester, the student will access the portal in order to check their assessment marks for each subject and need to register subjects for the next semester. Therefore, this research study is to discover about the perception of the students about student information system that exists in UTeM.

1.2 Research Questions

There are three research questions that been analyze in order to achieve and fulfill the research objective of this study. This research questions was constructed based on the main aim of the research.

1. What are the factors that influence the use behavior of students towards student information system in UTeM?
2. What are the most influential factors towards the use of behavior of student information system in UTeM?
3. What are the impacts of the use behavior towards the usage of student information system in UTeM?

1.3 Research Objective

In order to achieve the main purpose of this study successfully, there is three research objective has been listed down according to the research requirement. Below are the lists of the objective :

1. To investigate the factors that influence the use behavior of students towards student information system in UTeM.
2. To analyze the most influential factors towards the use of behavior of student information system in UTeM.

3. To identify the impacts of the use behavior towards the usage of student information system in UTeM.

1.4 Scope, Limitation, Key Assumption

1.4.1 Scope

The scope of this research is totally focused on the use behavior of the students about student information system that has been establishing. In order to fulfill the requirement in high institution to manage the data of the student and online engagement of the student to make a transaction for their study such as registration of subject, check assessment of marks for each subject, check co-curricular activities that has been join, to manage the process of internship, cyber-printing and others. Next, this research conducted in Universiti Teknikal Malaysia Melaka (UTeM). UTeM was chosen because all of the UTeM's student familiar and know how to use student information system. Through this researcher can analyze on how student information system function of student information system gives the impacts for students while using student information system. In addition, this study also captures on how engagements of student information system can meet consumer needs. Other than that, researcher could obtain and collect the data from the student university. The researcher makes a survey by using the method of distributing questionnaires to the 300 of the respondents. The sample of the population has been chosen according to the Krejcie and Morgan table in order to determine the size of the sample from the total quantity of UTeM's students. The scope is all of the degree student of UTeM for the seven faculties which are FPTT, FKM, FTK, FKP, FTMK, FKEKK, and FKE.

1.4.2 Limitation

Use behavior of the student towards student information system will be measure by the five component that included in UTAUT 2 model which is performance expectancy, effort expectancy, facilitating condition, hedonic motivation, and habit. The limitation that researcher found in this study does not covered for the master's degree and Doctor of Philosophy (ph.D.) students because its only including for the bachelor's degree and diploma level.

1.4.3 Key Assumption

The researcher assumes that all the respondents will be honest to answer the questionnaire. Besides, the researcher also assumes that respondents give full cooperation during the distributions of questionnaires. In addition, the researcher also assumes this research is useful for the Universiti Teknikal Malaysia Melaka (UTeM) to use this research as references to make the improvement on student information system that available in UTeM. The cooperation from the respondent also one of the limitations that face by the researcher.

1.5 Research Significant

The importance of this study is to study the use behavior towards student information system to the student in order to know that this system being main for student to engage with the management of university. This research refers to the UTAUT 2 model element in order to analyze the acceptance of the students about this system. Through this research, we will figure out the acceptance of students in order to give some benefits to next researcher to make improvements to this system.

1.6 Summary

This is about to found out that the acceptance of the UTeM's student about student information system that available in this university in order to engage with the management of UTeM. This research is important in order to know the acceptance of students towards portal of student information system. The aim of this research is to investigate how UTAUT 2 model can describe consumer perception of using student information system.

CHAPTER 2

LITERATURE REVIEW

2.0 Introduction

This chapter will figure out of literature review from secondary sources about related to the research on discover student perception on student information system. Before proceeding with the primary data, the researcher will refer a relevant information to being state in this sub- topic which suited with this research study . Those theory that relevant to the research topic will be included in this chapter and cited every sentence from the original secondary sources which can achieve the research objective.

2.1 Student Information System

Student Information Management System is of great significance to enhance efficiency in student management and accomplish the updating, instant inquiry and long-term preservation of students' overall development information data including their education background, academic performance and practice (Anjiang, 2015). This system will allow students to view their data in a portal which can access this system through online. These web-based systems provide twenty-four hours and seven days a week for students to access their information such as students' grades,

assessment history data, assessment history activities and others without communication barriers.

According to (Raman and Don, 2013) student information system deals with all kind of student details, academic-related reports, institute details, course details, curriculum, batch details, placement details (hostel) and other resource related details too. This portal enables the user to track all the details of the students result from the first semester to the end of the semester.



Figure 2.1 : Homepage of Portal Student Information System of UTeM

2.1.1 Data Flow Diagram

A Data Flow Diagram (DFD) is a graphical representation of the flow of the student information system portal. DFD will show the interaction between students and the system.