# INFORMATION SYSTEM SUCCESS FACTORS INFLUENCING USER SATISFACTION AT UNIVERSITI TEKNIKAL MALAYSIA MELAKA (UTeM)

#### MUHAMMAD AZRIN BIN ABDUL RAHIM

This report is submitted to

Faculty of Technology Management and Technopreneurship (FPTT)

Universiti Teknikal Malaysia Melaka

In partial fulfilment for Bachelor of Technology Management (Technology Innovation)

Faculty of Technology Management and Technopreneurship (FPTT)

Universiti Teknikal Malaysia Melaka

JUNE 2014

'I acknowledge that I have read this research project and in my opinion this research project is sufficient in terms of scope and quality for the award of Bachelor of Technology Management (Innovation Technology)'

Signature

Supervisor Name

: Dr. YUSRI BIN ARSHAD

Date

24.6.2014

DR. YUSRI BIN ARSHAD Ketua Jabatan

Fakulti Pengurusan Teknologi dan Teknousahawanan Universiti Teknikal Malaysia Melaka

"I declare that all parts of this report are the results of my own work except for the quotations and references, the source of which have been acknowledge in the bibliography"

Signature :.....

Name : MUHAMMAD AZRIN BIN ABDUL RAHIM

Date 24 June 2014

#### DEDICATION

This research project is dedicated to my beloved dad ABDUL RAHIM BIN OSMAN, who taught me that even the largest task can be accomplished if it is done one step at a time and to my beloved mom NORLAILA MOHD YASSIN, who taught me that the best kind of knowledge to have is that which is learned for its own sake.

#### ACKNOWLEDGMENT

First of all, I am very grateful to the Almighty Allah SWT for His blessing, providing me with the ability, time, courage and strength to successfully complete this Projek Sarjana Muda (PSM) within the stipulated time. I sincerely appreciate and thank to my supervisor DR. YUSRI BIN ARSHAD for the help, teaching, monitoring and support. Thanks also to people who involved directly or indirectly in my PSM for the valuable guidance and advices for this report. This research will brought forward as requirements in completing my studies to graduate in Bachelor of Technology Management in Innovation at Universiti Teknikal Malaysia Melaka (UTeM).

Besides, I would like to thank the authority of Universiti Teknikal Malaysia Melaka (UTeM) for providing me with a lot of information needed and facilities to complete this research. In addition, I would also like to thank to all the staff of Fakulti Pengurusan Teknologi dan Teknousahawanan (FPTT) of UTeM.

Last but not least, an honorable mention goes to my beloved family especially my mom and dad, not forgetting my friends for their understandings and support in completing this research. Without helps of them mention above, I would face many difficulties while doing this research. Thank you very much for sharing the kindness.

#### ABSTRACT

User satisfaction is generally being recognized as one of the most important steps to ensure the success of an information system. Follow development of the IS component, there is a significant changes occur in information technology, especially with the high intensity growth of the Internet. One of the benefits is the ability to use information systems to share information. Information can be shared not only by all users in the university, but information can also be shared with parties outside the university. The main objective of this study is to investigate the impacts of IS success factors towards the user satisfaction in Universiti Teknikal Malaysia Melaka (UTeM). Moreover, the study will discuss the relationship between the dependent variable (user satisfaction) and the independent variable (system quality, information quality, service quality and system use). For this study, survey strategy had been taken as that research strategy because it will be perfect match for this research. The great strength of the survey as a primary data collecting approach is it versatility. The data analysis will involve the interpretation of the data and the testing of the hypotheses. The discussion will discuss on each of the research result objective that will determine the relationship for each variables and lastly is the discussion about the most factor that influences the user satisfaction. Lastly, the conclusion will discuss on the contribution of this study with recommendations for further studies. The study will be of significant value to the Information system users in UTeM in particular because it analyses the existing factors associated with the user satisfaction.

#### ABSTRAK

Kepuasan pengguna secara umumnya diiktiraf sebagai salah satu langkah yang paling penting untuk memastikan kejayaan sistem maklumat. Ikut pembangunan komponen IS, terdapat satu perubahan yang ketara berlaku dalam teknologi maklumat, terutamanya dengan pertumbuhan intensiti yang tinggi Internet. Salah satu faedah adalah keupayaan untuk menggunakan sistem maklumat untuk berkongsi maklumat Maklumat boleh dikongsi bukan sahaja oleh semua pengguna di universiti, tetapi maklumat juga boleh dikongsi dengan pihak-pihak di luar universiti. Objektif utama kajian ini adalah untuk menyiasat kesan faktor-faktor kejayaan IS terhadap kepuasan pengguna di Universiti Teknikal Malaysia Melaka (UTeM). Selain itu, kajian ini akan membincangkan perhubungan antara pemboleh ubah bersandar (kepuasan pengguna) dan pembolehubah bebas (kualiti Sistem, kualiti maklumat, kualiti perkhidmatan dan system penggunaan). Untuk kajian ini, strategi kajian telah diambil sebagai strategi penyelidikan kerana ia akan menjadi perlawanan yang sempurna untuk kajian ini. Kekuatan besar kajian sebagai satu pendekatan mengumpul data utama adalah ia serba boleh. Analisis data akan melibatkan tafsiran data dan pengujian hipotesis. Perbincangan akan membincangkan setiap satu daripada objektif hasil penyelidikan yang akan menentukan hubungan bagi setiap pembolehubah dan akhir sekali ialah perhincangan mengenai faktor yang paling yang mempengaruhi kepuasan pengguna. Akhir sekali, kesimpulan akan membincangkan mengenai sumbangan kajian ini dengan cadangan untuk kajian lanjutan. Kajian itu akan mempunyai nilai yang ketara kepada pengguna sistem Maklumat dalam UTeM khususnya kerana ia menganalisis faktorfaktor yang sedia ada yang berkaitan dengan kepuasan pengguna.

# CONTENT

CHAPTER	TITI	LE	PAGE
	APP	ROVAL	ĭ
	DEC	CLARATION	iii
	DED	DICATION	iv
	ACK	NOWLEDGEMENT	v
	ABT	RSACT	vi
	ABS	TRAK	vii
	CON	NTENT	viii
	LIST OF FIGURES AND TABLES		xi
	LIST OF ABBREAVIATION		xiii
	LIST OF SYMBOLS		xiv
	LIST	T OF APPENDICES	xv
CHAPTER 1	INT	RODUCTION	1
	1.1	Background of the Study	1
	1.2	Problem Statement	2
	1.3	Research Objective	3
	1.4	Research Questions	3
	1.5	Scope and limitations of Study	4
	1.6	Significance of Study	5
	1.7	Summary	6

CHAPTER 2	LITE	RATURE REVIEW	7
	2.1	Introduction	7
	2.2	Definition of Terms	8
	2.2.1	Information System	8
	2.2.2	User Satisfaction	10
	2.3	Key factors contributing to IS Success	11
	2.3.1	System Quality	11
	2.3.2	Information Quality	13
	2.3.3	Service Quality	14
	2.3.4	System Use	15
	2.4	Summary	17
CHAPTER 3	THEORETICAL FRAMEWORK		18
	3.1	Introduction	18
	3.2	Research Framework	19
	3.3	System Quality	20
	3.4	Information Quality	21
	3.5	Service Quality	22
	3.6	System Use	23
	3.7	Hypotheses Development	24
	3.8	Summary	24
CHAPTER 4	RESI	EARCH METHODOLOGY	25
	4.1	Introduction	25
	4.2	Research Design	26
	4.3	Quantitative Method	26
	4.4	Data Collection Method	27

	4.5	Validity And Reliability	27
	4.6	Questionnaire Development	29
	4.7	Pilot Study	30
	4.8	Data Analysis Techniques	31
	4.9	Summary	31
CHAPTER 5	DAT	A ANALYSIS AND FINDINGS	
	5.1	Introduction	32
	5.2	Preliminary Analysis	32
	5.3	Demographics Data	32
	5.4	Normality Test and Reliability Test	33
	5.5	Inferential Analysis	36
	5.6	Multiple Regression	41
	5.7	Bivariate Analysis	45
	5.8	Summary	47
CHAPTER 6	DISC	CUSSION OF RESEARCH FINDINGS	49
	6.1	Introduction	50
	6.2	Discussion of Research Findings	50
	6.3	Discussion Research Objective 1	50
	6.4	Discussion Research Objective 2	51
	6.5	Summary	55
			56
CHAPTER 7	CON	NCLUSION AND RECOMMENDATION	
	7.1	Introduction	57
	7.2	Contribution of the Study	57
	7.3	Limitations of the Study	57

7.4	Recommendation for future research	58
7.5	Summary	58
		59
BIBI	LIOGRAPHY	
APP	ENDICES	60
		65

# LIST OF FIGURES AND TABLES

	TITLE	PAGE
Figures:		
Figure 3.1	Research Framework	19
Table:		
Table 5.1	Demographic Data - Age groups	33
Table 5.2	Demographic Data – Gender groups	34
Table 5.3	Demographic Data – Educational Level	34
Table 5.4	Demographic Data - Faculty/ Centre	35
Table 5.5	Demographic Data – Experience Use	36
Table 5.6	Cronbach's α (Hair & Sekaran, 2003)	37
Table 5,7	Cronbach's α of System Quality	37
Table 5.8	Cronbach's α of Information Quality	38
Table 5.9	Cronbach's α of Service Quality	39
Table 5.10	Cronbach's a of System Use	39
Table 5.11	Cronbach's α of User Satisfaction	40
Table 5.12	Summary of Descriptives, Normality and Reliability	41
	Measures	
Table 5.13	Correlation between System Quality and User	42
	Satisfaction	
Table 5.14	Correlation between Information Quality and User	43
	Satisfaction	

Table 5.15	Correlation between Service Quality and User
	Satisfaction
Table 5.16	Correlation between System Use and User Satisfaction
Table 5.17	Multiple Regressions for Independent Variable
Table 5.18	Model Summary
Table 5.19	ANOVA <sup>a</sup>
Table 5.20	Coefficients <sup>a</sup>
Table 5.21	Bivariate Analysis between Variables
Table 6.1	Correlation between System Quality and User
	Satisfaction
Table 6.2	Correlation between Information Quality and User
	Satisfaction
Table 6.3	Correlation between Service Quality and User
	Satisfaction
Table 6.4	Correlation between System Use and User Satisfaction
Table 6.5(a)	Model Summary
Table 6.5(b)	Coefficients <sup>a</sup> Test for Independent Variables

#### LIST OF ABBREAVIATIONS

IS – Information System

IT – Information Technology

SERVQUAL - Service Quality

SPSS -- Statistical Package for Social Sciences

UTeM – Universiti Teknikal Malaysia Melaka

#### LIST OF SYMBOLS

P = Significant Value

B = Beta

 $\leq$  = Less than and equal to

 $\geq$  = More than and equal to

% = Percentage

N = Total Numbers

R = Coefficient of Correlation

 $R^2$  = Coefficient of determination

Sig. = Significant

### LIST OF APPENDICES

NO.	TITLE	PAGE
A	Questionnaires	65

#### DEDICATION

This research project is dedicated to my beloved dad ABDUL RAHIM BIN OSMAN, who taught me that even the largest task can be accomplished if it is done one step at a time and to my beloved mom NORLAILA MOHD YASSIN, who taught me that the best kind of knowledge to have is that which is learned for its own sake.

#### ACKNOWLEDGMENT

First of all, I am very grateful to the Almighty Allah SWT for His blessing, providing me with the ability, time, courage and strength to successfully complete this Projek Sarjana Muda (PSM) within the stipulated time. I sincerely appreciate and thank to my supervisor DR. YUSRI BIN ARSHAD for the help, teaching, monitoring and support. Thanks also to people who involved directly or indirectly in my PSM for the valuable guidance and advices for this report. This research will brought forward as requirements in completing my studies to graduate in Bachelor of Technology Management in Innovation at Universiti Teknikal Malaysia Melaka (UTeM).

Besides, I would like to thank the authority of Universiti Teknikal Malaysia Melaka (UTeM) for providing me with a lot of information needed and facilities to complete this research. In addition, I would also like to thank to all the staff of Fakulti Pengurusan Teknologi dan Teknousahawanan (FPTT) of UTeM.

Last but not least, an honorable mention goes to my beloved family especially my mom and dad, not forgetting my friends for their understandings and support in completing this research. Without helps of them mention above, I would face many difficulties while doing this research. Thank you very much for sharing the kindness.

#### ABSTRACT

User satisfaction is generally being recognized as one of the most important steps to ensure the success of an information system. Follow development of the IS component, there is a significant changes occur in information technology, especially with the high intensity growth of the Internet. One of the benefits is the ability to use information systems to share information. Information can be shared not only by all users in the university, but information can also be shared with parties outside the university. The main objective of this study is to investigate the impacts of IS success factors towards the user satisfaction in Universiti Teknikal Malaysia Melaka (UTeM). Moreover, the study will discuss the relationship between the dependent variable (user satisfaction) and the independent variable (system quality, information quality, service quality and system use). For this study, survey strategy had been taken as that research strategy because it will be perfect match for this research. The great strength of the survey as a primary data collecting approach is it versatility. The data analysis will involve the interpretation of the data and the testing of the hypotheses. The discussion will discuss on each of the research result objective that will determine the relationship for each variables and lastly is the discussion about the most factor that influences the user satisfaction. Lastly, the conclusion will discuss on the contribution of this study with recommendations for further studies. The study will be of significant value to the Information system users in UTeM in particular because it analyses the existing factors associated with the user satisfaction.

#### ABSTRAK

Kepuasan pengguna secara umumnya diiktiraf sebagai salah satu langkah yang paling penting untuk memastikan kejayaan sistem maklumat. Ikut pembangunan komponen IS. terdapat satu perubahan yang ketara berlaku dalam teknologi maklumat terutamanya dengan pertumbuhan intensiti yang tinggi Internet. Salah satu faedah adalah keupayaan untuk menggunakan sistem maklumat untuk berkongsi maklumat Maklumat holeh dikongsi bukan sahaja oleh semua pengguna di universiti, tetapi maklumat juga boleh dikongsi dengan pihak-pihak di luar universiti. Objektif utama kajian ini adalah untuk menyiasat kesan faktor-faktor kejayaan IS terhadap kepuasan pengguna di Universiti Teknikal Malaysia Melaka (UTeM). Selain itu, kajian ini akan membincangkan perhubungan antara pemboleh ubah bersandar (kepuasan pengguna) dan pembolehubah bebas (kualiti Sistem, kualiti maklumat, kualiti perkhidmatan dan system penggunaan). Untuk kajian ini, strategi kajian telah diambil sebagai strategi penyelidikan kerana ia akan menjadi perlawanan yang sempurna untuk kajian ini Kekuatan besar kajian sebagai satu pendekatan mengumpul data utama adalah ia serba boleh. Analisis data akan melibatkan tafsiran data dan pengujian hipotesis. Perbincangan akan membincangkan setiap satu daripada objektif hasil penyelidikan yang akan menentukan hubungan bagi setiap pembolehubah dan akhir sekali talah perbincangan mengenai faktor yang paling yang mempengaruhi kepuasan pengguna. Akhir sekali, kesimpulan akan membincangkan mengenai sumbangan kajian ini dengan cadangan untuk kajian lanjutan. Kajian itu akan mempunyai nilai yang ketara kepada pengguna sistem Maklumat dalam UTeM khususnya kerana ia menganalisis faktorfaktor yang sedia ada yang berkaitan dengan kepuasan pengguna.

# CONTENT

CHAPTER	TITLE		PAGE
	APP	ROVAL	i
	DEC	CLARATION	iii
	DED	DICATION	iv
	ACK	KNOWLEDGEMENT	v
	ABT	RSACT	vi
	ABS	TRAK	vii
	CON	NTENT	viii
	LIST OF FIGURES AND TABLES		xi
	LIST OF ABBREAVIATION		xiii
	LIST OF SYMBOLS		xiv
	LIST	T OF APPENDICES	XV
CHAPTER 1	INT	RODUCTION	i
	1.1	Background of the Study	1
	1.2	Problem Statement	2
	1.3	Research Objective	2 3
	1.4	Research Questions	3
	1.5	Scope and limitations of Study	4
	1.6	Significance of Study	5
	1.7	Summary	6

CHAPTER 2	LITE	CRATURE REVIEW	7
	2.1	Introduction	7
	2.2	Definition of Terms	8
	2.2.1	Information System	8
	2.2.2	User Satisfaction	10
	2.3	Key factors contributing to IS Success	11
	2.3.1	System Quality	11
	2.3.2	Information Quality	13
	2.3.3	Service Quality	14
	2.3.4	System Use	15
	2.4	Summary	17
CHAPTER 3	THEORETICAL FRAMEWORK		18
	3.1	Introduction	18
	3.2	Research Framework	19
	3.3	System Quality	20
	3.4	Information Quality	21
	3.5	Service Quality	22
	3.6	System Use	23
	3.7	Hypotheses Development	24
	3.8	Summary	24
CHAPTER 4	RESI	EARCH METHODOLOGY	25
	4.1	Introduction	25
	4.2	Research Design	26
	4.3	Quantitative Method	26
	4.4	Data Collection Method	27

	4.5	Validity And Reliability	27
	4.6	Questionnaire Development	29
	4.7	Pilot Study	30
	4.8	Data Analysis Techniques	31
	4.9	Summary	31
CHAPTER 5	DAT	A ANALYSIS AND FINDINGS	
	5.1	Introduction	32
	5.2	Preliminary Analysis	32
	5.3	Demographics Data	32
	5.4	Normality Test and Reliability Test	33
	5.5	Inferential Analysis	36
	5.6	Multiple Regression	41
	5.7	Bivariate Analysis	45
	5.8	Summary	47
CHAPTER 6	DISC	CUSSION OF RESEARCH FINDINGS	49
	6.1	Introduction	50
	6.2	Discussion of Research Findings	50
	6.3	Discussion Research Objective 1	50
	6.4	Discussion Research Objective 2	51
	6.5	Summary	55
			56
CHAPTER 7	CON	NCLUSION AND RECOMMENDATION	
	7.1	Introduction	57
	7.2	Contribution of the Study	57
	73	Limitations of the Study	57

7.4	Recommendation for future research	58
7.5	Summary	58
		59
BIBI	LIOGRAPHY	
APP	ENDICES	60
		65