# DETERMINANTS OF BEHAVIORAL INTENTION OF E-COMMERCE USE BY TOURISM ORGANISATIONS IN MALAYSIA AND ALGERIA

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# DECLARATION

The materials used in this thesis are original except for quotations, excerpts, summaries and references, which have been duly acknowledged.

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# ACRONYMS

MY	Malaysia
ALG	Algeria
MYR	Malaysia Ringgit
DZD	Algeria Dinar
TRA	Theory of Reasoned Action
ТРВ	Theory of Planned Behavior
ТАМ	Technology Acceptance Model
CTAM/TPB	Combined Technology Acceptance Model and Theory of Planned Behavior
ICT	Information and Communications Technology
IDT	Innovation Diffusion Theory
ММ	Motivational Model
SCT	Social Cognitive Theory
LIMM	Linear Innovation Management Model
HMRM	Hierarchical Multiple Regressions model
SPSS	Statistical Package for the Social Sciences
VIF	The Variance Inflation Factor
UNCTAD	United Nations Conference on Trade and Development
DMO	Destination Management Organizations
NITC	National Information Technology Council – Malaysia
SITC	Sabah Information Technology Council- Sabah State
IDC	International Data Corporation Malaysia
wto	World Tourism Organization
TIA	The Travel Industry Association of America

CRS	Computerized Reservation Systems
MSC	Malaysia Multimedia Super Corridor
DAGS	Demonstrator Application Grand Scheme
EIU	Economist Intelligence Unit
SMS	Short Messages Services
GSM	Global System of Mobile Communications
ISP	Internet Service Provider
CERIST	Centre de Recherche sur l'information Scientifique et Technique
ZET	Zones of Tourists Expansion
VSAT	Very Small Aperture Terminal
VOIP	Voice-Over Internet Protocol Operators
CDMA	Code Division Multiple Access
EPU	Economic Planning Unit
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iv

#### ABSTRACT

# DETERMINANTS OF BEHAVIORAL INTENTION OF E-COMMERCE USE IN TOURISM ORGANIZATIONS IN MALAYSIA AND ALGERIA

Recent research suggests that Information Systems and ecommerce could provide significant opportunities to the tourism sector to overcome various technological, organizational, managerial and environmental deficiencies, and the study of the perception of e-commerce in the tourism organization is among important emerging issues that need investigation. This research aims to identify the level of adoption of e-commerce and the intention to use it in the tourism industry in Malaysia and Algeria by using Technology Acceptance Model (TAM) as a powerful model for understanding technology acceptance, by examining proposed variables that predict organizations behavior toward the usage of e-commerce. Technology Acceptance Model variables, perceived usefulness and perceived ease of use, are posited as key drivers of e-commerce acceptance. The conceptual framework integrates external influence, vendor support, perceived risk, market influence and nature of products as independent variables to measure the intention toward using e-commerce. 92 respondents from Malavsia and 88 from Algeria make the data of this research which was analyzed to validate the proposed hypotheses, regression analysis and hierarchical multi regression analysis was used for that. The study revealed that Technology Acceptance Model was significant in explaining intention behavior on ecommerce in tourism organizations in both Malaysia and Algeria. The results showed that the potential benefit of using e-commerce is important and well maintained in both countries, which show the importance of IT managers and e-commerce experts to work together with the tourism organizations in a global environment. For those who manage e-commerce in Algeria, it would be extremely beneficial for them to follow the Malaysian experience in developing the Information Technology and its usage in order to enhance tourism and maximize better benefits and profits.

**Keywords:** e-commerce adoption, tourism organization, technology acceptance model, perceived usefulness, perceived ease of use, behavioral intention.



### ABSTRAK

# PENENTU TERHADAP NIAT GELAGAT PENGGUNAAN E-DAGANG DALAM ORGANISASI PELANCONGAN DI MALAYSIA DAN ALGERIA.

Sejak kebelakangan ini penyelidikan mencadangkan bahawa Sistem Maklumat dan E-Dagang boleh menyediakan peluang yang signifikan bagi sektor pelancongan untuk mengatasi pelbagai kekurangan teknologi, pengorganisasian, pengurusan dan persekitaran. Kajian mengenai persepsi e-dagang dalam organisasi pelancongan adalah antara isu-isu yang wujud yang memerlukan Kajian ini bertujuan untuk mengenalpasti tahap kajian. penerimaan e-dagang dan niat untuk menggunakannya dalam industri pelancongan di Malaysia dan Algeria dengan menggunakan Model Penerimaan Teknologi (MPT). Model ini adalah sangat baik untuk memahami penerimaam teknologi. dengan mengkaji pembolehubah-pembolehubah seperti yang dicadangkan untuk meramal gelagat organsasi terhadap Pembolahubah Model Penerimaan penggunaan e-dagang. Teknologi, "perceived usefulness" dan 'perceived ease of use", adalah ditetapkan sebagai kunci penggerak dalam penerimaan edagang. Rangka kerja telah menghubungkaitkan "external influence", "vendor support", "perceived risk", "market influence" dan "nature of products" sebagai pembolehubah bebas untuk mengukur niat terhadap penggunaan e-dagang. Data daripada 92 responden dari Malaysia dan 88 dari Algeria telah dikaji untuk kesahihan hipotesis seperti yang dicadangkan. Analisis regresi dan analisis regresi hierarki telah digunakan untuk tujuan analisis. Kajian ini telah menunjukkan bahawa Model Penerimaan Teknologi adalah signifikan dalam menjelaskan gelagat niat terhadap edagang di dalam organisasi pelancongan bagi kedua-dua negara Malaysia dan Algeria. Hasil kajian menunjukkan bahawa potensi kebaikkan penggunaan adalah penting dan telah diuruskan dengan baik dikedua-dua negara. Ia juga menunjukkan betapa pentingnya pengurus teknologi maklumat dan pakar e-dagang untuk bekerjasama dengan organisasi pelancongan dalam persekitaraan global. Bagi yang menguruskan e-dagang di Algeria, ia adalah sangat baik untuk mengikuti pangalaman pengurus di Malaysia bagi membangunkan Teknologi Maklumat dan penggunaannya untuk meningkatkan pelancongan dan memaksimumkan faedah dan keuntungan.

# TABLE OF CONTENTS

DECLARATION
ACKNOWLEDGMENT
ABSTRACT
ABSTRAK
ACRONYMS
TABLE OF CONTENTS
LIST OF TABLES
LIST OF FIGURES
LIST OF APPENDICES
UNIVERSITI MALAYSIA SAB
CHAPTER 1: INTRODUCTION
1.1 Background
1.2 Research Problem
1.3 Research Objectives
1.4 Research Questions
1.5 Significance of the Study
1.6 Definition of Variables

TITLE

- Intention to use e-commerce
- Perceived ease of use

1

1

3

4

5

5

7

7

Perceived usefulness	7
External Influence	7
Vendor Support	7
Perceived Risk	7
Market Influence	7
Nature of Product	7
1.7 Scope of the Study	8
1.8 Summary	8
1.9 Outline of the Thesis	8

# CHAPTER 2: AN OVERVIEW OF TOURISM INDUSTRY AND ICT INFRASTRUCTURE IN MALAYSIA AND ALGERIA

2.1 The T	ourism Industry in Malaysia and Algeria	10
2.1.1	An Overview of the Tourism in Malaysia ABAH	10
2.1.2	An Overview of the Tourism in Algeria	12
2.2 E-com	nmerce Infrastructure in Malaysia and Algeria	16
2.2.1	An Overview of the Information	
	Communication and Technology in Malaysia	16
2.2.2	An Overview of the Information	
	Communication and Technology in Algeria	19
2.3 The In	mportance of Internet Technology in the	
in the	Tourism Industry	23
2.4 Behavioral Intention Toward using e-commerce		
2.5. The Nature of Tourism Market		

CHAPTER 3:	LIT	ERATURE	REVIEW	
	3.1	Introducti	on	34
	3.2	Innovation	n Diffusion Theory(IDT)	34
	3.3	Theory of	Reasoned Action (TRA)	36
	3.4	Theory of	Planned Behavior (TPB)	40
	3.5	Technolog	y Acceptance Model (TAM)	41
	3.6	Combined	ТАМ/ТРВ	44
	3.7	Motivation	Model (MM)	45
	3.8	Social Cog	nitive Theory (SCT)	47
	3.9	Summary	MIMS	51
CHAPTER 4:	RES	EARCH FR	RAMEWORK AND METHODOLOGY	
	4.1	Introducti	ON UNIVERSITI MALAYSIA SABAH	52
	4.2	Research	Framework	52
	4.3	Conceptu	al Development	54
	4.4	Hypothesi	S	54
		4.4.1	Intention, Perceived Usefulness and	
			Perceived Ease of Use	55
		4.4.2	External Influence	57
		4.4.3	Vendor Support	58
		4.4.4	Perceived Risk	59
		445	Market Influence	59

2.6 The Nature of Tourism Products

31

	4.4.6	Nature of Products	60
4.5	Type and	Nature of Study	61
4.6	Research	Methodology	61
	4.6.1	Population Sampling	62
	4.6.2	Data Collection Method	62
	4.6.3	Questionnaire Design	63
	4.6.4	Measures	64
4.7	Data Anal	ysis	66
	4.7.1	Reliability Analysis	66
	4.7.2	Descriptive Statistics	67
	4.7.3	T-test Analysis	67
	4.7.4	Multiple Regression Analysis	67
	4.7.5	Hierarchical Regression Analysis	67

# CHAPTER 5: RESULTS

5.1	Introduct	ion	69	
5.2	Demographic Profile of Respondents 6			
5.3	Reliability	Measurements	71	
5.4	.4 Mean Values of Composite Variables 73			
5.5	5 T-test Analysis 75			
5.6	Regressio	on Analysis for Malaysian Respondents	76	
	5.6.1	Relationship Between External Influence,		
		Vendor Support, Perceived Risk, Market Influence,		
		Nature of Product and Perceived Usefulness	77	
	5 6 3	Deletionship Detween External Influence		

UNIVERSITI MALAYSIA SABAH

5.6.2 Relationship Between External Influence,

xi

	Vendor Support, Perceived Risk, Market Influence,	
	Nature of Product and Perceived Ease of Use	80
5.6.3	Relationship Between External Influence,	
	Vendor Support, Perceived Risk, Market Influence,	
	Nature of Product and Intention to use	
	e-commerce	83
5.6.4	The Mediation Effects for Perceived Usefulness and	
	Perceived Ease of Use	86
5.6.4.1	Mediating Effect of Perceived Usefulness	
	between External Influence, Vendor Support,	
	Perceived Risk, Market Influence, Nature of	
	Product on Intention to Use e-commerce	88
5.6.4.2	Mediating Effect of Perceived Ease of Use	
	between External Influence, Vendor Support,	
	Perceived Risk, Market Influence, Nature of	
	Product on Intention to Use e-commerce	90
5.6.5	Polationship Potygon Porsoived Usefulness	
5.0.5	Relationship Between Perceived Usefulness,	
	Perceived Ease of Use and Intention to Use	93
	e-commerce	93
5.7 Regress	ion Analysis for Algerian Respondents	95
5.7.1	Relationship Between External Influence,	
	Vendor Support, Perceived Risk, Market Influence,	
	Nature of Product and Perceived Usefulness	95
5.7.2	Relationship Between External Influence,	
	Vendor Support, Perceived Risk, Market Influence,	

	Nature of Product and Perceived Ease of Use	98
5.7.3	Relationship Between External Influence,	
	Vendor Support, Perceived Risk, Market Influence,	
	Nature of Product and Intention to use	
	e-commerce	100
5.7.4	The Mediation Effects of Perceived Usefulness and	
Perceiv	ved Ease of Use	103
5.7.4.1	Mediating Effect of Perceived Usefulness	
	between External Influence, Vendor Support,	
	Perceived Risk, Market Influence, Nature of	
	Product on Intention to Use e-commerce	103
5.7.4.2	Mediating Effect of Perceived Ease of Use	
5.7.1.2	between External Influence, Vendor Support,	
	Perceived Risk, Market Influence, Nature of	
	Product on Intention to Use e-commerce	105
5.7.5	Relationship Between Perceived Usefulness,	
	Perceived Ease of Use and Intention to use	
	e-commerce for Algerian Respondents	107
5.8 Summary	of the Findings	109
CHAPTER 6: DISCUSSION		

6.1 Introdu	uction	118
6.2 Reitera	tion of the Research Objectives	118
6.2.1	External Influence	119

6.2.2	Vendor Support	120
6.2.3	Perceived Risk	121
6.2.4	Market Influence	122
6.2.5	Nature of Product	123
6.2.6	Perceived usefulness and Perceived Ease of Use	125
6.3 Implicati	ons of the Study	126
6.3.1	Theoretical Implications	126
6.3.2	Marketing Implications	128
6.3.3	Policy Implications	129
6.4 Limitation	s and Further Research	129
6.6 Conclusio	n	131
BIBILIOGRAPHY		133
APPNENDICES		145
SA BA	UNIVERSITI MALAYSIA SABAH	

xiv

# LIST OF TABLES

Table 4.1: The Measures of Research Variables	65
Table 4.2: A Simplified explanation of the Statistical Method Employed to test Hypothesis	68
Table 5.1: Demographic Profile of Respondents	70
Table 5.2: Reliability Test	72
Table 5.3(a): Description of Variables Compiled samples	74
Table 5.3(b): Description of Variables for Algerian and Malaysian Samples	74
Table 5.3(c): Means Difference by t-test between Malaysian and Algerian samples	75
Table 5.4(a) Multi Regression of Variables on Perceived Usefulness (Malaysia Sample)	77
Table 5.4(b) Multi Regression of Variables on Perceived Usefulness (Malaysia Sample)	78
Table 5.5(a) Multi Regression of Variables on Perceived Ease of Use (Malaysia Sample)	80
Table 5.5(b) Multi Regression of Variables on Perceived Ease of Use (Malaysia Sample)	81
Table 5.6(a) Multi Regression of Variables onIntention to use e-commerce (Malaysia Sample)	83
Table 5.6(b) Multi Regression of Variables on Intention to use e-commerce (Malaysia Sample)	83
Table 5.7 Results of the mediation effect of Perceived Usefulness (Malaysia Sample)	89
Table 5.8: Results of the mediation effect of Perceived Ease of use (Malaysia Sample)	91
Table 5.9(a) Multi Regression Perceived usefulness, perceived ease of use on Intention to use e-commerce (Malaysia Sample)	93
Table 5.9(b) Multi Regression of Perceived usefulness	

and perceived ease of use on Intention to use e-commerce (Malaysia Sample)	93
Table 5.9(c) Results of the mediation effect of perceived usefulness between perceived ease of use and intention to use e-commerce (Malaysia Sample)	94
Table 5.9(d) Multi regression of perceived ease of use on perceived usefulness (Malaysia Sample)	99
Table 5.10(a) Multi Regression of Variables on Perceived Usefulness (Algeria Sample)	96
Table 5.10(b) Multi Regression of Variables on Perceived Usefulness (Algeria Sample)	96
Table 5.11(a) Multi Regression of Variables on Perceived Ease of use (Algeria Sample)	98
Table 5.11(b) Multi Regression of Variables on Perceived Ease of Use (Algeria Sample)	99
Table 5.12(a) Multi Regression of Variables on Intention to use e-commerce (Algeria Sample)	101
Table 5.12(b) Multi Regression of Variables on Intention to use e-commerce (Algeria Sample)	101
Table 5.13: Results of the mediation effect of Perceived Usefulness (Algeria Sample)	104
Table 5.14: Results of the mediation effect of Perceived Ease of Use (Algeria Sample)	105
Table 5.15(a) Multi Regression Perceived usefulness, perceived ease of use on Intention to use e-commerce (Algerian Sample)	107
Table 5.15(b) Multi Regression of perceived usefulness and perceived ease of use on Intention to use e-commerce (Algerian Sample)	107
Table 5.15(c) Results of the mediation effect of perceived usefulness between perceived ease of use and intention to use e-commerce (Algerian Sample)	108

Table 5.15(d) Multi regression of perceived ease of use

on perceived usefulness (Algerian Sample)	109
Table 5.16 Summary of the findings and hypothesis Testing	110



# LIST OF FIGURES

Figure 3.1: The Innovation Process in Organization	36
Figure 3.2: Theory of reasoned Action	38
Figure 3.3: Theory of Planned Behavior	40
Figure 3.4: Technology Acceptance Model	42
Figure 3.5: Combined TAM/TPB	44
Figure 3.6: Social Cognitive Theory	50
Figure 4.1: Research Framework	53
Figure 5.1: Operationalisation of the Intervening variable	
(Perceived Usefulness)	88
Figure 5.2: Operationalisation of the Intervening variable (Perceived Ease of Use)	91

xviii

# LIST OF APPENDICES

Appendix A:	Research Questionnaire distributed in Malaysia (English Version)	145
Appendix B:	Research Questionnaire distributed in Algeria (French Version)	150
Appendix C:	SPSS output of the Descriptive Analysis	155
Appendix D:	SPSS output of the Reliability Analysis	163
Appendix E:	SPSS output of the Multiple Regression and Hierarchical Regression of Variables (Malaysia Sample)	174
Appendix F:	SPSS output of the Multiple Regression and Hierarchical Regression of Variables (Algeria Sample)	186



UMALAYSIA SADAL

## CHAPTER 1

# INTRODUCTION

"There is no reason anyone would want a computer in their home." – Ken Olson. President, chairman, and founder of Digital Equipment Corporation, 1977.

### 1.1 Background

Tourism is an innovative and dynamic industry with strong prospects for future growth. It is an industry that will continue to play an important role in the economic growth. It is however important to capitalize on emerging opportunities and capture the benefits of major drivers of this industry's development, including rapid advances in Internet technology and B2C e-commerce environment.

The outlook for business-to-consumer (B2C) electronic commerce depends not only on consumer acceptance of Internet technologies as viable transaction means, but on consumer recognition of web retailers as reliable merchants (Pavlou, 2003). In light of this, it is important to study the adoption of e-commerce by webretailers and their behavioral acceptance of the technology when emerging B2C ecommerce environment. In such big industry like tourism industry, the tourism industry should be prepared to operate in an environment where business partners, agencies and consumers expect accurate and comprehensive access to information, as well as this industry should be developed in a solid manner by creating an online strategy to enhance tourism and maximize better benefits and profits.

### 1.2 Research Problem

Tourism industry has enthusiastically embraced the Internet and used it as a marketing and information communication channel (Yuan & Fesenmaier, 2000). More

and more marketing and tourism organizations are promoting their destinations online and take the Internet as one part of their marketing strategies (Buhalis & Spada, 2000). Tremendous travel-related transactions revealed that informationintensive tourism industry match the nature of the Internet and is able to exploit its great potentials (Werthner & Klein, 1999). However, the Internet is still far from user-friendly (Pan & Fesenmaier, 2000). Research has demonstrated that a low level of awareness of the benefits of the Internet is a major issue for the tourism industry. This is particularly true for small and medium sized enterprises (SMEs) and for those in regional, rural and remote areas. (Kelly, 2000)

To take better advantage of the Internet, considerable researches in marketing and consumer behavior have been done regarding the nature of the Internet, the usability of web sites, and the marketing and advertising strategies. (Hoffman & Novak, 1996; Werthner, 1999; Buhalis, 1999, Buhalis, 2000; Collins and Buhalis, 2003; Pavlou, 2003)

In the essence of issues related to the marketing of tourism products over internet, online buying is already a major trend in the sector. Steinbrink (Steinbrink, 2004) estimates that about 23 percent of U.S. corporate travel bookings are now made online. That means about US\$18.8 billion worth of air, car rental and hotel industry revenue came from bookings made via on-line sites operated by the suppliers themselves or on sites such as those run by Orbitz, Expedia, Travelocity and other e-commerce companies. Her study estimates also that such online corporate bookings will grow to 38.5 percent of total sales in 2006, when they are expected to reach US\$36.5 billion. For comparison purposes, the entire estimated gross bookings for corporate travel now amount to US\$80.9 billion in the United States, a figure that will rise to US\$94.8 billion in 2006, the report calculates. Much of the expected growth, the report speculates, will come from mid-sized companies, each of which currently spends from US\$5 million to US\$10 million per year on travel.

Recently, there has been a highly prolific stream of theoretical research on the acceptance and use of Information Technology. The Technology Acceptance Model (Davis et al., 1989a; Davis et al., 1989b) is one of the most widely used to test this thesis. Recent studies suggest it applies also to e-commerce and to the adoption of Internet Technology (Gefen et al., 1997), as with most Information System, Internet Technology acceptance and use can be partially explained by the Technology Acceptance Model (Pavlou, 2003). While some literatures have already attempted in this measure (Gefen et al., 1997; Gefen et al., 2000a; Lee, 2000; Teo et al., 1999; Heijden, 2001; Moon et al., 2001; Pavlou, 2003), further investigations in various sectors of adoptions is still needed. While e-commerce has proliferated with the growth of the Internet, there have been insufficient empirical research efforts concerning its status in the provision of tourism and travel products and services by various tourism and travel organizations.

Thus, this study try to help maximize tourism opportunities arising from online technologies and ensure that the tourism industry fit well with e-commerce in Malaysia and Algeria and continue to have an exciting and prosperous future.

### 1.3 Research Objectives

There are several objectives, which the current research is poised to achieve. These are:

 To identify the level of adoption of e-commerce and the intention to use it in the tourism industry in Malaysia and Algeria.