

AN ACCEPTANCE MODEL FOR  
CONTRIBUTING FACTORS OF CONTINUOUS  
INTENTION TO USE E-LEARNING SYSTEMS  
IN OMAN HIGHER EDUCATION  
INSTITUTIONS

RAGAD M TAWAFK

DOCTOR OF PHILOSOPHY

UNIVERSITI MALAYSIA PAHANG



## **SUPERVISOR'S DECLARATION**

We hereby declare that We have checked this thesis and, in our opinion, this thesis is adequate in terms of scope and quality for the award of the degree of Doctor of Philosophy.

---

(Supervisor's Signature)

Full Name : TS. DR. AWANIS ROMLI

Position : SENIOR LECTURER

Date : 8 JULY 2020

---

(Co-supervisor's Signature)

Full Name : PROF. DR. RUZAINI BIN ABDULLAH ARSHAH

Position : PROFESSOR

Date : 8 JULY 2020



## STUDENT'S DECLARATION

I hereby declare that the work in this thesis is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at Universiti Malaysia Pahang or any other institutions.

A handwritten signature in blue ink, appearing to read 'Ragad M Tawafak', is written over a horizontal line.

(Student's Signature)

Full Name : RAGAD M TAWAFAK

ID Number : PCC16019

Date : 8 JULY 2020

AN ACCEPTANCE MODEL FOR CONTRIBUTING FACTORS OF  
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RAGAD M TAWAFK

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## ABSTRAK

E-pembelajaran telah menjadi salah satu pendekatan yang paling ketara dalam bidang pendidikan. Walau bagaimanapun, e-pembelajaran berhadapan dengan beberapa masalah seperti kesukaran kursus, pengetahuan subjek guru dan jenis penggunaan teknologi yang terhad yang mempengaruhi niat berterusan pelajar untuk menggunakan e-pembelajaran. Kejayaan sistem e-pembelajaran bergantung pada bagaimana pembelajaran berlangsung, penyebaran faktor penilaian sokongan, niat tingkah laku, dan persepsi pelajar untuk digabungkan untuk niat berterusan untuk menggunakan sistem e-pembelajaran. Penyelidikan ini juga berpendapat bahawa sistem e-pembelajaran yang digunakan untuk mengesahkan hasil pembelajaran pelajar seperti keberkesanan, prestasi akademik, kepuasan pelajar, dan penggunaan sistem. Tinjauan literatur mengenai niat berterusan untuk menggunakan sistem e-pembelajaran menunjukkan bahawa bidang ini masih dalam tahap awal kerana banyak kajian yang difokuskan untuk menilai sistem e-pembelajaran dari satu model penerimaan daripada meningkatkan kombinasi faktor dari banyak teori penerimaan model e-pembelajaran untuk tujuan penggunaan berterusan. Tujuan kajian ini adalah untuk mencari model penerimaan faktor penyumbang yang mempengaruhi niat berterusan untuk menggunakan sistem e-pembelajaran. Penyelidikan ini mencadangkan penggabungan secara berkesan semua hasil sistem e-pembelajaran untuk mengenal pasti faktor penyumbang untuk niat berterusan untuk menggunakan sistem e-pembelajaran. Oleh itu, objektif utama kajian ini adalah untuk mengembangkan model penerimaan faktor penyumbang untuk niat berterusan untuk menggunakan sistem e-pembelajaran. Kajian ini memberi tumpuan untuk memahami semua faktor yang mempengaruhi yang berkaitan dengan penggunaan berterusan system E-pembelajaran dengan mengkaji kemungkinan faktor yang digunakan dalam model penerimaan sebelumnya seperti Technology Acceptance Model (TAM), Task-Technology Fit (TTF) serta Expectation terpilih- Teknologi Pengesahan (ECT) dan lain-lain. Untuk mengembangkan model, faktor dari TAM, TTF dan juga faktor ECT terpilih digabungkan dalam Model Penerimaan kepada faktor bebas dan bergantung yang dikenal pasti. Model penerimaan dirumuskan berdasarkan tinjauan model sebelumnya dengan faktor bergantung dan bebas. Untuk menguji model, empat universiti Oman telah dipilih sebagai kajian kes. Data dikumpulkan menggunakan borang soal selidik yang dikembalikan oleh 295 pelajar untuk menilai maklum balas mereka mengenai system e-pembelajaran, setelah itu Partial Least Squares-Structural Equation Modeling (PLS-SEM) digunakan untuk menilai hipotesis model penerimaan yang dikembangkan untuk meningkatkan niat berterusan untuk menggunakan e-pembelajaran. Hasil dari data tinjauan menunjukkan bahawa 12 dari 16 hipotesis menunjukkan bahawa faktor bebas dan bersandar adalah penting untuk niat berterusan untuk menggunakan sistem e-pembelajaran di Institusi Pengajian Tinggi. Penyelidikan ini menunjukkan keperluan untuk mengembangkan model penerimaan untuk faktor penyumbang niat berterusan untuk menggunakan sistem e-pembelajaran untuk institusi pendidikan tinggi Oman yang dapat dilaksanakan untuk peningkatan masa depan untuk model e-pembelajaran.

## ABSTRACT

E-learning has become one of the most significant approaches in the educational area. However, e-learning is faced with several problems such as course difficulty, teacher-subject knowledge and limited types of technology integration used that affect students' continuous intention to use e-learning. The success of the e-learning system depends on how the learning takes place, the deployment of factors of support assessment, behavior intention and student perceptions to be combined for continuous intention to use the e-learning system. This research also argues that e-learning systems used to validate learners' learning outcome such as effectiveness, academic performance, student satisfaction, and system use. A review of the literature on the continuous intention to use e-learning systems shows that this area is still in its infancy as many studies focused on assessing e-learning systems from one acceptance model rather than enhancing the combination of factors from many theories of acceptance e-learning models for the continuous intention of use. The purpose of this study is to find the acceptance model of contributing factors that affect the continuous intention to use e-learning systems. This research proposes on merging effectively all e-learning systems outcome to identify the contributing factors for continuous intention to use the e-learning system. Therefore, the main objective of this study is to develop an acceptance model contributing factors for the continuous intention to use the e-learning systems. This study focuses on understanding all influencing factors that related to the continuous use of e-learning system by studying the possible factors used in previous acceptance models such as Technology Acceptance Model (TAM), Task-Technology Fit (TTF) as well as selected Expectation-Confirmation Technology (ECT) and others. To develop the model, factors from TAM, TTF as well as selected ECT factors were combined in the Acceptance Model to the identified independent and dependent factors. An acceptance model was formulated based on the previous model's reviews with dependent and independent factors. To test the model, four (4) Oman universities have been selected as a case study. Data were collected using questionnaires that were returned by 295 undergraduates to assess their feedback on e-learning system, after which Partial Least Squares-Structural Equation Modelling (PLS-SEM) was employed to evaluate the hypotheses of the developed acceptance model to improve continuous intention to use e-learning system. Results from the survey data show that 12 of 16 hypotheses suggested that the independent and dependent factors are significant for the continuous intention to use e-learning system in higher education institutions. This research reveals the need to develop an acceptance model for contributing factors of continuous intention to use e-learning system for Oman higher education institutions that could be implemented for future enhancement for e-learning models.

## TABLE OF CONTENTS

<b>DECLARATION</b>	
<b>TITLE PAGE</b>	
<b>ACKNOWLEDGEMENTS</b>	<b>ii</b>
<b>ABSTRAK</b>	<b>iii</b>
<b>ABSTRACT</b>	<b>iv</b>
<b>TABLE OF CONTENTS</b>	<b>v</b>
<b>LIST OF TABLES</b>	<b>ix</b>
<b>LIST OF FIGURES</b>	<b>x</b>
<b>LIST OF SYMBOLS</b>	<b>xi</b>
<b>LIST OF ABBREVIATIONS</b>	<b>xii</b>
<b>CHAPTER 1 INTRODUCTION</b>	<b>1</b>
1.1 Background	1
1.2 Research Motivation	4
1.3 Problem Statement	6
1.4 Research Question	7
1.5 Research Objectives	8
1.6 Scope	8
1.7 Thesis Outline	9
<b>CHAPTER 2 LITERATURE REVIEW</b>	<b>11</b>
2.1 Introduction	11
2.2 E-learning In Higher Education Institution	12



2.2.1	E-Learning System	15
2.2.2	E-learning System Acceptance	17
2.3	Background of Acceptance Models	24
2.3.1	Technology Acceptance Model (TAM)	26
2.3.2	Expectation-Confirmation Theory (ECT)	30
2.3.3	Task-Technology Fit (TTF)	31
2.3.4	Unified Theory of Acceptance and Use of Technology (UTAUT)	33
2.3.5	Theory of Planned Behaviour (TPB)	34
2.4	Related Theories and Models used in Prior Studies	36
2.5	Factors Used in This Study	40
2.5.1	Perceived Usefulness (PU)	42
2.5.2	Perceived Ease of Use (PEOU)	43
2.5.3	Course Content (CC)	44
2.5.4	Teacher-Subject Knowledge (TSK)	44
2.5.5	Interactivity (INT)	45
2.5.6	Technology Integration (TI)	46
2.5.7	Behaviour Intention (BI)	48
2.5.8	Academic Performance (AP)	49
2.5.9	Support Assessment (SA)	50
2.5.10	Student Satisfaction (SS)	51
2.5.11	Effectiveness (EFF)	52
2.5.12	Continuous Intention to Use (CI)	53
2.6	Extracting Causal Relationship between Factors	54
2.7	Factors Attributes	56
2.8	Summary	58

<b>CHAPTER 3 RESEARCH METHODOLOGY</b>	<b>59</b>
3.1 Introduction	59
3.2 Rationale	59
3.3 Research Paradigms	60
3.4 Research Operational Framework	61
3.4.1 Phase 1: Theoretical Foundation	61
3.4.2 Phase 2: Development of Research Model and Instrument	62
3.4.3 Phase 3: Research Validation	77
3.4.4 Phase 4: Main Research and Hypotheses Testing	79
i. Communication Skills	86
ii. E-Learning System Integration	86
3.5 Summary	87
<b>CHAPTER 4 RESULTS AND DISCUSSION</b>	<b>88</b>
4.1 Introduction	88
4.2 Data Analysis	88
4.2.1 Sample Size	88
4.2.2 Missing Data	89
4.2.3 Outlier	89
4.2.4 Test of Multi-variant Normality	89
4.2.5 Test of Multi-collinearity	89
4.3 Participant Demographics	90
4.4 Construct Validity	93
4.4.1 Evaluation of Reliability and Convergent Validity	93
4.4.2 Data Screening and Measurement Model	95
4.4.3 Validation of Structural Model and Hypotheses Testing	104

4.5	Discussion	109
4.5.1	Path Value Results	109
4.5.2	Predictive Relevance $Q^2$ and $F^2$	114
4.5.3	Theoretical Effect of the Acceptance Model	115
4.5.4	The Effect of TAM	115
4.5.5	The Effect of Independent Factors and Effectiveness	116
4.5.6	The Effect of Interactivity and Behaviour Intention	116
4.5.7	Continuous Intention to Use	117
4.6	Practical Effect of the Model	117
4.7	Summary	118
<b>CHAPTER 5 CONCLUSION, IMPLICATION AND FUTURE WORK</b>		<b>119</b>
5.1	Introduction	119
5.2	Research Conclusion	119
5.3	Research Contributions	123
5.4	Implications	125
5.4.1	Theoretical Implications	125
5.4.2	Practical Implication	126
5.5	Limitations and Recommendations for Future Research	126
<b>REFERENCES</b>		<b>128</b>
<b>APPENDIX A REVIEWER COMMENTS ON INITIAL QUESTIONNAIRE</b>		<b>145</b>
<b>APPENDIX B FINAL VALIDATED QUESTIONNAIRE</b>		<b>150</b>
<b>APPENDIX C</b>		<b>154</b>
<b>APPENDIX D</b>		<b>165</b>
<b>LIST OF PUBLICATIONS</b>		<b>170</b>

## LIST OF TABLES

Table 2.1	Summarised studies for assistance derived factors	21
Table 2.2	Relevant Theories for Continuous Intention to Use E-learning System in HEI	24
Table 2.3	Summary of Most Frequently Referred Factors	41
Table 2.4	Causal Relationships from Literature	55
Table 2.5	Independent Factor Attributes	57
Table 3.1	Phase 1 Deliverables from Activities	62
Table 3.2	Phase 2 Deliverables from Activities	62
Table 3.3	Factors identified according to type and Citation	66
Table 3.4	List of Measures for Acceptance Model	72
Table 3.5	List of Version 2 Measures for Acceptance Model	74
Table 3.6	Expert Evaluator Profiles of Initial Questionnaire	76
Table 3.7	Phase 3 Deliverables from Activities	77
Table 3.8	Expert Evaluator Profiles of Version 2 Questionnaire	78
Table 3.9	Pilot Study Statistical Package for the Social Sciences (SPSS) Evaluation	79
Table 3.10	Phase 4 Deliverables from Activities	80
Table 3.11	Summary of Research Operational Framework	83
Table 4.1	Demographic characteristics of participants	90
Table 4.2	Data analysis indicator of participants	93
Table 4.3	Item loading and reliability	95
Table 4.4	Fornell Larcker Criterion	98
Table 4.5	HTMT Heterotrait-Monotrait	100
Table 4.6	R <sup>2</sup> value of model constructs	105
Table 4.7	F <sup>2</sup> statistical test	107
Table 4.8	Bootstrapping mean, Stdev, T-test, P-values, bias, supporting	108
Table 4.9	Path coefficient and $\beta$ results	112
Table 4.10	Path coefficient, $f^2$ and $Q^2$ results	114
Table 5.1	Summarized research objectives, research questions, and hypotheses	122

## LIST OF FIGURES

Figure 2.1	Path map of Chapter 2	12
Figure 2.2	Demand-Driven Learning Model (DDLDM)	13
Figure 2.3	Equity Education: Schools as Agents as Mobility and changes	13
Figure 2.4	Technology Acceptance Model (TAM)	26
Figure 2.5	Adopted TAM2 and TAM3	28
Figure 2.6	Expectation-Confirmation Theory (ECT)	30
Figure 2.7	Task Technology Fit (TTF)	32
Figure 2.8	Unified Theory of Acceptance and Use of Technology (UTAUT)	33
Figure 2.9	Theory of Planned Behaviour (TPB)	34
Figure 2.10	Research Intention to Use Composite Factors	37
Figure 2.11	Research Model of Effectiveness Relationship to Continuous use	37
Figure 2.12	Research Model for Continuous Intention	38
Figure 2.13	Research Model of Continuous Use Impacts	39
Figure 2.14	Population Chart of 34 Studies	42
Figure 3.1	The Research Operational Framework	61
Figure 3.2	Research Conceptual of Acceptance Model	64
Figure 4.1	Acceptance Model distribution of items	92
Figure 4.2	Composite Reliability Diagram	96
Figure 4.3	Average Variance Extracted (AVE) Diagram	96
Figure 4.4	rho_A Diagram	96
Figure 4.5	Heterotrait-Monotrait Ratio (HTMT)	99
Figure 4.6	Original Model Loading Factors	101
Figure 4.7	Adopted Model Item Loading Results	102
Figure 4.8	Path Coefficient Histogram	103
Figure 4.9	R <sup>2</sup> Test	106
Figure 4.10	F <sup>2</sup> Test	106
Figure 4.11	The Modified Model after deleted not supported hypotheses	113

## LIST OF SYMBOLS

A	Alpha Cronbach's'
B	Bias
F	Function error
H	Hypothesis
O	Original value
P	Path value
Q	Quadratic error
R	Regression Coefficient values
T	Testing value

## LIST OF ABBREVIATIONS

AP	Academic Performance
BI	Behavior Intention
BUC	Buraimi University College
CC	Course Content
CFA	Confirmatory Factor Analysis
CI	Continuous Intention
ECT	Expectation-Confirmation Technology
E-Learning	Electronic Learning
GCC	Gulf Cooperation Council
GPA	Grade Point Average
HEI	Higher Education Institution
HTMT	Heterotrait-Monotrait Ratio
INT	Interactivity
IS	Information System
IT	Information Technology
MOOC	Massive Open Online Courses
Moodle	Modular Object-Oriented Dynamic Learning Environment
PEOU	Perceived Ease of Use
PLS	Partial Least Square
PU	Perceived Usefulness
R <sup>2</sup>	Coefficient
SA	Support Assessment
SEM	Structural Equation Model
SLO	Student Learning Outcomes
SPSS	Statistical Package for the Social Sciences
SQU	Sultan Qaboos University
SS	Student Satisfaction
T3	Teaching, Transforming, And Technology
TAM	Technology Acceptance Model
TI	Technology Integration
TPB	Theory of Planned Behavior
TRA	Theory of Reasoned Action
TSK	Teacher-Subject Knowledge
TTF	Task- Technology Fit
UoB	University of Buraimi
UTAUT	Unified Theory of Acceptance and Use of Technology

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