

Examining the Factors Influencing Distance Learners in

Learning Management System (LMS)

Submitted in Partial Fulfilment of the Requirements for the Degree of Master of Science in Software Engineering

By

Marem Jabir M.Saleh Al- Hadeethi

Supervisor

Dr. Aysh Alhroob

Faculty of Information Technology Master Program of Software Engineering Isra University

2017 / 2018

The undersigned have examined the study entitled '*Examining the Factors Influencing Distance Learners in Learning Management System (LMS)*' presented by *Mariam J.Al Hadethi*, a candidate for the degree of Master of Science in Software Engineering and here by certify that it is worthy of acceptance.

Date		Dr.Aysh Alhroob
Date	_	committee member name
Date		committee member name

Date

Dean of the Faculty of IT

DEDICATION

To the master of people and the superintend of messengers, our prophet Muhammad peace and

best blessings be upon him

To Iraq which is the cradle of civilizations

To the Kingdom of Nishmi, Jordan

To beloved Palestine and Al-Quds

To our Arab nation and its people

To my parents, brothers, sisters, and all my relatives

I also dedicate this humble scientific effort to you, supplicating to Allah Almighty to be obtained satisfaction, acceptance and success in the service of our Arab nation and humanity.

Author : Marem 2018

ACKNOWLEDGMENT

Praise be to Allah who gives gifts, grants and donations, and by his wisdom divides them among his mankind.

After Allah Almighty has blessed to accomplish the current scientific thesis, I would like to express my sincere gratitude and appreciation to my Honorable Professor, Dr. Ayesh Al-Hroub, as well as Dean of the Faculty of Information Technology who has graciously supervised my thesis, where he has honored me with his knowledge, ethics, guidance and continuous devotion to serve the science and the nation. I pray for continuing his health and conciliation.

I would also like to express my sincere gratitude and appreciation to the presidency of Al-Isra University, its cadres and my professors who have willingly offer me knowledge and good scientific guidance during my studies including Prof. Mohammad Al-Fayoumi, Dr. Thamir Al-Rousan, Dr. Abdulsalam Arabiat, Dr. Odai Al-Ma'aytah, may God sustain you for this country.

I would also like to express my sincere gratitude and appreciation to all of those who have helped me to accomplish this thesis and to all the members of the Isra University, may God bless you.

ABSTE	RACT	11
СНАР	TER 1 : INTRODUCTION	12
1.1	INTRODUCTION	12
1.2	RESEARCH QUESTION	12
1.3	RESEARCH AIM AND OBJECTIVES	13
1.5	ADVANTAGES OF E-LEARNING	14
1.6	SCOPE OF THIS STUDY	15
1.7	ORGANIZATION OF THE STUDY	15
СНАР	TER 2 : LITERATURE REVIEW	16
2.1	INTRODUCTION	16
2.2	E-LEARNING SYSTEM	16
IN (F	R. ARTEAGA SÁNCHE, A. DUARTE HERO'S) STUDY SURVEYED 226 STUDENTS OF THE PRIMARY SCHOO)L
TEAC	CHING AND FOR COURSES ON HUELVA UNIVERSITY, DATA SHOWS THAT MOODLE will make learn	VING EASY
TO U	SE AND MORE EFFICIENCY AND THE STUDY WILL BE TALK ABOUT THE EASE OF USE OF LEARNING BY U	JSING
MOO	ODLE ,METHODOLOGY OF THIS STUDY IS THAT A QUESTIONNAIRE HAS BEEN CREATED BY PARTS, PER	SONAL
AND	ACADEMIC DATA , THE SECOND PART CONTAINS MULTI PARTS SUCH AS TECHNICAL SUPPORT, COMPU	TER SELF-
SERV	/ICE EFFICIENCY, EASE OF USE, PERCEIVED USEFULNESS, ATTITUDE AND SYSTEM USAGE	18
2.3	UNDERPINNING THEORIES	18
2.4	RELATED WORK	25
IN (F	R. ARTEAGA SÁNCHE, A. DUARTE HERO'S) STUDY SURVEYED 226 STUDENTS OF THE PRIMARY SCHOO)L
TEAC	CHING AND FOR COURSES ON HUELVA UNIVERSITY, DATA SHOWS THAT MOODLE will make learn	JING EASY
TO U	SE AND MORE EFFICIENCY AND THE STUDY WILL BE TALK ABOUT THE EASE OF USE OF LEARNING BY U	JSING
MOO	ODLE ,METHODOLOGY OF THIS STUDY IS THAT A QUESTIONNAIRE HAS BEEN CREATED BY PARTS, PER	SONAL
AND	ACADEMIC DATA , THE SECOND PART CONTAINS MULTI PARTS SUCH AS TECHNICAL SUPPORT, COMPU	TER SELF-
SERV	/ICE EFFICIENCY, EASE OF USE, PERCEIVED USEFULNESS, ATTITUDE AND SYSTEM USAGE	26
2.5	E-LEARNING ACCEPTANCE	27
2.5.1	THE CULTURE OF ELECTRONIC LEARNING SYSTEM:	27
2.5.2	2 PERCEIVED PLAYFULNESS	27
2.5.3	3 USES OF ELECTRONIC LEARNING	29
2.5.4	1 THE CULTURE OF ELECTRONIC LEARNING SYSTEM	30
2.6	SUMMARY	31
СНАР	TER 3 : METHODOLOGY	
3.1	INTRODUCTION	32

Contents

3.2	RESEARCH METHODOLOGY	32
3.3	RESEARCH QUESTIONS	
3.4	PROPOSED E-LEARNING ACCEPTANCE RESEARCH MODEL	
3.5	RESEARCH HYPOTHESIS	35
3.6	DATA COLLECTION	
3.7	Research Instruments	
3.8	DATA SAMPLING	
3.9	DATA ANALYSIS	
3.10.	SUMMARY	
CHAPT	ER 4 : ANALYSIS AND FINDINGS	
4.1	INTRODUCTION	
4.2	Descriptive Analysis	
4.2.	1 Governmental Universities	41
4.2.	2 Private Universities	
4.3	RELIABILITY ANALYSIS	77
4.4	CORRELATIONS	82
4.5	MULTIPLE REGRESSIONS	84
4.6	COEFFICIENTS	84
4.7	ANOVA	85
4.8	SUMMARY	85
CHAPT	ER 5 : DISCUSSIONS	
5.1	INTRODUCTION	87
5.2	DISCUSSIONS	87
5.3	MODEL VALIDATION	87
CHAPT	ER 6 : CONCLUSION AND FUTURE WORK	
6.1	INTRODUCTION	
6.2	CONCLUSION	
6.3	LIMITATIONS OF THIS STUDY	
6.4	FUTURE WORK	91
REFERI	ENCES	

LIST OF TABLES

Table 2-1 TPB (Theory of Planned Behavior)	21
Table 2-2 TAM and TAM2	23
Table 2-3 Combined TAM and TPB	24
Table 2-4 UTAUT	25
Table 2-5 Summarize factors that used to evaluate the acceptance of e-learning	30
Table 4-1 Frequency Table of Faculties Type	39
Table 4-2 Frequency Table of Specialization	41
Table 4-3 Frequency of Specialization In Government Universities	42
Table 4-4 Frequency of have a Personal Computer –Scientific Faculties In Government Universities	43
Table 4-5 Frequency of have e-mail Scientific Faculties In Government Universities	
Table 4-6 Frequency of using e-mail Scientific Faculties In Government Universities	45
Table 4-7 Experiences of using main computer programs Scientific Faculties In Government Universities	46
Table 4-8 The Rate of daily using internet Scientific Faculties In Government Universities	47
Table 4-9 Using E-Book Scientific Faculties In Government Universities	49
Table 4-10 Having computer lab Scientific Faculties In Government Universities	50
Table 4-11 Frequency of have a Personal Computer Literary Faculties In Government Universities	51
Table 4-12 Frequency of have e-mail Literary Faculties In Government Universities	52
Table 4-13 Frequency of using e-mail Literary Faculties In Government Universities	53
Table 4-14 Experiences of using main computer programs Literary Faculties In Government Universities	54
Table 4-15 The Rate of daily using internet Literary Faculties In Government Universities	55
Table 4-16 Using E-Book Literary Faculties In Government Universities	57
Table 4-17 Having computer lab Literary Faculties In Government Universities	58
Table 4-18 Frequency of Specialization In Private Universities	59
Table 4-19 Frequency of have a Personal Computer	60
Table 4-20 Frequency of have e-mail Scientific Faculties In Private Universities	61
Table 4-21 Frequency of using e-mail	62
Table 4-22 Experiences of using main computer programs Scientific Faculties In Private Universities	63
Table 4-23 The Rate of daily using internet Scientific Faculties In Private Universities	64
Table 4-24 Using E-Book Scientific Faculties In Private Universities	66
Table 4-25 Having computer lab Scientific Faculties In Private Universities	67
Table 4-26 Frequency of have a Personal Computer Literary Faculties In Private Universities	68

Table 4-27 Frequency of have e-mail Literary Faculties In Private Universities	69
Table 4-28 Frequency of using e-mail Literary Faculties In Private Universities	70
Table 4-29 Experiences of using main computer programs Literary Faculties In Private Universities	72
Table 4-30 The Rate of daily using internet Literary Faculties In Private Universities	73
Table 4-31 Using E-Book Literary Faculties In Private Universities	75
Table 4-32 Having computer lab Literary Faculties In Private Universities	76
Table 4-33 Reliability Statistics	77
Table 4-34 Interpretation of Mean Scores	78
Table 4-35 Interpretation of Mean Scores	79
Table 4-36 Correlations	83
Table 4-37 Model Summary	84
Table 4-38 Coefficients (a)	85
Table 4-39 Summary of Findings	86
Table 5-1 Model Validation	88

LIST OF FIGURES

Figure 2-1 Five stage model in innovation-decision process	19
Figure 2-2 Model of Cooper and Zmud	19
Figure 2-3 Model of Tornatzky and Fleischer	20
Figure 2-4 Theory of Planned Behavior (Source: Ajzen, 1991)	22
Figure 2-5 Theory of Planned Behavior and Decomposed TPB	22
Figure 2-6 C-TAM-TPB (Source: Chau & Hu, 2002)	24
Figure 3-1 The flow chart of research study	33
Figure 3-2 Proposed Model	34
Figure 4-1 Frequency Table of Faculties Type	40
Figure 4-2 Frequency of Specialization	41
Figure 4-3 Frequency of Specialization In Government Universities	42
Figure 4-4 Frequency of have a Personal Computer-Scientific Faculties In Government Universities	43
Figure 4-5 Frequency of have e-mail Scientific Faculties In Government Universities	44
Figure 4-6 Frequency using e-mail Scientific Faculties In Government Universities	45
Figure 4-7 Experiences of using main computer programs Scientific Faculties In Government Universities	46
Figure 4-8 The Rate of daily using internet Scientific Faculties In Government Universities	48
Figure 4-9 Using E-Book Scientific Faculties In Government Universities	49
Figure 4-10 Having computer lab Scientific Faculties In Government Universities	50
Figure 4-11 Frequency of have a Personal Computer Literary Faculties In Government Universities	51
Figure 4-12 Frequency of have e-mail Literary Faculties In Government Universities	52
Figure 4-13 Frequency using e-mail Literary Faculties In Government Universities	53
Figure 4-14 Experiences of using main computer programs Literary Faculties In Government Universities	54
Figure 4-15 The Rate of daily using internet Literary Faculties In Government Universities	56
Figure 4-16 Using E-Book Literary Faculties In Government Universities	57
Figure 4-17 Having computer lab Literary Faculties In Government Universities	58
Figure 4-18 Frequency of Specialization In Private Universities	59
Figure 4-19 Frequency of have a Personal Computer Scientific Faculties In Private Universities	60
Figure 4-20 Frequency of have e-mail Scientific Faculties In Private Universities	61
Figure 4-21 Frequency using e-mail Scientific Faculties In Private Universities	62
Figure 4-22 Experiences of using main computer programs Scientific Faculties In Private Universities	63
Figure 4-23 The Rate of daily using internet Scientific Faculties In Private Universities	65
Figure 4-24 Using E-Book Scientific Faculties In Private Universities	66

Figure 4-25 Having computer lab Scientific Faculties In Private Universities	67
Figure 4-26 Frequency of have a Personal Computer Literary Faculties In Private Universities	68
Figure 4-27 Frequency of have e-mail Literary Faculties In Private Universities	69
Figure 4-28 Frequency using e-mail Literary Faculties In Private Universities	70
Figure 4-29 Experiences of using main computer programs Literary Faculties In Private Universities	71
Figure 4-30 The Rate of daily using internet Literary Faculties In Private Universities	74
Figure 4-31 Using E-Book Literary Faculties In Private Universities	75
Figure 4-32 Having computer lab Literary Faculties In Private Universities	76

ABSTRACT

This studies about the adoption acceptance of technology and influencer the student's behaviours to accept technology in Jordanian universities. Many studies in the past have utilized previously tested models such as Technology Acceptance Model (TAM), unified theory of acceptance and use of technology (TPB), and related to accept the technology. This study presented a theoretical model based on the (TAM) & (TPB), and identifies the various factors associated with the incorporation of E-learning among students at Jordanian universities.

Factors are necessary conditions in order to increase user's intention to use E-learning applications. In light of the investigation of the hypothetical models the structure was produced for the examination. The greater part of the examinations observed these factors which are : (the culture of electronic learning system, uses of electronic learning, benefits of applying electronic learning system, perceived playfulness and difficulties of using the electronic learning) to be critical and affecting behavioural goal to receive innovation.

For the purpose of this particular a descriptive research used two methods. First the data collection methodology would be utilized a research questionnaire which would be administered and the details would be collected from students to achieve the research objectives. Second the data refers to the information which is gathered from various sources such as online journals, previous studies, online magazines and other sources such as books.

In this study the research instrument used classified into two segments. The first one is about the general questions which includes the demographic details of the participants who participated in this study. A total of 425 research questionnaire were distributed among the students in four different universities in Jordan to gather the information required. The second one comprises of items which are based on the various factors identified in the literature review.

Keywords: Learning Management System, Fundamental of Programming, learning portal, MOODLE.