

PERSPECTIVES ON TECHNOLOGY READINESS, UNIFIED THEORY OF ACCEPTANCE AND USE OF TECHNOLOGY, AND BEHAVIORAL INTENTION OF ONLINE TRAVEL AGENCY USERS

AZDEL BIN ABDUL AZIZ

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Thesis Submitted to the Putra Business School in Fulfilment of the Requirements for the Degree of Doctor of Philosophy

July 2019

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Abstract of thesis presentation to the Senate of Universiti Putra Malaysia in fulfilment of the requirements for the degree of Doctor of Philosophy

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By

AZDEL BIN ABDUL AZIZ

July 2019

Chairperson: Professor Dr. Khairil Wahidin Awang Faculty: Putra Business School

The pace of technology advancement is faster than ever before. The key to success is when the business focuses on online service technology, particularly online travel agencies (OTA) that enables easier and convenient room reservation. However, most of the recent technology acceptance studies have not addressed the consumers' psychological traits or general belief towards the new adoption of certain systems. In Malaysia, the application of OTA has not been empirically measured to any great extent, where the implementation of this type of reservation system is still in the early stage. It is therefore important to gain an in-depth understanding of the system by examining technology readiness as the psychographic factor and the technology acceptance on customers' OTA experiences. A survey questionnaire among customers, who have used OTA has been undertaken with a total of 453 respondents where all the data were found usable. The survey was conducted at Malaysia airports. The results from the descriptive analysis revealed that most of the respondents believed technologies can enhance and improve flexibility, efficiency, and control over their daily lives. The outcome also indicated that the respondents were not pioneers in using and owning new technologies. Their main concern is the security of using new technology especially if it involves monetary and personal identity in the transaction. The findings also proved that the Unified Theory of Acceptance and Use of Technology mediates the relationship between Technology Readiness (TR) and Behavioral Intention. The knowledge in this area can benefit the managers in fine-tuning their product positioning as well as communication strategies in order to align the TR profiles of a potential customer based on the different stages involved in the product lifecycle.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

PERSPEKTIF KESEDIAAN TEKNOLOGI, PENYATUAN TEORI PENERIMAAN DAN PENGGUNAAN TEKNOLOGI SERTA TINGKAH LAKU KEMAHUAN BAGI PENGGUNA EJEN PELANCONGAN ATAS TALIAN

Oleh

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Pengerusi: Profesor Dr. Khairil Wahidin Awang Fakulti: Putra Business School

Kadar kemajuan teknologi kini telah meningkat lebih laju berbanding dahulu. Kunci kepada kejayaan ini adalah apabila perniagaan, terutamanya ejen-ejen pelancongan fokus untuk memberi perkhidmatan atas talian yang membolehkan tempahan bilik menjadi mudah dan senang. Namun begitu, kebanyakan kajian berkenaan penerimaan teknologi gagal untuk mengadakan ciri-ciri psikologi pelanggan atau kepercayaan umum terhadap penerimaan terhadap sesuatu sistem. Di Malaysia, aplikasi ejen pelancongan atas talian masih belum diukur dengan lebih luas secara empirik, di mana pelaksanaannya masih pada peringkat awal. Oleh sebab itu, adalah penting untuk mendapatkan pemahaman yang lebih mendalam berkenaan sistem ini dengan cara mengkaji kesediaan teknologi sebagai factor psikologi dan penerimaan pelanggan terhadap penggunaan ejen pelancongan atas talian. Satu soal selidik terhadap pelanggan yang pernah menggunakan ejen pelancongan atas talian telah pun dilaksanakan dengan jumlah 453 responden yang semuanya boleh digunakan. Soal selidik itu telah dijalankan di beberapa lapangan terbang Malaysia. Keputusan daripada analisa deskriptif menunjukkan sebahagian besar daripada responden mempercayai bahawa teknologi boleh menambah baik fleksibiliti, kecekapan, dan kawalan dalam kehidupan seharian mereka. Hasil keputusan juga mendapati majoriti daripada responden bukan perintis dalam menggunakan atau memiliki teknologi baru. Kebimbangan utama mereka adalah pada sekuriti penggunaan teknologi baru terutamanya jika membabitkan kewangan dan identity peribadi dalam transaksi. Daripada dapatan berkenaan juga, terbukti bahawa Teori Penerimaan dan Penggunaan Teknologi dapat menjadi pengantara dalam hubungan di antara Kesediaan Teknologi dan Tingkah Laku Kemahuan Pengguna. Pengetahuan dalam bahagian ini dapat memberi manfaat kepada pengurus dalam menstruktur kedudukan produk bersama strategi komunikasi untuk menyeragamkan profil Kesedian Teknologi pelanggan yang berpotensi berdasarkan perbezaan tahap dalam kitaran hayat produk.



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I certify that a Thesis Examination Committee has met on 12 July 2019 to conduct the final examination of Azdel bin Abdul Aziz on his thesis entitled "Perspectives On Technology Readiness, Unified Theory Of Acceptance And Use Of Technology, And Behavioral Intention Of Online Travel Agency Users" in accordance with the Universities and University Colleges Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U.(A) 106] 15 March 1998. The Committee recommends that the student be awarded the Doctor of Philosophy.

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TABLE OF CONTENTS

COPYRIGHT	
ABSTRACT	
ABSTRAK	
ACKNOWLEDGEMENTS	
APPROVAL	
DECLARATION	
TABLE OF CONTENTS	
LIST OF TABLES	
LIST OF FIGURES	
LIST OF APPENDICES	

ii iii iv v vi

Page

viii х xiv xvii xviii

CHAPTER

1	INTR	ODUCTION	
	1.1	Introduction	1
	1.2	Background of the Study	1
	1.3	Problem Statement	6
	1.4	Research Framework	8
	1.5	Research Objective	9
1.6 Research Question		Research Question	10
	1.7	Significance of the Study	10
1.7.1 Academic Perspective		10	
		1.7.2 Practical Perspective	10
	1.8	Definition of Terms	11
1.8.1 Online Travel Agencies		1.8.1 Online Travel Agencies	11
	1.8.2 Technology Readiness		11
	1.8.3 Unified Theory of Acceptance and Use		
		Technology (UTAUT)	12
		1.8.4 Behavioral Intention	12
	1.9	Organization of the Thesis	12
2	LITE	RATURE REVIEW	
	2.1	Introduction	13
	2.2	Online Travel Agencies	13
		2.2.1 Introduction to Online Travel Agencies	13
		2.2.2 Why hotels invest in Online Travel Agencies: Issues and concerns on its	
		adoption	14
		2.2.3 The impact of Online Travel Agencies	
		toward behavior and attitude	15
	2.3	Human Behavior	17
	2.4	Behavioral Intention	19

2.5	Technol	ogy Readiness	20
2.6	Unified Theory of Acceptance and Use of		
	Technol	ogy	23
2.7	Review	Of Related Theory	27
	2.7.1	Technology Acceptance Model	27
	2.7.2	Limitation of Technology Acceptance	
		Model	28
	2.7.3	Positioning Unified Theory of Acceptance	
		and Use of Technology (UTAUT) in the	
		study in relation to Technology Readiness:	
		UTAUT versus TAM	29
2.8		ationship Among Variables in the	
	Study Fi	ramework	30
	2.8.1	The relationship between Technology	
		Readiness and Behavioral Intention	30
	2.8.2	The relationship between Technology	
		Readiness and Unified Theory of	
		Acceptance and Use of Technology	31
	2.8.3	The relationship between Unified Theory	
		of Acceptance and Use of Technology and	
		Behavioral Intention	32
	2.8.4	The relationship between Technology	
		Readiness, Unified Theory of Acceptance	
		and Use of Technology and Behavioral	
• •	~ .	Intention	33
2.9	Conclus	ion	33
RESEA	RCH M	ETHODOLOGY	
3.1	Introduc		35
3.2		h Design	35
3.3		on and Sample	37
3.4		g Technique Used	40
3.5		ent Development	41
5.0	3.5.1	Questions in Section A of the questionnaire	42
	3.5.2	Questions in Section B of the questionnaire	43
	3.5.3	Questions in Section D of the questionnaire	44
	3.5.4	Questions in Section D of the questionnaire	45
3.6		ting and Pilot Study	45
3.7		ity Analysis	46
3.8		llection Procedures	47
3.9		of Data Analysis	48
	3.9.1	Structural Equation Modelling	48
3.10	Conclus		49
		SIS AND FINDINGS	
11	Tester alles a		51

3

4

G

4.1	Introduction	51
4.2	Demographic Profiles of Respondents	51
	4.2.1 Gender	52

	4.2.2	Age	52
	4.2.3	Marital Status	53
	4.2.4	Education Level	53
	4.2.5	Profession	54
	4.2.6	Frequency of Usage	54
4.3	Using E	Exploratory Factor Analysis	55
	4.3.1	Exploratory Factor Analysis of	
		Technology Readiness	56
	4.3.2	Exploratory Factor Analysis of UTAUT2	58
		4.3.2.1 EFA on Performance Expectancy	59
		4.3.2.2 EFA on Effort Expectancy	60
		4.3.2.3 EFA on Social Influence	61
		4.3.2.4 EFA on Facilitating Condition	62
		4.3.2.5 EFA on Hedonic Motivation	63
		4.3.2.6 EFA on Price Value	63
		4.3.2.7 EFA on Habit	64
	4.3.3	Exploratory Factor Analysis of Behavioral	
		Intention	65
4.4	Descrip	otive Statistics	66
	4.4.1	Technology Readiness Mean Score	66
		4.4.1.1 Optimism Mean Score	66
		4.4.1.2 Innovativeness Mean Score	67
		4.4.1.3 Discomfort Mean Score	68
		4.4.1.4 Insecurity Mean Score	68
	4.4.2	UTAUT2 Mean Score	69
		4.4.2.1 Performance Expectancy Mean Score	70
		4.4.2.2 Effort Expectancy Mean Score	70
		4.4.2.3 Social Influence Mean Score	71
		4.4.2.4 Facilitating Condition Mean Score	
		4.4.2.5 Hedonic Motivation Mean Score	72
		4.4.2.6 Price Value Mean Score	72
		4.4.2.7 Habit Mean Score	73
	4.4.3	Behavioral Intention Mean Score	74
		4.4.3.1 Revisit/reuse Intention Mean Score	e 74
		4.4.3.2 Word of Mouth Mean Score	74
4.5	Conclu	sion	75
STRUC	CTURAI	L EQUATION MODELLING	
ANAL	YSIS		
5.1	Introdu	ction	77
5.2	Measur	ement Model Evaluation	77
	5.2.1	Measurement Model for Technology	
		Readiness	79
	5.2.2	Measurement Model for UTAUT2	82
	5.2.3	Measurement Model for Behavioral	
		Intention	85
	5.2.4	Overall Measurement Model	86

xii

5

6

		5.2.5	Model I	Fit Assessment	88
	5.3	Structur	al Model	Evaluation	89
		5.3.1	First Or	der Structural Model Evaluation	89
		5.3.2	Second	Order Structural Model	
			Evaluat	ion	92
		5.3.3	Hypothe	eses Testing	93
			5.3.3.1	Hypotheses H1	94
			5.3.3.2	Hypotheses H2	95
				5.3.3.2.1 Hypotheses H2a	95
				5.3.3.2.2Hypotheses H2b	96
				5.3.3.2.3 Hypotheses H2c	96
				5.3.3.2.4 Hypotheses H2d	97
			5.3.3.3	Hypotheses H3	98
	5.4	Test of I	Mediatin	g Variable	98
		5.4.1	Hypothe	eses H4	100
	5.5	Final M	odel		102
	5.6	Conclus	sion		103
6	DISCU	SSION A	AND CO	NCLUSION	
	6.1	Introduc			105
	6.2	Summar	ry of Ana	lyses and Recapitulation of	
		Finding			105
		6.2.1		tate of Technology Readiness	106
		6.2.2		ect of Technology Readiness	
			on Beha	vioral Intention	107
		6.2.3	The effe	ect of Technology Readiness	
			on UTA	UT2	108
	4	6.2.4	The effe	ect of UTAUT2 on Behavioral	
			Intentio	n	110
		6.2.5	The me	diating effect of UTAUT2	
4				nology Readiness and Behavioral	
			Intentio		111
	6.3	Implicat	tions of the		112
		6.3.1		ical Implication	112
		6.3.2	Practica	1 Implication	113
	6.4	Limitati	ons and l	Recommendations for Future	
		Researc			114
	6.5	Conclus	sion		114
REFERENCES					115
APPENDICES					145
BIODATA OF S	TUDEN	Т			187
LIST OF PUBL					189
					-07

LIST OF TABLES

Table		Page
3.1	Population of OTA users in Malaysia	39
3.2	Instrument Development	42
3.3	Technology Readiness Index 2.0 (TRI 2.0)	42
3.4	Unified Theory of Acceptance and Use of Technology 2 (UTAUT2)	44
3.5	Behavioral Intention	45
3.6	Respondent's Background Information	45
3.7	Alpha Co-efficient of Internal Reliability	47
4.1	Gender	52
4.2	Age	53
4.3	Marital Status	53
4.4	Education Level	54
4.5	Profession	54
4.6	Frequency of Usage	55
4.7	Results of Factor Analysis Output for Technology Readiness	57
4.8	Results of Factor Analysis Output for Performance Expectancy	60
4.9	Results of Factor Analysis Output for Effort Expectancy	60
4.10	Results of Factor Analysis Output for Social Influence	61
4.11	Results of Factor Analysis Output for Facilitating Condition	62
4.12	Results of Factor Analysis Output for Hedonic Motivation	63
4.13	Results of Factor Analysis Output for Price Value	64
4.14	Results of Factor Analysis Output for Habit	65
4.15	Results of Factor Analysis Output for Behavioral Intention	65

 \bigcirc

	4.16	Optimism Mean Score	67
	4.17	Innovativeness Mean Score	67
	4.18	Discomfort Mean Score	68
	4.19	Insecurity Mean Score	69
	4.20	Performance Expectancy Mean Score	70
	4.21	Effort Expectancy Mean Score	70
	4.22	Social Influence Mean Score	71
	4.23	Facilitating Condition Mean Score	72
	4.24	Hedonic Motivation Mean Score	72
	4.25	Price Value Mean Score	73
	4.26	Habit Mean Score	73
	4.27	Revisit/reuse Intention Mean Score	74
	4.28	Word of Mouth Mean Score	75
	5.1	Measurement model for Technology Readiness	81
	5.2	Measurement model for UTAUT2	83
	5.3	Measurement model for Behavioral Intention	86
	5.4	Fit Indices of Overall Measurement Model	88
	5.5	Fit Indices of 1st Order Structural Model	90
	5.6	Summary of Result for the First Order Structural Path	91
	5.7	Fit Indices of 2nd Order Structural Model	93
	5.8	Summary of Result for the Second Order Structural Path	93
	5.9	Summary of Result for H1	94
\mathbf{U}	5.10	Summary of Result for H2	96
	5.11	Summary of Result for H2a	95

5.12	Summary of Result for H2b	96
5.13	Summary of Result for H2c	97
5.14	Summary of Result for H2d	97
5.15	Summary of Result for H3	98
5.16	Summary of Direct and Mediation Model	101



 \bigcirc

LIST OF FIGURES

Figure]	Page
1.1	Research Framework – Integrating TR with UTAUT2	9
2.1	Final version of Technology Acceptance Model (TAM)	28
5.1	Output Path Diagram for Measurement Model of Technology Readiness	80
5.2	Output Path Diagram for Measurement Model of UTAUT2	83
5.3	Output Path Diagram for Measurement Model of Behavioral Intention	85
5.4	Overall Measurement Model	87
5.5	Standardized Estimates for Hypothesized Models with Structural Components	90
5.6	Standardized Estimates for Hypothesized Models with 2nd Order Structural Components	92
5.7	Key Concepts of Classic Mediation	99
5.8	Direct Model of Mediation Test	101
5.9	Mediation Model of Mediation Test	102
5.10	Final Model	103

LIST OF APPENDICES

Appen	dix	Page
А	Survey Questionnaire	145
В	Descriptive Analysis	156
С	Exploratory Factor Analysis (EFA)	157
D	Reliability Analysis	167
Е	Mean Score and Standard Deviation	169
F	Measurement Model	170
G	Structural Model	181
Н	Bootstrap Mediation Test	186

CHAPTER 1

INTRODUCTION

1.1 Introduction

The foundation of this study is explained throughout this chapter. The background of the study as well as the statement of the problem, research objectives and also the research questions are also discussed and highlighted. This chapter also includes the explanation of the conceptual framework in reference to the underlying theory regarding the consumers' technology readiness, technology acceptance, and behavioral intentions. In supporting the main purpose of the study besides achieving the main objectives, the research hypotheses are also presented. It is then followed by the significance and justification of the study. Lastly, the chapter involves a definition of terms used throughout the research.

1.2 Background Of The Study

Hotel is one of the world's fastest-growing businesses. This is in line with Hospitalitynet's (2015) report forecasted in 2016 which stated that the global hotel sector income would reach the United States (US) \$550 billion¹. If the estimation proves to be accurate, it shows an increment of approximately US\$100 billion¹ compared to the past five years in 2011 which only worth US\$457 billion¹. Additionally, Hospitalitynet (2015) also reported that Europe and Asia Pacific regions had the highest hotel occupancy rates at over 68% and continued to be key regions for the sector globally. The most expensive regions for hotel room rates are the Middle East and Africa with US\$165.97¹ average daily room rate.

In Malaysia, the hotel sector has become among the main contributors for the Gross National Income and additionally the sector is recognized as one of the key features when it comes to the National Key Economic Area (Economic Transformation Program, 2014). The increment of tourist arrival has given a fitting impression to the sector. According to Tourism Malaysia (2019), in 2018 Malaysia received 25.83 million tourists as compared to 25.72 million in 2015. Tourism Malaysia also reported that the total receipts by tourists in 2018 increased to RM84.1 billion in terms of the revenue of the country in comparison to RM69.12 billion in 2015; with about 21.67% increment. In general, in terms of the tourists' per capita expenditure for that particular period, the approximation is RM3,257.00 and an increase of 20.59% was observed compared to 4,750 hotels and 308,207 rooms compared to 4,070 hotels and 304,721 rooms in 2015. In 2018, Malaysia's hospitality market had a total of approximately 82.45 million hotel guests who stayed at the properties across the country. Commercial accommodations such as

¹ Currency Exchange Rate US\$ 1 = RM 4.0895 (Central Bank of Malaysia, 2019)

hotels, bed, and breakfast, etc. are the top choice for international travelers to Malaysia with almost 96% of the arrivals utilizing commercial accommodation in 2018.

The statistics by Tourism Malaysia (2019) shows that the hotel sector in Malaysia appeared to grow well and accomplished the objective to attract more leisure and business tourists, whether locals or internationals to visit and spend in Malaysia. Furthermore, this situation has created demand for hotel rooms and the quality of four and five-star hotel rooms are required to handle this demand. Many domestic and foreign investors are keen to invest due to the government's liberalization of policies as well as the policies and rewarding incentives from the tax. They also feel that the stability of Malaysia's economy is convincing. Therefore, this situation has portrayed that the area of hospitality in Malaysia optimistically remains where it has been observed that the level of performance conveyed a continual growth. This also urged the public hospitality sector to anticipate for valuable opportunities in expanding their business besides maintaining it (Tourism Malaysia, 2019).

People now live in an age where they constantly need to travel. If the period of traveling is more than one day, they need a place to sleep and rest. Worldly, there are numerous types of lodging to accommodate them. As a result, the hotel sector has become so competitive and there is also an increase in demand as more travelers check in to their establishment. According to Hospitalitynet (2018), US lodging demand increased by 1.6% during the first half of 2018 compared to the same period in 2015. The rise of millennial traveler has also created new trends that force the hotel sector to venture into new types of business, technology and hotel marketing. The millennials travel more often than other generations and spend roughly US\$200 billion¹ a year (Travel Pulse, 2018). The pace of technology advancement is faster than ever before. This phenomenon is switching the expectation of both hotel guests and the hotels on how they conduct their business. According to MDGAdvertising (2018), Hotels business that venture in technology will receive the greatest number of reservations in 2018. The key to success is when the business focuses on online service technology, particularly online booking website that enables all types of hotel services. The Internet is tremendously vital to Millennials. This generation will be the majority of travelers and they demand personalized and customized service from the company they choose.

According to Buhalis & Sinarta (2019), over the last decade, the travel and tourism arena accomplished a dramatic growth of Information and Communication Technology (ICT). It also possessed an erratic impact on the hotel sector (Law, 2009). Travel and tourism sector had the highest volume of the online transaction as early as 2004 (Werthner and Ricci, 2004). According to Marcussen (2008), in terms of revenue generated through online channels, it has been observed that the reservation of hotel made online is the popular medium of making reservation nowadays as it is the second-largest sales item following the airline booking. According to Buhalis (2003), some hotels are reluctant to adopt new technologies. However, marketing and sales can significantly improve resulting from ICT development in the hospitality domain (Schegg, Stangl, Fux, and Inversini, 2013). The opportunities offered by the Internet is greatly significant towards modern tourist (Buhalis and Law, 2008). Furthermore, recent studies have shown that

¹ Currency Exchange Rate US\$ 1 = RM 4.0895 (Central Bank of Malaysia, 2019)

tourist always finds precise information which is available on the internet (Xiang, Wober, and Fesenmaier, 2008), compare the information with other competitors (Inversini and Buhalis, 2009) and they eventually end up to make bookings online (Vermeulen and Seegers, 2009).

The online hotel website has given travelers control over their travel planning due to the presence of the Internet. It is a perfect medium for the hotel sector to provide a quick and easy way to book travel arrangements. The internet has become the reservation instrument of choice for 57% of travelers throughout the world (Statisticbrain, 2015). The online travel booking phenomenon is even more apparent in the US, where 74% of leisure travelers and 77% of business travelers utilize the Internet as a primary tool in arranging their travel plans (Google and Ipsos Media CT, 2015). Thus, many companies move to the online world to cater to the global internet population. As other businesses move to the online world, hotels need to use the internet for the purpose of attracting new and more customers.

Advancement in information technology (IT) has changed the ways hotel sector operates. By nature, the hotel sector is not technology-oriented, but because of the increasing demands from sophisticated customers and characteristic of the sector, it has made the managers and hotel sector to utilize IT to meet the present and future business needs. Moreover, it has been suggested by Olsen and Connolly (2000) that information technology is the best dynamic force which happened to change the hotel's manifestation and it will certainly keep on changing how future business is done by the sector. Significant efforts have been made by hotels to encourage travelers to book their rooms online. These efforts include providing the lowest guaranteed rates, in which hotel claims that the lowest rates on the Internet are only available on their websites (O'Connor and Murphy, 2004). Additionally, a third-party distributor has been considered as an innovative technology that was designed to improve users' reservation experiences by creating an environment characterized by usefulness, convenience, and fun (Morosan and Jeong, 2008).

Furthermore, with the use of IT in the management system of the hotel, it has provided assistance in the development of service quality as well of service competence which largely contribute towards the decrease in the management costs besides improving the satisfaction of the customers (Wang, 2013). Consequently, the hotel managers need to take advantages of the IT and incorporate it into the business to provide new and varied services into their operations of activities. Besides, utilizing technology as value-added amenity help to promote differentiation, increase guest satisfaction and build loyalty among guest (Cobanoglu, Corbaci, and Ryan, 2001). Henceforth, it is an advantage for the hotel sector to grab this opportunity to attract more tourists to stay at their hotel.

Approximately 32% of the hotel's income derives from online reservation (TravelClick, 2012). Nevertheless, a hotel-owned website is not the only distribution channel that the hotel used. The hotel also uses Online Travel Agencies (OTA) because they have the capability to extend the scope of a customer to a bigger market and increase the hotel's occupancy (Hotelmarketing, 2012). An OTA is known as an agency that is involved in selling as well as arranging accommodations, tours, transportation, and trips for travelers

using the online medium. Furthermore, these agencies help the hotel to distribute their inventory effectively and stretch to the customer that the hotel may not be able to connect directly (Kotler, Bowen, and Makens, 2010). In the second quarter of 2014, the OTA experienced the largest jump in bookings, with a 12.8% increase compared to the previous year (TravelClick, 2015).

Hotels normally used international OTA such as Hotels.com, Expedia, Booking.com, Orbitz and many more as one of their distribution channels to attract customers to make a room reservation. According to Statisticbrain (2015), there are 8 top visited travel sites ranked by Alexa Rank. Alexa Rank is the measurement of the global popularity of a website as calculated by Alexa Internet, which is a web traffic and reporting firm owned by Amazon (Reputationx, 2014). These 8 top visited travel sites are:

- Booking.com
 Expedia.com
 Hotels.com
 Priceline.com
- 5. Kayak.com
- 6. Travelocity.com
- 7. Orbitz.com
- 8. Hotwire.com

In response to this e-business opportunity, most hotels will have their own recognized websites to enable promotion and reservations on the internet. With the Internet users currently reached 87.4% of Malaysia's population, (Malaysian Communications and Multimedia Commissions, 2019), this symbolizes an attractive market possibility. Not only that, the third party or the online agencies also begin established their own website to gain opportunities in the market and also in the hotel sector. It has been acknowledged to have potentials in contributing to the growth of the service sector and boosts the economy of the country. Malaysian government's determination is to explore the potential of the tourism sector. With the existence of the information technology and digital services, it will be the advancement for the sector to grow and compete with the others.

The hotel sector is undertaking changes because of the speedy growth of digital services and information technology. Online travel has intensely reformed the way tourism firms cooperate with their consumers. Online booking website has the possibility to take this expansion even further. Yet, several matters have been emphasized from the time when the early days of online services expansion such as the lack of relevance and ease of use of many services. Hence, the extensive implementation of online booking website and the Internet in more than a few countries as well as the establishment of so-called ecosystems in between vendors of technology specify that many of these issues have been overcome (Eriksson, 2013).

Websites related to travel, for example, Agoda, Booking.com, and Expedia which are owned by the third-party organization are noticeably conveying that online travel and tourism services are implemented and consumed by many individuals (Eriksson, 2013). Nevertheless, as the business is projected to start growing in the Internet era, various concerns have a tendency to be disregarded. Without any personal contact, websites act as complimentary self-service systems and certainly will not be replacing agents. Websites can also be useful tools for product research and some of the simpler booking processes, but many bookings are just more easily and conveniently done with the assistance of an experienced, live human being (Rosso, 2014; Yee, Ramlan, Hassan, Shukri and Mokhtar, 2018). Previous literature did suggest that websites have the possibilities for committing customers to use the same service provider, but electronic self-service may possibly erode customer relationship because of the lack of personal relationship in self-service use situation. Consumers want the online travel experience but are not satisfied and though travel has the most websites out of all industries, it has low consumer experience ratings on those sites (Cognizant, 2014).

With a high number of booking application that can be found in the travel websites, it is important to identify whether the applications have satisfied the users or otherwise (Cassidy and Pabel, 2019). Moreover, it is also important to investigate whether the distribution channel can be applied to hotel marketing strategies to multiply the satisfaction of the customers. Pura (2005) has claimed that; in the context of online service, there is a great need for understanding users, their relative value perceptions and emotions derived from using a service. This is parallel with a number of researchers (Komulainen, Mainela, Tahtinen, and Ulkuniemi, 2004; Lubbe and Louw, 2010) who stressed on the necessity of recognizing the values that initiate the intention to use online services. This information is mainly vital for the real creation of value.

In Business to Commerce (B2C) e-commerce, one of the major and rapid-growing divisions has been established by online reservation (Parasuraman, Zeithaml, and Malhotra, 2005). The socio-economic background of tourism will continue to stimulate additional changes because of the Internet (Ma Sabiote, Ma Frias, and Castaneda, 2012; Rayman-Bacchus and Molina, 2001). It is a necessity for the hotel to apply strategies concerning e-commerce so that they can gain several benefits such as improve sustainability, gain customer loyalty and improvement in marketing efficacy (Tsai, Huang, and Lin, 2005; Wu and Law, 2018). The growth of multichannel sellers that use both offline and online services has added to the number of increasing online businesses (Hahn and Kim, 2009). A retail organization that focuses exclusively on one distribution channel may lose the competitive advantage to the one which uses a multi-channel strategy (Izquierdo-Yusta and Martı'nez-Ruiz, 2011).

It is debatable that the business partnership of hotels and OTA create the situation where maintaining profitability in the long term is a battle for hotels (Green and Lomanno, 2012; Lee, Guillet, Law, and Leung, 2012). Moreover, hotels need to keep the room rate very low due to pressure from the price transparency of the online distribution channels (Green and Lomanno, 2012). To survive with these problems, hotels' pricing strategies, the value proposition from consumers, consumers' responsive behavior towards deal offerings and hotels' sales and promotional tactics need to be revised and improved (Buhalis and Law, 2008; McCartan, 2013). Hotels may develop their own hotel website and stuff all the information about the hotel on the website. They can also encourage travelers to make a reservation through the website. However, the challenge now is in

attracting potential buyers to make their travel booking on the hotel-owned reservation website (Pilepic, Šimunic, and Car, 2015). Considering this limitation, it is believed that OTA is the best answer to the above-stated problem as approved by Lai, Huang, Lu, and Chang (2013) who mentioned that OTA can enhance or bring about change in the booking experience of customers as a whole. With the heavy, extensive use of the profitable business model and advertising power, it made easy for the OTA to increase their revenues and become powerful than hotel websites (McCartan, 2013).

A study conducted by Pilepic et al. (2015), found that online booking business for the hotel sector is a logical way to extend bookings to their central reservation centers. OTA such as Booking.com, Expedia, last-minute, Traveloka, and Travelocity are among the platforms that have gained many visitors looking for a one-stop-shop for hotels all over the world. Pilepic et al. (2015) also stated that; to meet the needs, many consumers go to OTA to compare travel choices and to find the best solution. They often looked for a hotel room, flexibility, and packages. HawkPartners (2012), found that 52% of online travel websites were being used as a channel to research and evaluate hotels. HawkPartners (2012) also stated that Expedia, Tripadvisor, Hotels.com, Travelocity, and Orbitz are the five websites which are most often being used for evaluating hotels. The use of OTA is suitable and helpful for hotel managers in developing business marketing strategies since it can help to decrease overhead cost and supply extra constructive service (Lai et al, 2013).

1.3 Problem Statement

Morosan and Jeong (2008), contended that although selling hotel rooms through OTA resulting in brand erosion due to the deep discounting, and rate imparity among distribution channels, in a long run; this way will improve hotel's financial burden and generate a higher level of customer satisfaction and behavioral intention. Nevertheless, in reference to Godoe and Johansen (2012) when a new technology system is being proposed, there is a need for the system to be tested by the hotel before adopting it as the hotel can take the actions that are necessary before implementing it. Parasuraman (2000) specified that customer frustration is also present when using the new technology and some of them feel the complexity has made them withdrawn with the brand. Diverse psychological responses will happen when customers encounter technology and it depends on their feeling towards it (Meuter, Ostrom, Bitner and Roundtree 2003). Customer beliefs and behavior towards technology can be affected by the feeling of anxiety (Meuter et al., 2003; Venkatesh, Morris, Davis and Davis, 2003) and fun (Agarwal and Karahanna, 2000). The authors also added that; in understanding the acceptance of technology adoption, personality dimension plays an important role where it actually has the tendency in influencing people's interaction, usability as well as experience when using the new technology.

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Unexpectedly, only 34% of Malaysian internet users rely solely on the internet throughout the entire process of room reservation, and only 33% from that figure used OTA (GFK, 2015). In 2019, only 4.8 million internet users used an online travel booking website (Statista, 2019). It is low compared to internet users of Malaysia which is 28.7 million or 87.4% out of the total population in 2018 (Malaysian Communications and

Multimedia Commissions, 2019). Therefore, it is vital to address customers' technology readiness before businesses invest in technology particularly self-service technologies (Lin and Hsieh, 2006). In fact, customer satisfaction, as well as behavioral intention, is influenced by customers' technology readiness (Curran and Meuter, 2005; Lin and Hsieh, 2006; Parasuraman, 2000; Yieh et al., 2012). Curran and Meuter (2005) claimed that the challenge with acceptance and satisfaction to any kind of technology is not the technology itself but rather its use among customers. Thus, to understand the complexity of the relationship between customers' usage and the system, technology readiness must be incorporated into one's research (Lee et al., 2012; Parasuraman, 2000).

There are loads of theory on acceptance towards technology. Many kinds of research have focused on investigating the determinants of technology use especially the Technology Acceptance Model (TAM) which was originally rooting from the Theory of Reasoned Action (TRA). In fact, TAM has been broadly used in explaining information system usage behavior. Other than that, Venkatesh et al. (2003) also formulated Unified Theory of Acceptance and Use of Technology (UTAUT) to integrate the main competing user acceptance models and consequently improve the expectedness and understanding of technology acceptance. Later, they developed an extension of UTAUT known as UTAUT2 (Venkatesh, Thong, and Xu, 2012) which will be adopted in this study and it is more towards the customer usage rather than an organization. The intention of the user is using the specific information system and also the user's following usage behavior is also explained by this particular model. By consolidating eight key models from previous prominent theory (i.e. The Theory of Reasoned Action, Technology Acceptance Model, Motivational Model, Theory of Planned Behaviour, The Combined Theory of Planned Behaviour/Technology Acceptance Model, Model of PC Utilisation, Innovation Diffusion Theory, and Social Cognitive Theory), the model is used as a platform in predicting the usage behavior in reference to the information systems.

Nevertheless, psychographic traits are not a consideration in the model. According to Agarwal and Prasad (1999) and agreed by Straub (2009) and Slade, Williams, and Dwivedi, (2014), one of the most noticeable criticisms of the technology acceptance research is the absence of acknowledgment of individual variances. Customer psychological traits and general attitude towards technology have become increasingly important to understand, where most technology-based services create anxiety to those who lack experience in most technologies (Claffey and Brady, 2009; Wang and Wu, 2014). According to Lovelock and Wirtz (2004), E-service cannot be separated from customers' active participation. To apply UTAUT2 in marketing settings, it may not explain enough on the consumers' technology adoption behaviors, mainly because of the high contribution of customers to co-produce the service.

According to Straub (2009), future research on technology adoption needs to examine the consequences of technology towards individual differences so that it can create a holistic understanding on how technology change influences the organization or the individual. Researchers should also be looking at how technology alters individuals' views of technology. So much of the current research focuses on technology adoption too precisely on systems, but what may be professed as a slight change in consumers' psychographic traits may have deeper repercussions on their intention. Therefore, in classifying and qualifying the psychological process of customers' perception, it is necessary to incorporate some individual difference variables. Technology readiness (TR) can be seen as a multidimensional psychographic construct, offering a way to segment online customers based on their underlying positive and negative technology beliefs.

Not much is known about Malaysian customers' technology readiness and how they perceived the value offered by OTA, thus it is difficult to figure out the effectiveness of the system based on their perception on OTA' usage which will then influence customers' behavioral intention. In an academic or practical perspective, knowledge of online consumer behavior is still in a developing stage (Muthaly, Ha, Yeo and, Kim, 2009; Vazquez and Xu, 2009). According to Piercy (2012), there is a need to consider the effect of psychographic factors on the acceptance of online services, since past studies only confirmed the influence of online features such as E-Quality and Technology Acceptance Model (TAM) towards online service adoption. Previous researchers has studied on how consumer characteristics influence technology acceptance (Dabholkar and Bagozzi, 2002; Ellen, Bearden, and Sharma, 1991; Hill, Smith, and Mann, 1987) but the role of Technology Readiness (TR) by Parasuraman (2000) within the Unified Theory of Acceptance and Use of Technology (UTAUT2) by Venkatesh et al. (2003) has been under-explored. Therefore, this study aims to form a better understanding of the effect and relationship of personal characteristics of the customer towards the acceptance of OTA by implementing TR and UTAUT2 as the two main dimensions.

1.4 Research Framework

The following framework is presented along with the proposed hypotheses and subhypotheses of the study. According to Yieh, Chen, and Wei (2012), all technology readiness dimension may influence individuals in various ways. This same goes to UTAUT2 dimensions as all seven dimensions included are selected based on the literature review and their suitability to the current research. Therefore, this study aims to form a better understanding of the effect and relationship of personal characteristics of technology by implementing TR and technology acceptance by using UTAUT2 towards online travel agencies. Figure 1.1 shows the proposed framework and hypotheses of the study.

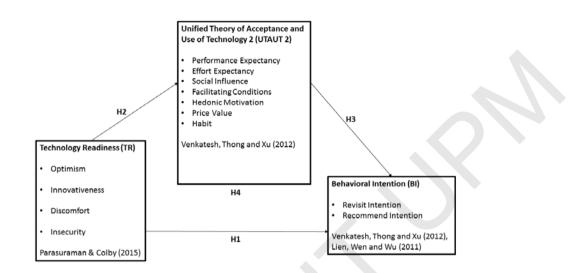


Figure 1.1: Research Framework – Integrating TR with UTAUT2

From the explanation in the previous section, the following are the hypotheses that will be tested throughout the research.

- H1: Technology Readiness influences Behavioral Intention.
- H2: Technology Readiness influences UTAUT2
- H3: UTAUT2 influences Behavioral Intention.
- H4: UTAUT2 mediates the relationship between Technology Readiness and Behavioral Intention

1.5 Research Objective

The primary focus of this study revolves around identifying the significant impact of TR toward UTAUT2 for the OTA. Thus, listed below are the objectives outlined for this study:

- 1. To assess the state of technology readiness level among OTA users.
- 2. To examine the influence of technology readiness on the users' behavioral intention in using OTA.
- 3. To examine the influence of technology readiness on the users' UTAUT2 dimensions in using OTA.
- 4. To examine the influence of UTAUT2 on the users' behavioral intention in using OTA.
- 5. To examine the mediating effect of UTAUT2 on the relationship between technology readiness and behavioral intention.

1.6 Research Question

In manifesting the direction of the study, listed below are the research questions which have been developed:

- 1. What is the state of technology readiness among the user of OTA?
- 2. Does technology readiness influence the users' behavioral intention in using OTA?
- 3. Does technology readiness influence the users' UTAUT2 factors in using OTA?
- 4. Does UTAUT2 influence the users' behavioral intention in using OTA?
- 5. Does UTAUT2 mediate the relationship between technology readiness and behavioral intention?

1.7 Significance Of The Study

1.7.1 Academic Perspective

From the academic perspective, it is expected that the findings of this study will significantly contribute towards additional knowledge on Technology Readiness and Unified Theory of Acceptance and Use of Technology which focus on the hotel sector. Different with the previous integration of TR and TAM or TR and UTAUT, this research includes three important constructs of UTAUT2 such as hedonic motivation, price value, and habit which are crucial in the context of the consumer. This new integrated model will be developed to improve the understandability and deeper insight into general consumer belief of technology and attitudes towards specific technology (Claffey and Brady, 2009; Wang and Wu, 2014). Besides, with the integration of TR and UTAUT2, it will contribute towards broadening the scope of this research as well as the generalizability of the present technology acceptance models; simply by the including the dimension of psychographic characteristics which in return impact on the improvement of amount of variance explained in the dependent variable (Melisa and Indrawati, 2016).

Furthermore, the model also includes the mediating effect of UTAUT2 on technology readiness which will act as an important indicator of customers' behavior changes. With the support of Technology Readiness and UTAUT2, all the above injections of new ideas will, therefore, provide a new body of knowledge as well as enriching the current literature available on online booking experience.

1.7.2 Practical Perspective

From the perspective of the hotel sector, the adoption of technology along with careful consideration of customer readiness and acceptance will help in reducing the operational cost. This is particularly true when promoting and marketing are more demanding recently prompting operators to find creative ways to penetrate a bigger market that is

proven to be the only solution in this situation. However, every promotion and marketing strategies will be outdated eventually. Technology, in this case, OTA will be a better solution for most hotels in a longer run. In fact, the investment will be worthwhile as technology today is relatively inexpensive as compared to the cost of extensive promotion and marketing (Azdel, Khalid, Radzi, and Yusof, 2016).

This study may also create awareness on the potential benefits in understanding consumer behavior on the usage of OTA so that it can be adapted in the hotel. If the customers like the system and believe that the system does improve the reservation experience, promoting the usage of OTA will benefit the hotel sector in general. OTA is gradually becoming a trend in the hotel sector nowadays due to the fun of using it. The number is still low in this country but if this technology is carefully considered and integrated into the operation, it could be one of the tools to achieve competitive advantage over the other competitors (Azdel, Awang, Yusof, Radzi, and Ahmad, 2018). Industry practitioners are expecting this booking method to boom in the near future hence when the time comes, then the necessity to sustain and survive in the industry will be seriously taken into account. Hence, this study will be beneficial to the hotel managers in a way that it allows them to structure strategies to ensure that guest loyalty is retained.

This particular study will also provide insight into the behavior of the guest who uses OTA. It is never denied that the knowledge regarding the effect of TR can benefit the managers in order to identify the potential adopters as well as heavy and light users who utilize their technology-based services and offerings. It will also be beneficial for the managers in order for them to fine-tuning their related product positioning and also communication strategies so that it will match the TR profiles of potential customers for distinctive stages involved in the lifecycle of the product.

1.8 Definition Of Terms

1.8.1 Online Travel Agencies

Online travel agents are basically traditional travel agents, except customers need selfserve, as they operate online. They are websites where consumers can conduct multiple searches, plan and place an order for a booking (Qi, Law, and Buhalis, 2013).

1.8.2 Technology Readiness

Individual's propensity to embrace and use new technologies for accomplishing goals in home life and at work. It is a state of mind, resulting from a gestalt of mental enablers and inhibitors that collectively determine a person's predisposition to use new technology (Parasuraman, 2000).

1.8.3 Unified Theory of Acceptance and Use of Technology (UTAUT)

The technology acceptance model explains the intentions of the users in using information technology and subsequent usage behavior. UTAUT is one of the most popular technology acceptance theories which was developed by unifying eight different theories. It aims to explain user intentions by proposing a unified model for information system use (Venkatesh et al., 2003).

1.8.4 Behavioral Intention

An indication of an individual's readiness to perform a given behavior is known as behavioral intention. It is assumed to be an immediate antecedent of behavior. It is based on attitude toward the behavior, subjective norm, and perceived behavioral control, with each predictor weighted for its importance in relation to the behavior and population of interest (Lien, Wen, and Wu, 2011).

1.9 Organization Of The Thesis

The thesis involved six chapters which include this chapter as well. Mainly, Chapter 2 focuses on the literature, which is apparently relevant to Online Travel Agency, Human Behavior, Behavior Intention, TR and UTAUT. The chapter also includes the relationship between constructs, theoretical framework and the hypotheses posited in this study. Chapter 3 covers the methodology used in the study. It includes a description of the research approach, the population and sampling design, items development, the data collection procedure, and the statistical methods used to analyze the data. Chapter 4 discusses all the findings from the analysis of data collected for this research. Chapter 5 also covers data analysis but only the Structural Equation Model analysis. Lastly, Chapter 6 conclude the research by discussing the empirical findings of the research based on the research questions, the implications of the study resulting from the discussion of the study as well as recommendations, the study limitations, future trends forecast and the need for further research on the topic.

REFERENCES

- Aaker, D.A., Kumar, V., Day, G.S., and Lawley, M. (2005). Marketing research. The pacific rim edition. Milton, Queensland: John Wiley and Sons Australia, Ltd.
- Acheampong, P., Zhiwen, L., Antwi, H. A., Otoo, A. A. A., Mensah, W. G., and Sarpong, P. B. (2017). Hybridizing an Extended Technology Readiness Index with Technology Acceptance Model (TAM) to Predict E-Payment Adoption in Ghana. *American Journal of Multidisciplinary Research*, 5(2) 172-184.
- Agarwal, R., and Karahanna, E. (2000). Time flies when you're having fun: Cognitive absorption and beliefs about information technology usage. *MIS quarterly*, 24(4) 665-694.
- Agarwal, R., and Prasad, J. (1998). A conceptual and operational definition of personal innovativeness in the domain of information technology. *Information systems research*, 9(2), 204-215.
- Agarwal, R., and Prasad, J. (1999). Are individual differences germane to the acceptance of new information technologies? *Decision Sciences*, *30*(2), 361–391.
- Agarwal, R., Sambamurthy, V., and Stair, R. M. (2000). The evolving relationship between general and specific computer self-efficacy an empirical assessment. *Information systems research*, *11*(4), 418-430.
- Agarwal, S., and Teas, R.K. (2002). Cross-national applicability of a perceived quality model. *Journal of Product and Brand Management*, 11(4), 213-236.
- Ahn, J., Butler, B. S., Alam, A., and Webster, S. A. (2013). Learner participation and engagement in open online courses: Insights from the Peer 2 Peer University. *Journal of Online Learning and Teaching*, 9(2), 160-171.
- Ahn, T., Ryu, S., and Han, I. (2007). The impact of web quality and playfulness on user acceptance of online retailing. *Information and Management*, 44(3), 263-275.
- Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. *In Action control* (pp. 11-39). Berlin, Heidelberg: Springer.
- Ajzen, I., and Fishbein, M. (1980). Understanding attitudes and predicting social behavior. Upper Saddle River, New Jersey: Prentice Hall.
- Akhtar, N., and Khawaja, K. F. (2018). Investigating Mobile Learning Acceptance in Pakistan: The Moderating Effect of Discomfort and Insecurity in Unified Theory of Acceptance and Use of Technology. *Journal of Managerial Sciences*, 12(1), 75-87.
- Alexandris, K., Dimitriadis, N., and Markata, D. (2002). Can perceptions of service quality predict behavioral intentions? An exploratory study in the hotel sector in Greece. *Managing Service Quality: An International Journal*, 12(4), 224-231.

- Al-Hawari, M., and Ward, T. (2006). The effect of automated service quality on Australian banks' financial performance and the mediating role of customer satisfaction. *Marketing Intelligence and Planning*, 24(2), 127-147.
- Allen, D.R., and Rao, T.R. (2000). *Analysis of customer satisfaction data*. Milwaukee, Wisconsin: ASQ Quality Press.
- AlMohaimmeed, B. M. (2012). Customer behavior towards Internet banking: A study of the dormant users of Saudi Arabia. (Doctoral dissertation, University of Birmingham). Retrieved from http://etheses.bham.ac.uk/3349/1/Almohaimmeed_12_PhD.pdf
- Al-Qeisi, K. I. (2009). Analyzing the use of UTAUT model in explaining an online behavior: Internet banking adoption. (Doctoral dissertation, Brunel University). Retrieved from https://bura.brunel.ac.uk/bitstream/2438/3620/1/FulltextThesis.pdf
- Alsharif, F. F. (2013). Investigating the Factors Affecting On-line Shopping Adoption in Saudi Arabia. (Doctoral dissertation, De Montfort University). Retrieved from https://pdfs.semanticscholar.org/1498/e2a611b3191012b8060fafd2f9b74e1a11 16.pdf
- Anderson, J. E., Schwager, P. H., and Kerns, R. L. (2006). The drivers for acceptance of tablet PCs by faculty in a college of business. *Journal of Information Systems Education*, 17(4), 429-440.
- Anderson, J.C., and Gerbing, D.W. (1982). Some methods for respecifying measurement models to obtain unidimensional construct measurement. *Journal of Marketing Research*, 19(4), 453-460.
- Ary, D., Jacobs, L. C., and Razavieh, A. (1972). Introduction to Research in Education. New York: Holt Rinehart and Winston.
- Asher, H.B. (1983). Causal modeling. University paper series on quantitative applications in the social sciences. Beverly Hills, California: Sage Publications.
- Azdel, A. A., Awang, K. W., Yusof, R. N. R., Radzi, S. M., and Ahmad, N. A. (2018). Customers' psychographic valuation and acceptance towards online travel agencies. *International Journal of Academic Research in Business and Social Sciences*, 8(16), 231–246.
- Azdel, A. A., Khalid, H., Radzi, S. M., and Yusof, R. N. R. (2016). Embedding psychographic traits into UTAUT2: A conceptual paper on online travel agency (OTA) users. In Heritage, Culture and Society: Research agenda and best practices in the hospitality and tourism industry. Proceedings of the 3rd International Hospitality and Tourism Conference, IHTC 2016 and 2nd International Seminar on Tourism, ISOT 2016 (pp. 489-494).
- Bagozzi, R. P. (2007). The legacy of the technology acceptance model and a proposal for a paradigm shift. *Journal of the Association for Information Systems*, 8(4), 243-254.

- Bagozzi, R.P. (1981). Evaluating structural equation models with unobservable variables and measurement error: a comment. *Journal of Marketing Research*, *18*(3), 375-381.
- Bagozzi, R.P., and Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16(1), 74-94.
- Baker, D. A., and Crompton, J. L. (2000). Quality, satisfaction, and behavioral intentions. *Annals of Tourism Research*, 27(3), 785-804.
- Baltas, G. (2003). A combined segmentation and demand model for store brands. *European Journal of Marketing*, *37*(10), 1499-1513.
- Baptista, G., and Oliveira, T. (2015). Understanding mobile banking: The unified theory of acceptance and use of technology combined with cultural moderators. *Computers in Human Behavior*, *50*, 418-430.
- Baron, R.M., and Kenny, D.A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and social Psychology*, 51(6), 1173-1182.
- Bastakis, C., Buhalis, D., and Butler, R. (2004). The perception of small and medium sized tourism accommodation providers on the impacts of the tour operators' power in Eastern Mediterranean. *Tourism management*, 25(2), 151-170.
- Baumgartner, H. (2002). Toward a personology of the consumer. *Journal of Consumer Research*, 29(2), 286-292.
- Bhatnagar, N., Lurie, N. H., and Zeithaml, V. A. (2002). Reasoning about online and offline service experiences: the role of domain-specificity. NA-Advances in Consumer Research 29, 259-260.
- Bhattacherjee, A. (2001). Understanding information systems continuance: an expectation-confirmation model. *MIS Quarterly*, 25(3), 351-370.
- Bhattacherjee, A. (2012). Social science research: principles, methods, and practices. Charleston, South Carolina: Createspace Independent Publication
- Bitner, M. J., Ostrom, A. L., and Meuter, M. L. (2002). Implementing successful selfservice technologies. *The Academy of Management Executive*, 16(4), 96-108.
- Blaikie, N. (2003). Analyzing quantitative data: From description to explanation. Thousand Oaks, California: Sage
- Bland, J.M., and Altman, D.G. (1997). Statistics notes: Cronbach's alpha. *The Bmj*, *314*(7080), 314-572.
- Bloomberg Intelligence (2016). *Online travel M&A in focus in OTA market*. Retrieved from https://www.bloomberg.com/professional/blog/consolidation-in-online-travel/

- Bobbitt, L. M., and Dabholkar, P. A. (2001). Integrating attitudinal theories to understand and predict use of technology-based self-service: the internet as an illustration. *International Journal of Service Sector Management*, *12*(5), 423-450.
- Bollen, K.A. (1990). Overall fit in covariance structural models: two types of sample size effects. *Psychological Bulletin*, 107(2), 256-259.
- Borrero, J. D., Yousafzai, S. Y., Javed, U., and Page, K. L. (2014). Expressive participation in Internet social movements: Testing the moderating effect of technology readiness and sex on student SNS use. *Computers in Human Behavior*, 30, 39-49.
- Boulding, W., Kalra, A., Staelin, R., and Zeithmal, V.A. (1993). A Dynamic Process Model of Sevice Quality: From Expectations to Behavioral Intentions. *Journal* of Marketing Research, 30(1), 7-27.
- Brady, M.K., and Robertson, C.J. (1999). An exploratory study of service value in the USA and Ecuador. *International Journal of Service Industry Management*, 10(5), 469-486.
- Brown, S. A., and Venkatesh, V. (2005). Model of adoption of technology in households: A baseline model test and extension incorporating household life cycle. *MIS Quarterly*, 29(3), 399-426.
- Brown, T. A. (2014). *Confirmatory factor analysis for applied research*. New York City, New York: Guilford Publications.
- Bruner, G. C., and Kumar, A. (2007). Attitude toward location-based advertising. *Journal of interactive advertising*, 7(2), 3-15.
- Bryman, A., and Bell, E. (2007). *Business research methods*. Oxford, United Kingdom: Oxford University Press.
- Buhalis, D. (2003). *eTourism: Information technology for strategic tourism management*. Bournemouth, United Kingdom: Pearson.
- Buhalis, D., and Law, R. (2008). Progress in information technology and tourism management: 20 years on and 10 years after the Internet—The state of eTourism research. *Tourism Management*, 29(4), 609-623.
- Buhalis, D., & Sinarta, Y. (2019). Real-time co-creation and nowness service: lessons from tourism and hospitality. *Journal of Travel & Tourism Marketing*, *36*(5), 563-582.
- Bullock, H., Harlow, L. L. and Mulaik, S.A. (1994). Causation issues in structural equation modeling. *Structural equation modeling: A Multidisciplinary Journal*, *1*(3), 253-267.
- Burton-Jones, A., and Hubona, G. S. (2006). The mediation of external variables in the technology acceptance model. *Information and Management*, 43(6), 706-717.

- Byrne, B. M. (2016). Structural equation modeling with AMOS: Basic concepts, applications, and programming. Madison Avenue, New York: Routledge.
- Byrne, B.M. (1994). *Structural Equation Modeling with EQS and EQS/Windows: Basic concept, applications and programming.* Bonhill Street, London: Sage Publications.
- Carlsson, C., Carlsson, J., Hyvonen, K., Puhakainen, J., and Walden, P. (2006). Adoption of mobile devices/services - searching for answers with the UTAUT. Proceedings of the 39th Annual Hawaii International Conference on System Sciences, 2006.
- Carver, C. S., and Scheier, M. F. (2014). Dispositional optimism. *Trends in cognitive sciences*, 18(6), 293-299.
- Cassidy, L., & Pabel, A. (2019). Travel review website usage: a cultural perspective. Journal of Hospitality and Tourism Technology 10(2).
- Cavana, R. Y., Delahaye, B. L., and Sekaran, U. (2001). *Applied business research: Qualitative and quantitative methods*. McDougall Street, Milton: John Wiley and Sons.
- Central Bank of Malaysia (2019). *Exchange Rate*. Retrieved from http://www.bnm.gov.my/index.php?ch=statistic&pg=stats_exchangerates&lan g=en&StartMth=3&StartYr=2019&EndMth=3&EndYr=2019&sess_time=120 0&pricetype=Mid&unit=rm
- Chandon, J.L., Leo, P.Y., and Philippe, J. (1997). Service encounter dimensions-a dyadic perspective: Measuring the dimensions of service encounters as perceived by customers and personnel. *International Journal of Service Industry Management*, 8(1), 65-86.
- Chen, S.-C., and Li, S.-H. (2010). Consumer adoption of e-service: Integrating technology readiness with the theory of planned behavior. *African Journal of Business Management*, 4(16), 3556.
- Chen, S.C., Chen, H.H., and Chen, M.F. (2009). Determinants of satisfaction and continuance intention towards self-service technologies. *Industrial Management and Data Systems*, 109(9), 1248-1263.
- Chen, Z., and Dubinsky, A.J. (2003). A conceptual model of perceived customer value in e-commerce: A preliminary investigation. *Psychology and Marketing*, 20(4), 323-347.
- Chin, W.W. (1998). The partial least squares approach to structural equation modeling. *Modern methods for business research, 295*(2), 295-336.
- Chong, A. Y.-L., and Ngai, E. W. (2013). *What Influences Travellers' Adoption of a Location-based Social Media Service for Their Travel Planning*? Proceedings of the Pacific Asia Conference on Information Systems.

- Choudrie, J., and Dwivedi, Y. K. (2005). Investigating the research approaches for examining technology adoption issues. *Journal of Research Practice*, 1(1), 1-12.
- Chu, R. K., and Choi, T. (2000). An importance-performance analysis of hotel selection factors in the Hong Kong hotel sector: a comparison of business and leisure travelers. *Tourism management*, 21(4), 363-377.
- Chua, W. F. (1986). Radical developments in accounting thought. *Accounting Review*, 61(4), 601-632.
- Churchill, G.A. (2004). *Marketing research: Methodological foundations*, (7th Ed.) Cincinnati, Ohio: South-Western Publishing.
- Churchill, G.A. and Iacobucci, D. (2002). *Marketing research: Methodological foundations*. Cincinnati, Ohio: South-Western Publishing.
- Chuttur, M. Y. (2009). Overview of the technology acceptance model: Origins, developments, and future directions. *Working Papers on Information Systems*, 9(37), 1-21.
- Claffey, E., and Brady, M. (2009). Understanding technology adoption within the service dominant logic paradigm. Proceedings of the 2009 Naples Forum on Service.
- Cobanoglu, C., Corbaci, K., and Ryan, B. (2001). A comparative study: the impact of technology in lodging properties in the United States and Turkey. *International Journal of Hospitality Information Technology*, 2(1), 23-40.
- Cocosila, M., Archer, N., and Yuan, Y. (2009). Early investigation of new information technology acceptance: A perceived risk-motivation model. *Communications of the Association for Information Systems*, 25(1), 30.
- Cognizant (2014). 2014 Annual Report. Retrieved from https://www.cognizant.com/SiteDocuments/Cognizant_Annual_Report_2014 L.pdf
- Cohen, J. (1992). A power primer. Psychological Bulletin, 112(1), 155-159.
- Colton, D., and Covert, R.W. (2007). *Designing and constructing instruments for social research and evaluation*. San Francisco, California: John Wiley and Sons.
- Compeau, D. R., and Higgins, C. A. (1995). Computer self-efficacy: Development of a measure and initial test. *MIS quarterly*, *19*(2), 189-211.
- ComScore (2016). Comscore Releases February 2016 U.S. Desktop Search Engine Rankings. Retrieved from https://www.comscore.com/Insights/Rankings/comScore-Releases-February-2016-US-Desktop-Search-Engine-Rankings

Connelly, L. M. (2008). Pilot studies. Medsurg Nursing, 17(6), 411-413.

- Cooper, D., and Schindler, P. (2005). *Business Research Methods*. New York City, New York: McGraw- Hill Companies Incorporated.
- Cronin Jr, Joseph. J., and Taylor, S. A. (1992). Measuring service quality: a reexamination and extension. *The Journal of Marketing*, 56(3), 55-68.
- Cronin, J. J., Brady, M. K., and Hult, G. T. M. (2000). Assessing the effects of quality, value, and customer satisfaction on consumer behavioral intentions in service environments. *Journal of retailing*, 76(2), 193-218.
- Cudeck, R. (2000). Exploratory factor analysis. In H. E. A. Tinsley and S. D. Brown (Eds.), *Handbook of applied multivariate statistics and mathematical modeling* (pp. 265-296). San Diego, California: Academic Press.
- Cunningham, C. E., Woodward, C. A., Shannon, H. S., MacIntosh, J., Lendrum, B., Rosenbloom, D., and Brown, J. (2002). Readiness for organizational change: A longitudinal study of workplace, psychological and behavioral correlates. *Journal of Occupational and Organizational Psychology*, 75(4), 377-392.
- Curran, J. M., Meuter, M. L., and Surprenant, C. F. (2003). Intentions to use self-service technologies: a confluence of multiple attitudes. *Journal of Service Research*, 5(3), 209-224.
- Curran, J.M., and Meuter, M.L. (2005). Self-service technology adoption: comparing three technologies. *Journal of Services Marketing*, 19(2), 103-113.
- Dabholkar, P. A. (1996). Consumer evaluations of new technology-based self-service options: an investigation of alternative models of service quality. *International Journal of research in Marketing*, 13(1), 29-51.
- Dabholkar, P. A., and Bagozzi, R. P. (2002). An attitudinal model of technology-based self-service: moderating effects of consumer traits and situational factors. *Journal of the Academy of Marketing Science*, *30*(3), 184-201.
- Davies, C. (2004). *Finding and knowing: psychology, information, and computers.* Abingdon, United Kingdom: Routledge.
- Davies, M. A., Waite, K., Pookulangara, S., Hawley, J., and Xiao, G. (2011). Explaining multi-channel consumer's channel-migration intention using the theory of reasoned action. *International Journal of Retail and Distribution Management*, 39(3), 183-202.
- Davis, C. S., Gallardo, H. L., and Lachlan, K. L. (2010). *Straight talk about communication research methods*. Dubuque, Iowa: Kendall Hunt.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-340.
- Davis, F. D., Bagozzi, R. P., and Warshaw, P. R. (1989). User acceptance of computer technology: a comparison of two theoretical models. *Management science*, 35(8), 982-1003.

- De Vaus, D. (2001). Research design in social research. Thousand Oaks, California: Sage.
- Demirci, A.E., and Ersoy, N.F. (2008). Technology readiness for innovative high-tech products: how consumers perceive and adopt new technologies. *The Business Review*, *11*(1), 302-308.
- Deng, S., Liu, Y., and Qi, Y. (2011). An empirical study on determinants of web-based question-answer services adoption. *Online Information Review*, 35(5), 789-798.
- Dennis, C., Merrilees, B., Jayawardhena, C., and Wright, L.T., (2009). E-consumer behavior. European Journal of Marketing, 43(9/10), 1121-1139.
- DeVellis, R.F. (2016). *Scale development: Theory and applications*. Thousand Oaks, California: Sage publications.
- Dillman, D.A., Tortora, R.D., and Bowker, D. (1998). *Principles for constructing web surveys*. Paper presented at the 1998 Joint Meetings of the American Statistical Association, Dallas, Texas.
- Dixon, M., Kimes, S. E., and Verma, R. (2009). Customer preferences for restaurant technology innovations. *Cornell Hospitality Report*, 9(7), 6-16.
- Dwivedi, Y. K., Shareef, M. A., Simintiras, A. C., Lal, B., and Weerakkody, V. (2016). A generalized adoption model for services: A cross-country comparison of mobile health (m-health). *Government Information Quarterly*, 33(1), 174-187.
- Eagly, A. H., and Chaiken, S. (1993). *The psychology of attitudes*. San Diego, California: Harcourt Brace Jovanovich College Publishers.
- Economic Transformation Program (2014). *ETP Annual Report 2014*. Retrieved from http://etp.pemandu.gov.my/annualreport2014/upload/08_NKEA06_ENG_Tou .pdf
- Efron, B. (1979). Computers and the theory of statistics: thinking the unthinkable. *SIAM review*, 21(4), 460-480.
- Ellen, P. S., Bearden, W. O., and Sharma, S. (1991). Resistance to technological innovations: an examination of the role of self-efficacy and performance satisfaction. *Journal of the Academy of Marketing Science*, *19*(4), 297-307.
- Elliott, K. M., Meng, J., and Hall, M. C. (2008). Technology readiness and the likelihood to use self-service technology: Chinese vs. American consumers. *Marketing Management Journal*, 18(2), 20-31.
- Emerald, N. D. (2004). Consumerism, nature, and the human spirit. (Doctoral dissertation, Virginia Polytechnic Institute and State University). Retrieved from https://vtechworks.lib.vt.edu/bitstream/handle/10919/37161/capstonefinal11-29-04.pdf?sequence=1

- Erdoğmuş, N., and Esen, M. (2014). The socio-demographic characteristics and career preparation of the rectors in Turkey. *Yükseköğretim Dergisi*, 4(1), 44-53.
- Eriksson, N. (2013). Drivers and barriers of mobile travel and tourism service adoption: a study of individual perceptions and business model development in a travel and tourism context. (Doctoral dissertation, Abo Akademi University). Retrieved from https://www.doria.fi/bitstream/handle/10024/92187/eriksson_niklas.pdf?seque nce=2
- Escobar-Rodríguez, T., and Carvajal-Trujillo, E. (2013). An evaluation of Spanish hotel websites: Informational vs. relational strategies. *International Journal of Hospitality Management*, 33, 228-239.
- Esen, M., and Erdogmus, N. (2014). Effects of Technology Readiness on Technology Acceptance in E-HRM: Mediating Role of Perceived Usefulness. *The Journal* of Knowledge Economy & Knowledge Management, 9(1), 7-21.
- Field, A. (2000). *Discovering Statistics using SPSS for Windows*. Thousand Oaks, California: Sage Publications.
- Fishbein, M., and Ajzen, I. (1977). Belief, attitude, intention, and behavior: An introduction to theory and research. Boston, Massachusetts: Addison Wesley.
- Fisk, R. P., Patricio, L., Lin, J.-S. C., and Chang, H.-C. (2011). The role of technology readiness in self-service technology acceptance. *Managing Service Quality: An International Journal*, 21(4), 424-444.
- Fornell, C., and Larcker, D.F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50.
- Frambach, R. T., and Schillewaert, N. (2002). Organizational innovation adoption: A multi-level framework of determinants and opportunities for future research. *Journal of Business Research*, 55(2), 163-176.
- Freedman, D.A. (2000). *Sampling*. Retrieved from http://www.stat.berkeley.edu/~census/sample.pdf
- Garrow, L., Ferguson, M., Keskinocak, P., and Swann, J. (2006). Expert opinions: Current pricing and revenue management practice across US industries. *Journal* of Revenue and Pricing Management, 5(3), 237-247.
- Gefen, D., Karahanna, E., and Straub, D. W. (2003). Trust and TAM in online shopping: an integrated model. *MIS Quarterly*, 27(1), 51-90.
- GFK (2015). A third of Malaysian travelers go online for their travel booking from start to finish: GfK. Retrieved from http://www.gfk.com/insights/press-release/athird-of-malaysian-travelers-go-online-for-their-travel-booking-from-start-tofinish-gfk/

- Godoe, P., and Johansen, T. (2012). Understanding adoption of new technologies: Technology readiness and technology acceptance as an integrated concept. *Journal of European Psychology Students*, 3(1).
- Gollwitzer, P. M. (1996). Benefits of Planning. The psychology of action: Linking cognition and motivation to behavior. New York City, New York: Guilford Press.
- Google and IpsosMediaCT. (2015). *The 2012 Traveler*. Retrieved from http://www.slideshare.net/kornfeind/google-the-2012-traveler.
- Green, C. E., and Lomanno, M. V. (2012). *Distribution channel analysis: A guide for hotels*. McLean, Virginia: HSMAI foundation.
- Gronflaten, O. (2009). Predicting travelers' choice of information sources and information channels. *Journal of Travel Research*, 48(2), 230-244.
- Guba, E. G., and Lincoln, Y. S. (1994). Competing paradigms in qualitative research. *Handbook of qualitative research*, 2(105), 163-194.
- Guhr, N., Loi, T., Wiegard, R., and Breitner, M. H. (2013). Technology Readiness in Customers' Perception and Acceptance of Mobile-Payment: An Empirical Study in Finland, Germany, the USA, and Japan. Proceeding of the 11th International Conference on Wirtschaftsinformatik (pp.119-133). Leipzig, Germany.
- Gumussoy, C. A., Calisir, F., and Bayram, A. (2007, December). Understanding the behavioral intention to use ERP systems: An extended technology acceptance model. Proceeding of 2007 IEEE Industrial Engineering and Engineering Management (pp. 2024-2028).
- Guo, X., Ling, L., Yang, C., Li, Z., and Liang, L. (2013). Optimal pricing strategy based on market segmentation for service products using online reservation systems: An application to hotel rooms. *International Journal of Hospitality Management*, 35, 274-281.
- Gutek, B. A., and Bikson, T. K. (1985). Differential experiences of men and women in computerized offices. *Sex Roles*, *13*(3-4), 123-136.
- Habing, B. (2003). *Exploratory factor analysis*. Retrieved from http://people.stat.sc.edu/habing/courses/530EFA.pdf
- Hahn, K., and Kim, J. (2009). The effect of offline brand trust and perceived internet confidence on online shopping intention in the integrated multi-channel context. *International Journal of Retail and Distribution Management*, 37(2), 126-141.
- Hair, J.F, Bush, R.P. and Ortinau, D.J. (2006). *Marketing research: Within changing information environment* (3rd ed.). New York City, New York: McGraw-Hill Irwin.

- Hair, J.F., Anderson, R.E., Tatham, R.L., and Black, W.C. (1998). *Multivariate data analysis* (5th ed.). Upper Saddle River, New Jersey: Prentice-Hall.
- Hair, J.F., Black, W.C., Babin, B.J., and Anderson, R.E. (2010). *Multivariate data analysis* (7th ed.). Upper Saddle River, New Jerse: Pearson.
- Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E., and Tatham, R.L. (2006). *Multivariate data analysis* (6th ed.). Upper Saddle River, New Jerse: Pearson Prentice Hall.
- Hallikainen, H., and Laukkanen, T. (2016). *How technology readiness explains* acceptance and satisfaction of digital services in B2b healthcare sector? Proceeding of Pacific Asia Conference on Information Systems (p. 294).
- Han, H., Hsu, L.-T. J., and Sheu, C. (2010). Application of the theory of planned behavior to green hotel choice: Testing the effect of environmental friendly activities. *Tourism Management*, 31(3), 325-334.
- Hashim, J. (2007). Information communication technology (ICT) adoption among SME owners in Malaysia. *International Journal of Business and Information*, 2(2), 221-240.
- Hashim, R. (2001). Stakeholder expectation of hotel management education: a Malaysian perspective. (Doctoral Dissertation, Sheffield Hallam University). Retrieved from http://shura.shu.ac.uk/19766/1/10697068.pdf
- HawkPartners LLC (2012), Hotel Channel Usage Study, Study Highlights and Implication for Marketers. Retrieved from http://rss.hsyndicate.com/file/152004811.pdf
- Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. *Communication monographs*, 76(4), 408-420.
- Hayes, A.F. (2013). Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-based Approach. New York City, New York: Guilford Press.
- Henard, D. H., and Szymanski, D. M. (2001). Why some new products are more successful than others? *Journal of marketing Research*, 38(3), 362-375.
- Herrero, Á. and San Martín, H. (2012). Developing and testing a global model to explain the adoption of websites by users in rural tourism accommodations. *International Journal of Hospitality Management*, *31*(4), 1178-1186.
- Herrmann, A., Huber, F., and Braunstein, C. (2000). Market-driven product and service design: Bridging the gap between customer needs, quality management, and customer satisfaction. *International Journal of Production Economics*, 66(1), 77-96.

- Heung, V. C., and Lam, T. (2003). Customer complaint behavior towards hotel restaurant services. *International Journal of Contemporary Hospitality Management*, 15(5), 283-289.
- Hill, T., Smith, N. D., and Mann, M. F. (1987). Role of efficacy expectations in predicting the decision to use advanced technologies: The case of computers. *Journal of Applied Psychology*, 72(2), 307-313.
- Holbrook, M.B. (2006). Consumption experience, customer value, and subjective personal introspection: An illustrative photographic essay. *Journal of Business Research*, 59(6), 714-725.
- Hospitalitynet (2018). *The Top Hotel Trends to Watch in 2018, According to the Industry*. Retrieved from https://www.hospitalitynet.org/news/4086325.html
- Hospitalitynet (2016). *STR: US hotel performance for October 2016*. Retrieved from http://www.hospitalitynet.org/news/4079513.html
- Hotelmarketing (2012). Online travel to represent a third of total global travel market. Retrieved from http://hotelmarketing.com/index.php/content/article/online_travel_to_represen t_a_third_of_total_global_travel_market
- Howarth, C. I. (1988). The relationship between objective risk, subjective risk, and behavior. *Ergonomics*, 31(4), 527-535.
- Hoyle, R.H. (1995). Structural Equation Modeling: Concepts, Issues, and Applications. Thousand Oaks, California: Sage.
- Hu, H.-H., Kandampully, J., and Juwaheer, T. D. (2009). Relationships and impacts of service quality, perceived value, customer satisfaction, and image: an empirical study. *The Service Industries Journal*, 29(2), 111-125.
- Humbani, M., & Wiese, M. (2018). A cashless society for all: Determining consumers' readiness to adopt mobile payment services. *Journal of African Business*, 19(3), 409-429.
- Hung, S. W., and Cheng, M. J. (2013). Are you ready for knowledge sharing? An empirical study of virtual communities. *Computers and Education*, 62, 8-17.
- Im, S., Bayus, B. L., and Mason, C. H. (2003). An empirical study of innate consumer innovativeness, personal characteristics, and new-product adoption behavior. *Journal of the Academy of Marketing Science*, *31*(1), 61-73.
- Inversini, A., and Buhalis, D. (2009). *Information convergence in the long tail: The case* of tourism destination information. Proceedings of Information and Communication Technologies in Tourism 2009 (pp. 381-392).
- Izquierdo-Yusta, A., and Pilar Martínez-Ruiz, M. (2011). Assessing the consumer's choice of purchase channel in the tourism sector: Evidence from Spain. *EuroMed Journal of Business*, 6(1), 77-99.

- Janda, S., Trocchia, P. J., and Gwinner, K. P. (2002). Consumer perceptions of Internet retail service quality. *International Journal of Service Sector Management*, 13(5), 412-431.
- Janssens, W., De Pelsmacker, P., and Van Kenhove, P. (2008). *Marketing research with SPSS*. Harlow, United Kingdom: Pearson Education.
- Jarvis, C.B., MacKenzie, S.B., and Podsakoff, P.M. (2003). A critical review of construct indicators and measurement model misspecification in marketing and consumer research. *Journal of Consumer Research*, 30(2), 199-218.
- Jiang, P., and Rosenbloom, B. (2005). Customer intention to return online: price perception, attribute-level performance, and satisfaction unfolding over time. *European Journal of Marketing*, 39(1/2), 150-174.
- Jöreskog, K.G. (1978). Structural analysis of covariance and correlation matrices. *Psychometrika*, 43(4), 443-477.
- Kaplan, M. F., and Anderson, N. H. (1973). Information integration theory and reinforcement theory as approaches to interpersonal attraction. *Journal of Personality and Social Psychology*, 28(3), 301-312.
- Karahanna, E., Straub, D. W., and Chervany, N. L. (1999). Information technology adoption across time: a cross-sectional comparison of pre-adoption and postadoption beliefs. *MIS Quarterly*, 23(2), 183-213.
- Keeney, R.L. (1999). The value of Internet commerce to the customer. *Management Science*, 45(4), 533-542.
- Kent, R. (1999). *Marketing research: Measurement, method, and application*. London: International Thomson Business.
- Kim, J., Wei, S., and Ruys, H. (2003). Segmenting the market of West Australian senior tourists using an artificial neural network. *Tourism Management*, 24(1), 25-34.
- Kim, S. (2003). Research paradigms in organizational learning and performance: Competing modes of inquiry. *Information Technology, Learning, and Performance Journal*, 21(1), 9.
- Kim, W. G., and Kim, D. J. (2004). Factors affecting online hotel reservation intention between online and non-online customers. *International Journal of Hospitality Management*, 23(4), 381-395.
- Kline, R.B. (2015). *Principles and practice of structural equation modeling* (4th Ed.). New York City, New York: Guilford publications.
- Komulainen, H., Mainela, T., Tähtinen, J., and Ulkuniemi, P. (2004). *Exploring customer perceived value in a technology-intensive service innovation*. Proceedings of the 20th Annual IMP-Conference (pp. 2-4).

- Kotler, P., Bowen, J. T., and Makens, J. C. (2010). *Marketing for Hospitality and Tourism*. Upper Saddle River, New Jersey: Prentice Hall.
- Kraemer, H., Kiernan, M., Essex, M., and Kupfer, D.J. (2008). How and why criteria defining moderators and mediators differ between the Baron and Kenny and MacArthur approaches. *Health Psychology*, 27(2), 101-108.
- Krejcie, R.V., and Morgan, D.W. (1970). Determining sample size for research activities. *Education and Psychological Measurement*, 30(3), 607-610.
- Kundu, S. C., and Mor, A. (2017). Workforce diversity and organizational performance: a study of IT industry in India. *Employee Relations*, 39(2), 160-183.
- Kwon, H. S., and Chidambaram, L. (2000). A test of the technology acceptance model: The case of cellular telephone adoption. Proceedings of the 33rd Annual Hawaii International Conference on System Sciences (pp. 7-16).
- Kwon, W.-S., and Lennon, S. J. (2009). What induces online loyalty? Online versus offline brand images. *Journal of Business Research*, 62(5), 557-564.
- Lai, M.L. (2008). Technology readiness, internet self-efficacy and computing experience of professional accounting students. *Campus-Wide Information Systems*, 25(1), 18-29.
- Lai, Y.-H., Huang, H.-C., Lu, R.-S., and Chang, C.-M. (2013). The effects of website trust, perceived ease of use, and perceived usefulness on consumers' online booking intention: Evidence from Taiwan BandB sector. *Life Science Journal*, 10(2), 1516-1523.
- Lam, S. Y., Chiang, J., and Parasuraman, A. (2008). The effects of the dimensions of technology readiness on technology acceptance: An empirical analysis. Journal of interactive marketing, 22(4), 19-39.
- Lankton, N. K., Wilson, E. V., and Mao, E. (2010). Antecedents and determinants of information technology habit. *Information and Management*, 47(5), 300-307.
- Lanseng, E. J., and Andreassen, T. W. (2007). Electronic healthcare: a study of people's readiness and attitude toward performing self-diagnosis. *International Journal* of Service Sector Management, 18(4), 394-417.
- Lapierre, J. (2000). Customer-perceived value in industrial contexts. Journal of Business and Industrial Marketing, 15(2/3), 122-145.
- Law, R. (2009). Disintermediation of hotel reservations: The perception of different groups of online buyers in Hong Kong. *International Journal of Contemporary Hospitality Management*, 21(6), 766-772.
- Law, R., and Hsu, C. H. (2006). Importance of hotel website dimensions and attributes: perceptions of online browsers and online purchasers. *Journal of Hospitality and Tourism Research*, *30*(3), 295-312.

- Law, R., and Wong, R. (2010). Analyzing room rates and terms and conditions for the online booking of hotel rooms. Asia Pacific Journal of Tourism Research, 15(1), 43-56.
- Laws, E. (2004). Improving tourism and hospitality services. Wallingford, Oxford: CABI.
- Lee, H. A., Guillet, B. D., Law, R., and Leung, R. (2012). Robustness of distance decay for international pleasure travelers: A longitudinal approach. *International Journal of Tourism Research*, *14*(5), 409-420.
- Lee, J., and Allaway, A. (2002). Effects of personal control on adoption of self-service technology innovations. *Journal of Services Marketing*, *16*(6), 553-572.
- Lee, J., and Rho, M. J. (2013). Perception of influencing factors on acceptance of mobile health monitoring service: a comparison between users and non-users. *Healthcare informatics research*, 19(3), 167-176.
- Lee, W., Castellanos, C., and Chris Choi, H.S. (2012). The Effect of Technology Readiness on Customers' Attitudes toward Self-Service Technology and Its Adoption; The Empirical Study of US Airline Self-Service Check-In Kiosks. *Journal of Travel and Tourism Marketing*, 29(8), 731-743.
- Lee, Y., Kozar, K. A., and Larsen, K. R. (2003). The technology acceptance model: Past, present, and future. *Communications of the Association for Information Systems*, 12(1), 50.
- Leedy, P.D., and Ormrod, J.E. (2012). *Practical Research: Planning and Design*. New York City, New York: Pearson Education.
- Legris, P., Ingham, J., and Collerette, P. (2003). Why do people use information technology? A critical review of the technology acceptance model. *Information and Management*, 40(3), 191-204.
- Lei, M., and Lomax, R.G. (2005). The effect of varying degrees of nonnormality in structural equation modeling. *Structural Equation Modeling*, 12(1), 1-27.
- Leonard-Barton, D., and Deschamps, I. (1988). Managerial influence in the implementation of new technology. *Management science*, *34*(10), 1252-1265.
- Lewis, B., and Rush, D. (2013). Experience of developing Twitter-based communities of practice in higher education. *Research in Learning Technology*, 21, 1-13
- Li, G., Law, R., Vu, H. Q., and Rong, J. (2013). Discovering the hotel selection preferences of Hong Kong inbound travelers using the Choquet Integral. *Tourism Management*, *36*, 321-330.
- Li, H. (2010) *E-service continuance intention: An insight into online travel services in China*. Turku, Finland: Uniprint.

- Li, J. P., and Kishore, R. (2006). How robust is the UTAUT instrument? A multigroup invariance analysis in the context of acceptance and use of online community weblog systems. Proceedings of the 2006 ACM SIGMIS CPR conference on computer personnel research (pp. 183-189).
- Liao, C., Palvia, P., and Lin, H.-N. (2006). The roles of habit and web site quality in ecommerce. *International Journal of Information Management*, 26(6), 469-483.
- Lien, C., Wen, M, and Wu, C. (2011). Investigating the relationships among e-service quality, perceived value, satisfaction, and behavioral intentions in Taiwanese online shopping. *Asia Pacific Management Review*, *16*(3), 211-223.
- Liljander, V., and Strandvik, T. (1997). Emotions in service satisfaction. *International Journal of Service Sector Management*, 8(2), 148-169.
- Liljander, V., Gillberg, F., Gummerus, J., and Van Riel, A. (2006). Technology readiness and the evaluation and adoption of self-service technologies. *Journal of Retailing and Consumer Services*, *13*(3), 177-191.
- Lim, C. L., Tang, S. F., and Ravichandran, P. (2017). A Study on the Mediation Effects of Intention to Enroll in MOOCs on its Actual Usage. Proceedings of the 8th International Conference on E-Education, E-Business, E-Management and E-Learning (pp. 30-33).
- Limayem, M., Hirt, S. G., and Cheung, C. M. (2007). How habit limits the predictive power of intention: The case of information systems continuance. *MIS Quarterly*, *31*(4), 705-737.
- Lin, C. H., Shih, H. Y., and Sher, P. J. (2007). Integrating technology readiness into technology acceptance: The TRAM model. *Psychology and Marketing*, 24(7), 641-657.
- Lin, H. H., and Wang, Y. S. (2006). An examination of the determinants of customer loyalty in mobile commerce contexts. *Information and Management*, 43(3), 271-282.
- Lin, J.-S. C., and Hsieh, P.-L. (2006). The role of technology readiness in customers' perception and adoption of self-service technologies. *International Journal of Service Sector Management*, *17*(5), 497-517.
- Lin, S., Zimmer, J. C., and Lee, V. (2013). Podcasting acceptance on campus: The differing perspectives of teachers and students. *Computers and Education*, 68, 416-428.
- Lincoln, Y. S., and Guba, E. G. (2000). *The only generalization is: There is no generalization. Case study method* (pp. 27-44). Bonhill Street, London: Sage.
- Lovelock, C., and Wirtz, J. (2004). *Services Marketing: People. Technology, strategy*. Upper Saddle River, New Jersey: Pearson

- Lubbe, B., and Louw, L. (2010). The perceived value of mobile devices to passengers across the airline travel activity chain. *Journal of Air Transport Management*, *16*(1), 12-15.
- Lundberg, E. (2017). *How to compete effectively with self-service technologies: The impact of technology readiness and the technology acceptance model on self-scanning.* (Master's thesis, Uppsala Universitet). Retrieved from https://uu.diva-portal.org/smash/get/diva2:1111218/FULLTEXT01.pdf
- Lusch, R. F., Vargo, S. L., and O'Brien, M. (2007). Competing through service: Insights from service-dominant logic. *Journal of Retailing*, 83(1), 5-18.
- Ma Sabiote, C., Ma Frias, D., and Castañeda, J. A. (2012). E-service quality as antecedent to e-satisfaction: The moderating effect of culture. *Online Information Review*, *36*(2), 157-174.
- MacKinnon, D.P. (2008). *Introduction to Statistical Mediation Analysis*. New York City, New York: Lawrence Erlbaum Associates, Taylor and Francis Group.
- MacLean, S. and Gray, K. (1998). Structural equation modeling in market research. Journal of the Australian Market Research Society, 6(1), 17-32.
- Malaysian Communications and Multimedia Commissions (2019). Internet users survey 2018. Retrieved from https://www.mcmc.gov.my/skmmgovmy/media/General/pdf/Internet-Users-Survey-2018-(Infographic).pdf
- Malhotra, N., Hall, J., Shaw, M. and Oppenheim, P. (2002). *Marketing research: An applied orientation* (2nd Ed.). New South Wales, Australia: Pearson Education Australia.
- Marcussen, C. H. (2008). *Trends in European internet distribution-of travel and tourism services*. Bornholm, Australia: Centre for Regional and Tourism Research.
- Mardikyan, S., Besiroglu, B., and Uzmaya, G. (2012). *Behavioral intention towards the use of 3G technology*. Proceedings of Communications of the IBIMA (pp. 1-10).
- Marsh, H.W., Hau, K.T., and Wen, Z. (2004). In search of golden rules: Comment on hypothesis-testing approaches to setting cutoff values for fit indexes and dangers in overgeneralizing Hu and Bentler's (1999) findings. *Structural Equation Modeling*, *11*(3), 320-341.
- Martins, C., Oliveira, T., and Popovič, A. (2014). Understanding the Internet banking adoption: A unified theory of acceptance and use of technology and perceived risk application. *International Journal of Information Management*, 34(1), 1-13.
- Masiero, L., Heo, C. Y., and Pan, B. (2015). Determining guests' willingness to pay for hotel room attributes with a discrete choice model. *International Journal of Hospitality Management*, 49, 117-124.

- Mathieson, K. (1991). Predicting user intentions: comparing the technology acceptance model with the theory of planned behavior. *Information Systems Research*, 2(3), 173-191.
- Mayer, K.J. (1999). Exploring the role of service process and its effect on guest encounter satisfaction. (Doctoral Dissertation, University of Nevada Las Vegas). Retrieved from https://digitalscholarship.unlv.edu/cgi/viewcontent.cgi?article=4078&context= rtds
- Mayer, K.J., Bowen, J.T. and Moulton, M.R. (2003). A proposed model of the descriptors of service process. *Journal of Services Marketing*, 17(6), 621-639.
- McCartan, M. (2013). Distribution challenges: perspective from hotels. Hotel Business Review. Retrieved from http://hotelexecutive.com/business_review/3603/distribution-challengesperspective-from-hotels
- McCleary, K. W., Weaver, P. A., and Lan, L. (1994). Gender-based differences in business travelers' lodging preferences. *The Cornell Hotel and Restaurant Administration Quarterly*, 35(2), 51-58.
- McDaniel, C., and Gates, R. (1999). *Contemporary marketing research south*. Cincinnati, Ohio: Western College Publishing.
- McDonald, R.P., and Ho, M.H.R. (2002). Principles and practice in reporting structural equation analyses. *Psychological Methods*, 7(1), 64.
- MDGAdvertising (2018). Travel and Hospitality Advertising: 5 Digital Spend Trends to Watch. Retrieved from https://www.mdgadvertising.com/marketinginsights/travel-and-hospitality-advertising-5-digital-spend-trends-to-watch/
- Melisa, M., and Indrawati, I. (2018). Analysis of customer acceptance of online travel agent technology using utaut2 model (a case study on e-commerce traveloka in indonesia). Proceedings of the 7th Smart Collaboration for Business in Technology and Information Industries 2016 (pp. 115-120).
- Meuter, M. L., Bitner, M. J., Ostrom, A. L., and Brown, S. W. (2005). Choosing among alternative service delivery modes: An investigation of customer trial of selfservice technologies. *Journal of Marketing*, 69(2), 61-83.
- Meuter, M. L., Ostrom, A. L., Bitner, M. J., and Roundtree, R. (2003). The influence of technology anxiety on consumer use and experiences with self-service technologies. *Journal of Business Research*, 56(11), 899-906.
- Meuter, M. L., Ostrom, A. L., Roundtree, R. I., and Bitner, M. J. (2000). Self-service technologies: understanding customer satisfaction with technology-based service encounters. *Journal of Marketing*, 64(3), 50-64.

- Mick, D. G., and Fournier, S. (1998). Paradoxes of technology: Consumer cognizance, emotions, and coping strategies. *Journal of Consumer Research*, 25(2), 123-143.
- Morar, D.D. (2013). An overview of the consumer value literature–perceived value, desired value. *Marketing from Information to Decision* 6, 169-186.
- Morosan, C., and DeFranco, A. (2016). It's about time: Revisiting UTAUT2 to examine consumers' intentions to use NFC mobile payments in hotels. *International Journal of Hospitality Management*, 53, 17-29.
- Morosan, C., and Jeong, M. (2008). Users' perceptions of two types of hotel reservation Web sites. *International Journal of Hospitality Management*, 27(2), 284-292.
- Mukherjee, A., and Hoyer, W. D. (2001). The effect of novel attributes on product evaluation. *Journal of Consumer Research*, 28(3), 462-472.
- Muthaly, S., Ha, H.-Y., Yeo, J. P., and Kim, N.-Y. (2009). Effects on direct-to-consumer advertising of prescription drugs in Singapore: The moderating role of low credibility. *International Area Review*, *12*(2), 215-229.
- Narang, R. (2013). *Measuring Consumer spirituality through a valid scale*. Proceedings of 3rd Biennial Conference of the Indian Academy of Management.
- Neill, J. (2008). Writing up a factor analysis. Retrieved from https://s3.amazonaws.com/academia.edu.documents/30778971/Neill2008_Wri tingUpAFactorAnalysis.pdf?AWSAccessKeyId=AKIAIWOWYYGZ2Y53UL 3AandExpires=1545718043andSignature=HjGx3Cz7%2BNc1b1a6UcmnCqK 4yTk%3Dandresponse-contentdisposition=inline%3B%20filename%3DWriting_up_a_factor_analysis.pdf
- Neuman, L.W. (2006). Social Research Methods: Qualitative and Quantitative Approaches (6th ed.). Boston, Massachusetts: Ally and Bacon.
- Newell, B. R., Lagnado, D. A., and Shanks, D. R. (2007). Challenging the role of implicit processes in probabilistic category learning. *Psychonomic Bulletin and Review*, 14(3), 505-511.
- Nunnally, J.C., and Bernstein, I. (1994). The assessment of reliability. *Psychometric Theory*, 3(1), 248-292.
- Nysveen, H., Pedersen, P. E., and Thorbjørnsen, H. (2005). Intentions to use mobile services: Antecedents and cross-service comparisons. *Journal of the Academy of Marketing Science*, *33*(3), 330-346.
- O'Connor, P., and Murphy, J. (2004). Research on information technology in the hospitality sector. *International Journal of Hospitality Management*, 23(5), 473-484.
- Oliver, R. L. (1980). A Cognitive Model for the Antecedents and Consequences of Satisfaction. *Journal of Marketing Research 17*, 460-469.

- Olsen, M. D., and Connolly, D. J. (2000). Experience-based travel: How technology is changing the hospitality sector. *Cornell Hotel and Restaurant Administration Quarterly*, *41*(1), 30-40.
- Oppenheim, A. N. (1998). *Questionnaire design, interviewing and attitude measurement.* Richmond, London: Cassell.
- Orbell, S., Blair, C., Sherlock, K., and Conner, M. (2001). The theory of planned behavior and ecstasy use: Roles for habit and perceived control over taking versus obtaining substances. *Journal of Applied Social Psychology*, 31(1), 31-47.
- Orlikowski, W. J., and Baroudi, J. J. (1991). Studying information technology in organizations: Research approaches and assumptions. *Information systems research*, 2(1), 1-28.
- Pallant, J. (2005). SPSS Survival Manual: A Step by Step Guide to Data Analysis Using SPSS for Windows. Berkshire, United Kingdom: Open University Press.
- Pan, B., Zhang, L., and Law, R. (2013). The complex matter of online hotel choice. Cornell Hospitality Quarterly, 54(1), 74-83.
- Pan, L.-Y., Chang, S.-C., and Sun, C.-C. (2014). A three-stage model for smart phone use antecedents. *Quality and Quantity*, 48(2), 1107-1115.
- Panday, R. (2018). Analysis of technology readiness and technology acceptance of geodesy student in using ina geoportal. Seminar Nasional & Call For Paper, Forum Manajemen Indonesia (FMI) Ke-7"Dinamika Dan Peran Ilmu Manajemen Untuk Menghadapi AEC"Jakarta, 10-12 November.
- Parasuraman, A. (1997). Reflections on gaining competitive advantage through customer value. *Journal of the Academy of Marketing Science*, 25(2), 154.
- Parasuraman, A. (2000). Technology Readiness Index (TRI) a multiple-item scale to measure readiness to embrace new technologies. *Journal of Service Research*, 2(4), 307-320.
- Parasuraman, A., and Grewal, D. (2000). The Impact of Technology on the Quality-Value- Loyalty Chain: A Research Agenda. *Journal of the Academy of Marketing Science*, 28(1), 168-174.
- Parasuraman, A., and Colby, C. L. (2007). *Techno-ready marketing: How and why your customers adopt technology*. New York City, New York: Simon and Schuster.
- Parasuraman, A., and Colby, C. L. (2015). An updated and streamlined technology readiness index: TRI 2.0. *Journal of Service Research*, 18(1), 59-74.
- Parasuraman, A., Zeithaml, V. A., and Malhotra, A. (2005). ES-QUAL a multiple-item scale for assessing electronic service quality. *Journal of Service Research*, 7(3), 213-233.

- Park, J. W., Robertson, R., and Wu, C. L. (2004). The effect of airline service quality on passengers' behavioral intentions: a Korean case study. *Journal of Air Transport Management*, 10(6), 435-439.
- Pascual-Miguel, F. J., Agudo-Peregrina, Á. F., and Chaparro-Peláez, J. (2015). Influences of gender and product type on online purchasing. *Journal of Business Research*, 68(7), 1550-1556.
- Pavlou, P. A., and Fygenson, M. (2006). Understanding and predicting electronic commerce adoption: An extension of the theory of planned behavior. *MIS Quarterly*, 30(1), 115-143.
- Peterkin, K. Y. (2014). Online Travel Agencies as a Source of Hotel Information: A Content Analysis (Doctoral dissertation, University of Southern Denmark). Retrieved from http://www.cek.ef.uni-lj.si/magister/Peterkin1535-B.pdf
- Pham, Y.K., McWhirter, E.H., and Murray, C. (2014). Measuring help-seeking behaviors: Factor structure, reliability, and validity among youth with disabilities. *Journal of Adolescence*, *37*(3), 237-246.
- Piercy, N. (2012). Positive and negative cross-channel shopping behavior. *Marketing Intelligence and Planning*, *30*(1), 83-104.
- Pilepic, L., Simunic, M., and Car, T. (2015). Online hotel's sales strategies with emphasis on web booking. *Journal of Technology Research*, *6*, 1-12.
- Preacher, K.J., and Hayes, A.F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40(3), 879-891.
- Premkumar, G., and Bhattacherjee, A. (2008). Explaining information technology usage: A test of competing models. *Omega*, *36*(1), 64-75.
- Prud'homme, B., and Raymond, L. (2013). Sustainable development practices in the hospitality sector: An empirical study of their impact on customer satisfaction and intentions. *International Journal of Hospitality Management*, 34, 116-126.
- Pura, M. (2005). Linking perceived value and loyalty in location-based mobile services. *Managing Service Quality: An International Journal*, 15(6), 509-538.
- Qi, S., Law, R., and Buhalis, D. (2013). Who booked five-star hotels in Macau? A study of hotel guests' online booking intention. *Journal of Hospitality and Tourism Management*, 20, 76-83.
- Rahman, M. M., Lesch, M. F., Horrey, W. J., and Strawderman, L. (2017). Assessing the utility of TAM, TPB, and UTAUT for advanced driver assistance systems. *Accident Analysis and Prevention, 108*, 361-373.
- Raman, A., and Don, Y. (2013). Preservice teachers' acceptance of Learning Management Software: An application of the UTAUT2 model. *International Education Studies*, 6(7), 157-164.

- Ranaweera, C., Bansal, H., and McDougall, G. (2008). Web site satisfaction and purchase intentions: Impact of personality characteristics during initial web site visit. *Managing Service Quality: An International Journal*, 18(4), 329-348.
- Rayman-Bacchus, L., and Molina, A. (2001). Internet-based tourism services: business issues and trends. *Futures*, *33*(7), 589-605.
- Reputationx (2014). Online Reputation Management Services. Retrieved from http://reputationx.com/alexa-rank-definition/.
- Rietveld, T., and Van Hout, R. (1993). *Statistical Techniques for the Study of Language* and Language Behaviour. Genthiner Street, Berlin: Walter de Gruyter.
- Roberts, B. W., and DelVecchio, W. F. (2000). The rank-order consistency of personality traits from childhood to old age: a quantitative review of longitudinal studies. *Psychological Bulletin, 126*(1), 3-25.
- Rock, D., and Schwartz, J. (2006). *The neuroscience of leadership. Strategy+ business*. Retrieved from http://westallen.typepad.com/files/the-neuroscience-of-leadership.pdf
- Rogers, E. M. (2003). Diffusion of innovations. New York City, New York: Free Press.
- Ronis, D. L., Yates, J. F., and Kirscht, J. P. (1989). Attitudes, decisions, and habits as determinants of repeated behavior. *Attitude Structure and Function*. Hillsdale, New Jersey: Lawrence Erlbum Associates.
- Roscoe, J.T. (1975). Fundamental Research Statistics for the Behavioral Sciences. New York City, New York: Holt, Rinehart, and Winston.
- Rosso, L. D. (2014). Consumer trends 2014: Explosion in mobile bookings. Travel Weekly. Retrieved from http://www.travelweekly.com/Travel-News/Travel-Technology/Explosion-in-mobile-bookings/
- Roumeliotis, M., and Maria, T. (2014). Perception and adoption of technology-based services by students of higher education. *International Journal of Scientific and Research Publications*, 4(3), 1-5.
- Ruiz-Mafe, C., Sanz-Blas, S., Hernandez-Ortega, B., and Brethouwer, M. (2013). Key drivers of consumer purchase of airline tickets: A cross-cultural analysis. *Journal of Air Transport Management*, 27, 11-14.
- Rust, R. T., and Zahorik, A. J. (1993). Customer satisfaction, customer retention, and market share. *Journal of Retailing*, 69(2), 193-215.
- Ryan, C., and Rao, U. (2008). Holiday users of the Internet—ease of use, functionality and novelty. *International Journal of Tourism Research*, *10*(4), 329-339.
- Ryu, K., Han, H., and Kim, T.-H. (2008). The relationships among overall quick-casual restaurant image, perceived value, customer satisfaction, and behavioral intentions. *International Journal of Hospitality Management*, 27(3), 459-469.

- Sahay, A. (2007). How to reap higher profits with dynamic pricing. *MIT Sloan Management Review*, 48(4), 53-60.
- Salleh, A., and Ahmad, A. (2008). *Human Governance: a paradigm shift in governing corporations*. Selangor, Malaysia: MPH Group Pub.
- Salvador, F., De Holan, P. M., and Piller, F. T. (2009). Cracking the code of mass customization. *MIT Sloan Management Review*, 50(3), 71.
- San Martín, H., and Herrero, Á. (2012). Influence of the user's psychological factors on the online purchase intention in rural tourism: Integrating innovativeness to the UTAUT framework. *Tourism Management*, *33*(2), 341-350.
- Sánchez-Fernández, R., and Iniesta-Bonillo, M.Á. (2007). The concept of perceived value: a systematic review of the research. *Marketing Theory*, 7(4), 427-451.
- Schawbel, D. (2015). 10 New finding about the millennial consumer. Forbes.com. Retrieved from http://www.forbes.com/sites/danschawbel/2015/01/20/10-new-findings-about-the-millennial-consumer/#3bf58f2528a8
- Schegg, R., Stangl, B., Fux, M., and Inversini, A. (2013). Distribution channels and management in the Swiss hotel sector. *Information and Communication Technologies in Tourism 2013* (pp. 554-565). Berlin, Germany: Springer.
- Schermelleh-Engel, Karin, Moosbrugger, H., and Müller, H. (2003). Evaluating the fit of structural equation models: Tests of significance and descriptive goodness-of-fit measures. *Methods of Psychological Research Online*, 8(2), 23-74.
- Scholl-Grissemann, U., and Schnurr, B. (2016). Room with a view: how hedonic and utilitarian choice options of online travel agencies affect consumers' booking intentions. *International Journal of Culture, Tourism and Hospitality Research*, 10(4), 361-376.
- Schreiber, J.B., Nora, A., Stage, F.K., Barlow, E.A., and King, J. (2006). Reporting structural equation modeling and confirmatory factor analysis results: A review. *The Journal of Educational Research*, 99(6), 323-338.
- Schumacher R.E. and Lomax, R.G. (1996). A Beginner's Guide to Structural equation modeling. Mahwah, New Jersey: Lawrence Erlbaum Associates, Inc.
- Schumacker, R.E., and Lomax, R.G. (2004). A Beginner's Guide to Structural Equation Modeling. Mahwah, New Jersey: Lawrence Erlbaum Associates, Inc.
- Seiter, T. C. (2012). A Quantitative Assessment of the Factors that Influence Technology Acceptance in Emergency Response. San Diego: Northcentral University.
- Sekaran, U. (2000). *Research methods for business: A skill-building approach*. Upper Saddle River, New Jersey: John Wiley and Sons.

- Shih, Y. C., and Fan, S. T. (2013). Adoption of instant messaging by travel agency workers in Taiwan: Integrating technology readiness with the theory of planned behavior. *International Journal of Business and Information*, 8(1), 120-136.
- Similarweb (2017). *Website analysis*. Retrieved from https://pro.similarweb.com/#/website/home
- Slade, E. L., Williams, M. D., and Dwivedi, Y. K. (2014). Devising a research model to examine adoption of mobile payments: An extension of UTAUT2. *The Marketing Review*, 14(3), 310-335.
- Sohrabi, B., Vanani, I. R., Tahmasebipur, K., and Fazli, S. (2012). An exploratory analysis of hotel selection factors: A comprehensive survey of Tehran hotels. *International Journal of Hospitality Management*, *31*(1), 96-106.
- Sophonthummapharn, K., and Tesar, G. (2007). Technology readiness and propensity of cell phone users to subscribe to commercial messaging services. *Marketing Management Journal*, 17(2), 81-95.
- Srite, M. and Karahanna, E. (2006). The role of espoused national cultural values in technology acceptance. *MIS Quarterly*, *30*(3), 679-704.
- Statista (2018). *Online travel booking*. Retrieved from https://www.statista.com/outlook/262/122/online-travel-booking/malaysia
- Statisticbrain (2015). *Internet travel hotel booking statistics*. Retrieved from http://www.statisticbrain.com/internet-travel-hotel-booking-statistics/
- Stevens, P., Knutson, B. and Patton, M., (1995). DINESERVE: A tool for measuring service quality in restaurants. *The Cornell Hotel and Restaurant Administration Quarterly*, 36(2), 56-65.
- Stewart, K. J. (2003). Trust transfer on the World Wide Web. Organization Science, 14(1), 5-17.
- Straub, D. W. (1989). Validating instruments in MIS research. *MIS Quarterly*, *13*(2) 147-169.
- Straub, E. T. (2009). Understanding technology adoption: Theory and future directions for informal learning. *Review of educational research*, *79*(2), 625-649.
- Susskind, A. M. (2002). I told you so! Restaurant customers' word-of-mouth communication patterns. *The Cornell Hotel and Restaurant Administration Quarterly*, 43(2), 75-85.
- Sweeney, J.C., and Soutar, G.N. (2001). Consumer perceived value: the development of a multiple item scale. *Journal of Retailing*, 77(2), 203-220.
- Tabachnick, B. G., and Fidell, L. S. (2007). *Using multivariate statistics*. Boston, Massachusetts: Allyn and Bacon/Pearson Education.

- Tabachnick, B.G. and Fidell, L.S. (1996). Using multivariate statistics, (3rd Ed.). Northridge, California: Haarper-Collins.
- Tavakol, M. and Dennick, R. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education*, 2, 53-55.
- Taylor, S., and Todd, P. A. (1995). Understanding information technology usage: A test of competing models. *Information systems research*, 6(2), 144-176.
- Thompson, B. (2004). *Exploratory and confirmatory factor analysis: Understanding concepts and applications*. First Street, Washington: American Psychological Association.
- Thong, J. Y., Hong, S.-J., and Tam, K. Y. (2006). The effects of post-adoption beliefs on the expectation-confirmation model for information technology continuance. *International Journal of Human-Computer Studies*, 64(9), 799-810.
- Ticehurst, G.W., and Veal, A.J., (1999). Business Research Methods: A Managerial Approach. Longman, Australia: Pearson Education Australia/Addison Wesley.
- Ting, P.-H., Wang, S.-T., Bau, D.-Y., and Chiang, M.-L. (2013). Website evaluation of the top 100 hotels using advanced content analysis and eMICA model. *Cornell Hospitality Quarterly*, 54(3), 284-293.
- Toh, R. S., DeKay, C. F., and Raven, P. (2011). Travel planning: searching for and booking hotels on the internet. *Cornell Hospitality Quarterly*, 52(4), 388-398.
- Tourism Malaysia (2019). *Malaysia tourism statistics in brief*. Retrieved from http://mytourismdata.tourism.gov.my/
- Travel Pulse (2018). *Millennial Travel Spending Surpasses \$200 Billion Annually*. Retrieved from http://www.travelpulse.com/news/features/millennial-travelspending-surpasses-200-billion-annually.html
- Travelclick (2012). Flash Sale Sites Lose Popularity with Hoteliers TravelClick survey shows dissatisfaction with group discount model. Retrieved from http://www.travelclick.com/en/news-events/press-release/flash-sale-sites-losepopularity-hoteliers-travelclick-survey-shows-dissatisfaction-group
- TravelClick (2015). Online Channels Continue to Lead Bookings in 2014. Retrieved from http://www.travelclick.com/en/news-events/press-releases/onlinechannels-continue-lead-bookings-2014
- Tsai, H.-T., Huang, L., and Lin, C.-G. (2005). Emerging e-commerce development model for Taiwanese travel agencies. *Tourism Management*, 26(5), 787-796.
- Tsikriktsis, N. (2004). A technology readiness-based taxonomy of customers a replication and extension. *Journal of Service Research*, 7(1), 42-52.

- Tsourela, M., and Roumeliotis, M. (2015). The moderating role of technology readiness, gender, and sex in consumer acceptance and actual use of Technology-based services. *The Journal of High Technology Management Research*, 26(2), 124-136.
- Tucker, L.R., and MacCallum, R.C. (1997). Exploratory factor analysis. (Unpublished manuscript, Ohio State University). Retrieved from http://www.ffzg.unizg.hr/psihologija/phm/nastava/Book_Exploratory%20Fact or%20Analysis.PDF
- Vaittinen, E., & Martinsuo, M. (2019). Industrial customers' organizational readiness for new advanced services. *Journal of Manufacturing Technology Management*.
- Van Teijlingen, E., and Hundley, V. (2002). The importance of pilot studies. *Nursing Standard*, *16*(40), 33-36.
- Vazquez, D., and Xu, X. (2009). Investigating linkages between online purchase behavior variables. *International Journal of Retail and Distribution Management*, 37(5), 408-419.
- Velicer, Wayne F, and Jackson, Douglas N. (1990). Component analysis versus common factor analysis: Some issues in selecting an appropriate procedure. *Multivariate Behavioral Research*, 25(1), 1-28.
- Venkatesh, V. (2000). Determinants of perceived ease of use: Integrating control, intrinsic motivation, and emotion into the technology acceptance model. *Information Systems Research*, 11(4), 342-365.
- Venkatesh, V. P. (2013). An Assessment of Security Vulnerabilities Comprehension of Cloud Computing Environments: A Quantitative Study Using the Unified Theory of Acceptance and Use. (Doctoral Dissertation, Capella University). Retrieved from https://search.proquest.com/openview/b42be8ec5824dbc6d6d23bca5003c1eb/ 1?pq-origsite=gscholar&cbl=18750&diss=y
- Venkatesh, V., and Bala, H. (2008). Technology acceptance model 3 and a research agenda on interventions. *Decision Sciences*, 39(2), 273-315.
- Venkatesh, V., and Davis, F. D. (1996). A model of the antecedents of perceived ease of use: Development and test. *Decision Sciences*, 27(3), 451-481.
- Venkatesh, V., and Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management Science*, 46(2), 186-204.
- Venkatesh, V., Davis, F. D., and Morris, M. G. (2007). Dead or alive? The development, trajectory, and future of technology adoption research. *Journal of the Association for Information Systems*, 8(4), 267.
- Venkatesh, V., Morris, M. G., Davis, G. B., and Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27(3), 425-478.

- Venkatesh, V., Thong, J. Y., and Xu, X. (2012). Consumer acceptance and use of information technology: extending the unified theory of acceptance and use of technology. *MIS Quarterly*, 36(1), 157-178.
- Verhagen, T., and Van Dolen, W. (2009). Online purchase intentions: A multi-channel store image perspective. *Information and Management*, 46(2), 77-82.
- Vermeulen, I. E., and Seegers, D. (2009). Tried and tested: The impact of online hotel reviews on consumer consideration. *Tourism Management*, 30(1), 123-127.
- Verplanken, B., Aarts, H., Knippenberg, A., and Moonen, A. (1998). Habit versus planned behavior: A field experiment. *British Journal of Social Psychology*, 37(1), 111-128.
- Victorino, L., Karniouchina, E., and Verma, R. (2009). Exploring the use of the abbreviated technology readiness index for hotel customer segmentation. *Cornell Hospitality Quarterly*, 50(3), 342-359.
- Walczuch, R., Lemmink, J., and Streukens, S. (2007). The effect of service employees' technology readiness on technology acceptance. *Information and Management*, 44(2), 206-215.
- Wang, H.Y., and Wu, S.Y. (2014). Factors influencing behavioural intention to patronise restaurants using iPad as a menu card. *Behaviour and Information Technology*, 33(4), 395-409.
- Wang, Y.-F. (2013). Constructing career competency model of hospitality sector employees for career success. *International Journal of Contemporary Hospitality Management*, 25(7), 994-1016.
- Webopedia (2016). Unique visitor. Retrieved from http://www.webopedia.com/TERM/U/unique_visitor.html
- Werthner, H., and Ricci, F. (2004). E-commerce and tourism. *Communications of the* ACM, 47(12), 101-105.
- Wirtz, J., Brah, S., Baron, S., Patterson, A., and Harris, K. (2006). Beyond technology acceptance: understanding consumer practice. *International Journal of Service Sector Management*, 17(2), 111-135.
- Wu, J. S., & Law, R. (2018). Analysing behavioural differences between e-and mbookers in hotel booking. *International Journal of Hospitality Management*, 1-9.
- Wu, E. H., Law, R., and Jiang, B. (2013). Predicting browsers and purchasers of hotel websites: a weight-of-evidence grouping approach. *Cornell Hospitality Quarterly*, 54(1), 38-48.
- Xiang, Z., Wöber, K., and Fesenmaier, D. R. (2008). Representation of the online tourism domain in search engines. *Journal of Travel Research*, 47(2), 137-150.

- Yang, A. S. (2009). Exploring adoption difficulties in mobile banking services. Canadian Journal of Administrative Sciences, 26(2), 136.
- Yang, H.-d., and Yoo, Y. (2004). It's all about attitude: revisiting the technology acceptance model. *Decision Support Systems*, 38(1), 19-31.
- Yang, S. (2013). Understanding undergraduate students' adoption of mobile learning model: a perspective of the extended UTAUT2. *Journal of Convergence Information Technology*, 8(10), 969-979.
- Yavas, U., and Babakus, E. (2005). Dimensions of hotel choice criteria: congruence between business and leisure travelers. *International Journal of Hospitality Management*, 24(3), 359-367.
- Yee, T. B., Ramlan, R., Hassan, R., Shukri, S. R. M., & Mokhtar, R. (2018). The Evaluation of Third Party Hotel Booking Website Performance Using Analytic Hierarchy Process (AHP). Journal of Advance Research in Dynamical & Control Systems, 10(7), 426-431.
- Yee-Loong, C. (2013) Understanding mobile commerce continuance intentions: an empirical analysis of Chinese consumers. *Journal of Computer Information Systems*, 53(4), 22-30.
- Yieh, K., Chen, J., and Wei, M.B. (2012). The effects of technology readiness on customer perceived value: An empirical analysis. *Journal of Family and Economic Issues*, 33(2), 177-183
- Yount, W.R. (2006). Research Design and Statistical Analysis in Christian Ministry. 4th Ed. Retrieved from http://www.napce.org/documents/research-designyount/00_Front_4th.pdf
- Yousafzai, S. Y., Foxall, G. R., and Pallister, J. G. (2007). Technology acceptance: a meta-analysis of the TAM: Part 1. *Journal of Modelling in Management*, 2(3), 251-280.
- Yu, C.-S. (2012). Factors affecting individuals to adopt mobile banking: Empirical evidence from the UTAUT model. *Journal of Electronic Commerce Research*, *13*(2), 104.
- Yuen, Y., Yeow, P. H., Lim, N., and Saylani, N. (2010). Internet banking adoption: comparing developed and developing countries. *Journal of Computer Information Systems*, 51(1), 52-61.
- Zeithaml, V. A., Berry, L. L., and Parasuraman, A. (1996). The behavioral consequences of service quality. *Journal of Marketing*, 31-46.
- Zhao, X., Lynch Jr, J. G., and Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and truths about mediation analysis. *Journal of Consumer Research*, *37*(2), 197-206.

- Zhou, T., Lu, Y., and Wang, B. (2010). Integrating TTF and UTAUT to explain mobile banking user adoption. *Computers in Human Behavior*, 26(4), 760-767.
- Zhu, Z., Nakata, C., Sivakumar, K., and Grewal, D. (2007). Self-service technology effectiveness: the role of design features and individual traits. *Journal of the Academy of Marketing Science*, *35*(4), 492-506.
- Zikmund, V. (2003). Health, well-being, and the quality of life: Some psychosomatic reflections. *Neuroendocrinology Letters*, 6(24), 401-403.

