The University of Hull

Consumer Adoption of New Technologies: The Role of Perceived Risk

Being a Thesis Submitted for the Degree of Doctor of Philosophy at the University of Hull

By

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“*I desire nothing but to set things right as far as I can. My succour is only with Allah. In Him I have put my trust, and to Him I do always turn.” (Hud: verse 88)*

Dedication

To my mother Norah Almoosa & father Mohammed Alomran

who have waited so long for this. Your endless love, encouragement and prayers have made it possible for me to reach this point.

To my lovely, happy, shining, creative kids, Norah & Mohammed. You have kept my spirit alive throughout this long journey.

Thank You.

Acknowledgement

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I would also like to acknowledge my parents, for their unwavering support, motivation and words of encouragement throughout this process. Without the support of my family, I would not have found the strength to journey as far as I have in my life. I hope that my success will also be your success, and that you can feel proud of the work I have put into this research.

I would also like to take this opportunity to thank my friends and colleagues at the university, who have offered love, support, friendship and guidance, year after year, during my academic journey. For you, I hope that you find success in all your endeavours.

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Contents

Tables

Figure

Abbreviation

A

AMOS	Analysis of Moment Structures
AVE	Average Variance Extracted

B

BI	Behavioural Intention
B2C	Business to Customer

C

C-TAM-TPB	Combining the Technology Acceptance Model and the Theory of Planned Behaviour
CFA	Confirmatory Factor Analysis
CB-SEM	Covariance-Based Structural Equation Modelling
CMV	Common Method Variance
CRM	Customer Relationship Management

E

EBPP	Electronic Bill Payment and Presentment
e-Mail	Electronic Mail
EE	Effort Expectancy
EFA	Exploratory Factor Analysis
e-Commerce	Electronic Commerce
EDI	Electronic Data Interchange
e-Government	Electronic Government
EBPP	Electronic Bill Payment and Presentment
EM	Expectation Maximization
e-Survey	Electronic Survey
e-Learning	Electronic Learning
EFA	Exploratory Factor Analysis
EQS	EQS Multivariate Software

F

FC	Facilitating Condition
FR	Financial Risk

G

GCC	Gulf Cooperation Council

CKM	Customer Knowledge Management

D

DSS	Decision Support System

H

H	Hypothesis
HA	Habit
HM	Hedonic Motivation
HTML	Hypertext Markup Language

I

ICT	Information Communication Technology
IDT	Innovation Diffusion Theory
IS	Information System
IT	Information Technology

O

OR	Overall Risk

K

KMO	Kaiser-Meyer Olkin
KSA	Kingdom of Saudi Arabia

P

PE	Performance Expectancy
PEOU	Perceived Ease of Use
PER	Performance Risk
PCUM	PC Utilization Model
PR	Perceived Risk
PU	Perceived Usefulness
PV	Price Value
PLS-SEM	Partial Least Squares- Structural Equation Modelling
PRY	Privacy Risk
PWS	Personal Work Station
PYS	Psychological Risk

L

LISREL	Linear Structural Relations

R

RFID	Radio Frequency Identification
RMV	Replacing Missing Value

M

M-Commerce	Mobile- Commerce
MCAR	Missing Completely or at Random
MPCU	Model of PC Utilization
MGA	Multi Group Analysis
MM	Motivational Model
MLE	Maximum Likelihood Estimation
MVA	Missing Value Analysis Multi-Variance Analysis

S

SAMA	Saudi Arabian Monetary Authority
SR	Service Risk
SCR	Security Risk
SEU	Subjective Expected Utility
SI	Social Influence
SCT	Social Cognitive Theory
SOR	Social Risk
SPSS	Statistical Package for the Social
SCT	Sciences Social Cognitive Theory
SEM	Structural Equation Modelling
SI	Social Influence
SN	Subjective Norm

T

TAM	Technology Acceptance Model
TM	Time Risk
TR	Trust
TRA	Theory of Reasoned Action

U

UK	The United Kingdom
USA	The United States of America
UTAUT	The Unified Theory of Acceptance and Use of Technology
UTAUT2	the Unified Theory of Acceptance and Use of Technology II

Abstract

Driven by perceived Internet technology advantage and significant market potential, this study focuses on the impacts of Perceived Risk and Trust Belief on Behavioural Intention to use hotel e-booking services in Saudi Arabia. The study employs the UTAUT2 (Unified Theory of Acceptance and Use of Technology II). The objective is to establish and assess a new model that can be used to determine the various elements, which impact usage behaviour among customers of hotel e-booking services. This study places special emphasis on the unique role of trust belief, and the perception of risk.

The data were collected from a cross-sectional survey of 465 respondents. Partial Least Squares-Structured Equation Modelling (PLS-SEM) was employed in analysing the data. Our study adds to the current literature by proposing new variables linking 'Perceived Risk' and 'Trust Belief' to the UTAUT2. Furthermore, this study provides a response to appeals for further examination and use of aspects, which enlarge the tools, and usage of UTAUT2.

The research model represents a pioneering study integrating perceived risk from consumer adoption of new technology literature, employing the UTAUT2 model to assist in initiating the integration of multi-disciplinary research in electronic marketing. In this research, Trust Belief (TR) was hypothesized, for first time, as a mediator that mediates the influence of Perceived Risk (PR) toward Behavioural Intention (BI). It was found that trust belief

completely mediates the negative relationship between perceived risk and behavioural intention.

Within the context of electronic booking in the hospitality industry in Saudi Arabia, this research provides the first attempt in which the UTAUT2 model is employed to identify the various factors that impact a consumer's choice to embrace and utilise hotel e-booking services. All constructs within the UTAUT2 model exhibited a significant and sufficient extent of discriminant and convergent validity and reliability, except for the construct of facilitating conditions. The results provide backing for utilising the UTAUT2 model for predicting consumers' intention to adopt and utilise e-booking hotel services within the context of Saudi Arabia. Therefore, this study offers valuable contributions to the existing body of literature, by investigating the validity and reliability of the UTAUT model, originally developed for the Western world, to clarify parallel behaviours in a non-Western context.

Chapter One Introduction

The development of electronic marketing offers numerous benefits to both retailers and consumers. For instance, it provides a great deal of convenience, particularly along the lines of ease of use, reduced time to shop, elimination of barriers associated with places to shop, availability of information, online transactions and easier searching. It would be prudent to view e-marketing as an emerging philosophy as well as a contemporary business practice, involved in the marketing of goods and services, ideas and information online and electronically. An analysis of existing research highlights that the concept of e-marketing is defined differently by various researchers, depending on their points of view, specialization and background. For instance, one of the definitions of e-marketing according to Strauss and Root is "the use of electronic data and applications for planning and executing the conception, distribution, and pricing of goods, services, and ideas, in order to create exchanges which satisfy individual and organizational goals" (Strauss & Root, 2001: 454, reviewed by El-Gohary, 2012).

Electronic marketing (e-marketing) is still a comparatively new concept, especially for firms which operate in developing countries with limited resources, and which suffer from fierce competition, bad infrastructure, and which cannot afford to make wrong or unwise investment decisions. Ergo, there is need to have a better understanding of e-marketing

challenges, and the various opportunities which exist for these organizations in harnessing these technologies to improve a firm's marketing activities, and through which processes become more effective and efficient, instead of relying on traditional marketing approaches. There is a considerable amount of literature, which corroborates the significance of e-booking to consumers. For example, Hoffman et al. (1995), Alba et al. (1997) and Peterson et al. (1997) extensively investigated the factors which have contributed to the increased inclination towards e-booking among consumers.

According to El-Gohary (2012), the Internet offers consumers the ability to browse for goods and services, to compare prices across various vendors, and the ease and convenience of making a purchase and paying for the same with just a few clicks. Its convenience plays an integral role in promoting e-booking adoption. Consequently, the Internet, as an alternative shopping channel for travel and finance sectors, is becoming one of the fastest growing channels, relative to other channels, such as TV shopping or telephone shopping (El-Gohary, 2012).

Recent years have witnessed the proliferation of the Internet and global mass adoption. It has garnered notable attention from retailers, who have seen its potential to become a key marketplace, characterised by efficient and economic marketing activities. According to Peterson et al. (1997), the Internet offers a powerful mix of the three core marketing media - communication, transaction and delivery, on which provide the platform for market functions are anchored. The Internet is a powerful medium of communication, extending across the globe, and offering vast and unlimited amounts of information on goods, services and retailers. As a medium for transactions, the Internet facilitates efficiency and convenience in ordering, invoicing and generating other related business documents, which are then

transmitted electronically at incredible speeds and low costs. Hoffman et al. (1995) offer examples of credit cards and debit cards to highlight the Internet's role as a transaction medium. In terms of delivery, the Internet allows for distribution and delivery of goods and services anywhere across the globe, nullifying the influence of geographical barriers.

1.1 Research Problem

The preceding literature on how and why specific groups of consumers book over the Internet, while others only use e-booking services with reluctance, is thin (Faraj, 2013). This lack of information results in one key question: are some consumers only using the Internet to seek product information? According to Jarvenpaa and Todd (1997), this indicates that current literature is not exhaustive, and that the available empirical evidence on the various effects of the Internet on consumer booking behaviour is inconclusive. This inconsistency has caused mixed opinions on the future of Internet booking and retailing. Holloway and Beatty (2003) believe that e-shopping is simply an over-glorified, fleeting craze. Others, such as Rowley (1996) and Hoffman et al. (1995), maintain that the Internet nevertheless promises valuable opportunities and impacts for retailing, because it supports existing market activities.

However, even with the differing opinions regarding the future of e-booking and retailing, there is a consensus that for the e-booking medium to be lucrative, a large volume of consumers will need to purchase goods and services over the Internet (Shang et al., 2005). Focusing on the travel industry, hotel retailers who have adopted Internet technology as a distribution channel require full comprehension of the actual consumers of hotel online

services, the types of hotel services purchased and when these purchases occur. It is only then that they will be able to fully exploit the market potential of the Internet as a medium. This kind of information is essential to hotel e-booking services because the process of consumer decision-making associated with buying hotel services is complex, comprising a series of stages, structured around a hierarchy of activities. Furthermore, the choice of e-booking with regards to hotel services will also tend to vary significantly, due to the differing intrinsic characteristics of consumers. When such information is availed of, an online retailer can then create a suitable strategy to attract new consumers, while at the same time maintaining existing customers.

1.2 Research Gap

With regard to the importance of this research, it is crucial to understand that Information Technology is dramatically changing, which clearly has an impact on the hospitality industry (Blaise et al., 2018; Ho & Lee, 2007). The rapid change in technologies has its own impact on consumer perception; therefore, evaluation of consumer perception towards the development of new technology needs to be continually examined, as this is also changing (Agag & El-Masry, 2017; Mohseni et al., 2016). From the demand perspective, Law et al. (2010) state that the Internet has radically impacted travellers' behaviour, as consumers can engage directly with suppliers and service providers at tourist destinations. Furthermore, individuals increasingly use the Internet not only to receive complete information about products and services, but also to purchase them online, although this behaviour is less extensive (Law et al., 2010).

The increase of new information technologies in the tourism sector has encouraged international scholars to work extensively on information technology research. However, more effort is required to obtain precise knowledge on the intended use of technology in the hospitality industry. The present research investigates the concepts of Trust Belief (TR) and Perceived Risk (PR), and how these concepts influence a consumer's intention to utilise hotel e-booking services. Although there is a sizeable amount of literature focusing on the relationships between risk and trust, the majority of risk literature and empirical evidence has been diverted to industrial relationships, with very sparse theoretical and empirical data on business to customer e-commerce (San Martín et al., 2012). This can be achieved by exploring the characteristics of e-bookers and the various antecedents of e-booking adoption in the context of hotel services. This research recognises the fears and forces, which either persuade or discourage Internet users in Saudi Arabia towards/from embracing e-booking of hotel services. A better understanding of the various incentives which motivate consumers into shopping online is imperative in creating effective online marketing tactics and technologies to ensure long-term success.

1.3 Aim

The study aims to investigate the role of perceived risk and trust belief in technology adoption, and to explore the cause of low technology adoption among e-bookers of hotel services in the Kingdom of Saudi Arabia.

A theory-based model is used, the predominant goal of which is to establish a tested model of consumer behaviour when it comes to the adoption of hotel services e-booking. This will be

achieved via an integrated approach of Trust Belief (TR) and Perceived Risk (PR) factors, which constitute the UTAUT2 model. This research will suggest a conceptual model which allows for a greater understanding of e-bookers' behaviours, and which will be used to predict the intentions of e-bookers to continue engaging in e-booking in the future. This study also aims to build up a profile of contemporary e-bookers, by identifying their geodemographic, demographic characteristic and patterns of usage, which encourage hotel e-booking services purchases. This improved understanding will assist e-bookers as well as web designers to create a more effective and conducive business environment, which will increase the e-booking usage of present consumers and stimulate the adoption of e-booking by non-bookers. This will essentially enhance the ability of related businesses to retain existing customers and attract new customers, which will generate more profit and ensure business success.

The study aims to fill the knowledge gap by introducing significant findings on Internet bookers' behaviour, their experiences, patterns, motivations, expectations and the satisfaction they derive from e-booking. Consequently, these findings will provide hotel businesses with a sound framework for improving their marketing strategies, to maximize returns.

1.4 Research Question

Do Perceived Risk (PR) and Trust Belief (TR) affect adoption of e-booking for hotel services? In what ways do perceived risk and trust belief influence e-bookers' choices in relation to e-booking?

1.5 Objectives

To facilitate the aforesaid research question, the following research objectives are advanced:

1. To identify the various inherent characteristics of consumers which are likely to influence adoption of new technology.

2. To explore the primary role of perceived risk and trust belief in the adoption of new technology by examining relationships.

3. To examine to what extent individual differences, such as age, gender and Internet experience influence the linkages between different variables of technology adoption, particularly perceived risk and trust belief.

1.6 Contribution of Study

The contribution of this study, based on Corley and Gioia's (2011) dimensions, is scientifically useful and lies between revelatory and incremental originality, tending more toward the second box. To explain the contribution clearly, it is necessary to define these terms and how they relate to the current contribution. Therefore, this section is divided into two main parts: The first part contains definitions of Originality and Utility, along with their components. The second part contains an explanation of the contribution made by this study.

In defining contribution to theory, a theory is taken as “a statement of concepts and their interrelationships that shows how and/or why a phenomenon occurs” (Gioia & Pitre, 1990 cited in Corley & Gioia, 2011: 12).

Contributions to theory are judged in terms of their originality and utility. The originality of a work is its "ability to improve our understanding of management and organizations, whether by offering a critical redirection of existing views or by offering an entirely new point of view on phenomena" (Conlon, 2002: 489). Conlon distinguishes between extending current understanding and offering "entirely new points of view". Both types of contribution develop theory by challenging and extending existing knowledge (Whetten, 1989).

The distinction between levels of originality is captured by Corley and Gioia (2011), distinguishing between incremental and revelatory insights. "The advancing incremental understanding perspective has become rather too closely associated with the notion of minor, marginal, or even trivial improvements, but even small advances in our thinking about a phenomenon provide the means to progress through normal science" (Kuhn, 1962, cited in Corley & Gioia, 2011:16). Incremental development is arguably a necessary aspect of organizational research, especially in relation to the contextualization of theory (Rousseau & Fried, 2001). A revelatory contribution is one that is interesting, surprising and reveals a new way of thinking. The key distinction here from the incremental advance perspective is that "a theorist is considered great, not because his/her theories are [necessarily] true, but because they are interesting" (Davis, 1971: 309, cited in Corley & Gioia, 2011: 17).

The two perspectives on the usefulness of theory arise directly from the trajectory of the field's history researchers, who have traditionally been pushed to produce insights for both the professional and academic realms. In other words, to conduct "research that contributes knowledge of a scientific discipline on the one hand, and to apply that knowledge to the practice of management on the other" (Gordon & Howell reports, cited in Corley & Gioia, 2011: 18).

Scientific utility "is perceived as an advance that improves conceptual rigor or the specificity of an idea and/or enhances its potential to be operationalized and tested" (Corley & Gioia, 2011). In a very practical sense, "good theory helps identify what factors should be studied and how and why they are related. A high-quality theory also states the conditions and boundaries of relationships" (Hitt & Smith, 2005: 2; Corley & Gioia, 2011: 18).

The current study does not claim practical utility because "the findings are not directly applicable to the problems facing practising managers and other organizational practitioners", or as Hambrick (2005) suggests, through "the observation of real-life phenomena, not from scholars struggling to find holes in the literature" (cited by Corley & Gioia, 2011:18). Therefore, this study positions itself on the scientific utility side. However, the argument now is about the originality of the contribution: why is it positioned slightly above incremental insight, towards revelatory insight?

According to Corley and Gioia (2011), revelatory insight must be surprising, interesting and reveal new ways of thinking. It is difficult to explain how much additional understanding must be provided to meet the criteria of revelatory originality (Corley & Gioia, 2011). However, the current study could be seen as revelatory in terms of revealing a new way of thinking, which is an extension to the criterion of incremental insight. The following paragraphs explain more about the contribution.

To the best of my current knowledge, Trust Belief (TR) was hypothesized for first time in this study, as a mediator that mediates the influence of Perceived Risk (PR) towards Behavioural Intention (BI). According to Hair et al. (2016), if the direct influence between A & C (in this case perceived risk and behavioural intention) is not significant, but the indirect

relationship (B) is significant, and the relationship between A and B is significant, this means that the mediator completely (not partially) mediates the relationship between these two constructs. It was observed that trust belief completely mediates the negative relationship between perceived risk and behavioural intention.

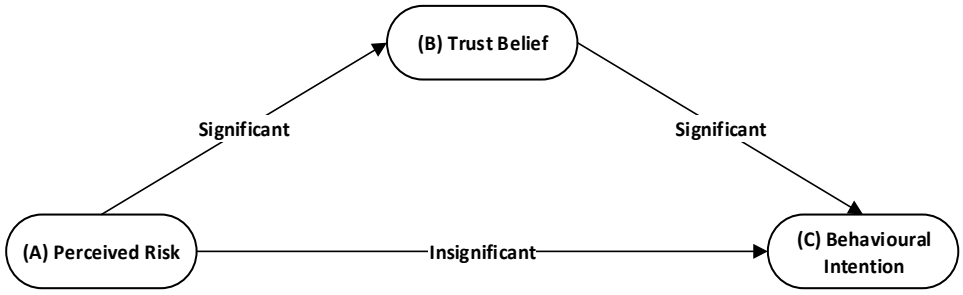

Figure 1-1 Indirect-only Mediation

There was no directly significant relationship between perceived risk and behavioural intention. However, there was a significantly indirect relationship between them, and a direct relation between perceived risk and trust belief (see Figure 1-2). The theoretical inference is that perceived risk and trust belief can be viewed as two opposing forces which shape the willingness of consumers to embrace e-booking. Studies such as those of Pavlou (2003), Malhotra et al. (2004) and Yousafzai et al. (2003) have suggested that trust belief has an impact on perceived risk which is opposite to the hypothesis of the current study. This study, however, presents a different view and better opportunity to understand how consumers develop distrust and fear of e-booking of hotel services, particularly in a non-Western country.

Within the context of electronic booking in the hospitality industry in Saudi Arabia, this research provides the first undertaking in which UTAUT2 and Theory of Risk models are employed to identify the various factors that affect a consumer's choice to embrace and utilise hotel e-booking services. All constructs within the UTAUT2 model exhibited a significant and sufficient extent of discriminant and convergent validity and reliability, except for the construct of facilitating conditions. These results provide backing for utilising the UTAUT2 model for predicting consumers' intention to adopt and utilise e-booking hotel services within the context of Saudi Arabia. Therefore, this study offers valuable contributions to the existing body of literature, by investigating the validity and reliability of the UTAUT model, which was developed for the Western world, to clarify parallel behaviours in a non-Western context.

In the current context of this study, Performance Expectancy (PE), Effort Expectancy (EE), and perceived risk were found to significantly influence trust belief among Saudis. Social Influence (SI) was also observed to have a substantial influence on trust belief among females. Moreover, it was observed that when citizens perceived the usefulness of hotel e-booking services, their level of trust in e-booking services increased. In fact, performance expectancy was noted as the main driver to increase trust, which in turn supports the intention to use technology. However, when consumers perceived e-hotel services as risky, they were less likely to use the e-booking system, even if the system was beneficial. Additionally, the more user-friendly the system, in terms of ease and simplicity of use, the higher the amount of trust in the system in question. Trust was also affected by the perceived system risk, such that the lower the perceived system risk, the higher the amount of trust the consumer would have in the system. In terms of social influence, it was observed that consumers influenced

each other, and this had a notable effect on the degree of trust they had in a system. A higher amount of trust among consumers would therefore increase their intention to use the system. However, upon application of a gender moderator, this research observed that family or friends did not influence the level of trust among males. Instead, this influence was only seen to be strong among female consumers, who were likely be influenced by their family or friends.

Effort expectancy affects positively the level of trust in e-booking. It was found that perceived risk was negatively associated with performance expectancy. Thus, if a consumer perceived e-services as risky, then they would view the system as being of no use. However, when consumers perceived online services as simple and easy to use, their level of trust in the system would increase. This research also found that social influence significantly increased the degree of trust belief, especially among female consumers. This means that female consumers would be more likely to be influenced towards the adoption of e-booking by other consumers, who would increase their trust in hotel e-booking services.

Privacy, financial aspects and time facets were strong predictors of the degree of perceived risk in e-booking. Lastly, social risk, effort expectancy and services risk were determined as having a non-significant relationship with perceived risk.

Eleven out of the fifteen hypotheses in the current study were supported These hypotheses also featured statistically significant *t* standard values, as well as coefficient score. (see section 5.6).

1.7 Structure of Thesis

The structure of this thesis is consistent with the research process and comprises of seven chapters.

Chapter Two: The second chapter consists of a review of relevant literature on the main technology acceptance models. The aim of this chapter is to highlight the significance and present knowledge on technology models, which explain the individual behavioural components, associated with information technology usage and adoption. The second part of this chapter will identify the current literature associated with perceived risk and trust belief, in relation to gaps in the knowledge on technology adoption.

Chapter Three: This chapter proposes a conceptual model and introduces the research hypotheses. The objective of the chapter is to isolate the major variables, which impact e-booking use, with a focus on hotel e-booking services. This will be achieved through relevant literature reviews and responses from interviews conducted among managers of these agencies, to validate the suitability of these constructs. The chapter then proceeds to highlight the relationships between the constructs identified, followed by hypothesis formulation.

Chapter Four: This chapter elaborates on the research methods and procedures adopted to achieve the aims of the study. It includes a description of the adopted research philosophy, data collection methods, research samples used, ethical concerns and issues of validity and reliability. This chapter also contains information on the context and background of Saudi Arabia. It begins by providing a summary of the country and the growth rate of IT within it. Furthermore, the chapter expounds on the numerous Internet technology systems and businesses.

Chapter Five: This chapter comprises the outcome of primary data collection, including evaluation of structural and measurement models, and data screening procedures.

Chapter Six: This chapter comprises the discussion section. It incorporates the general results of data analysis, and specific results associated with the study hypotheses. Both are then considered subject to the literature review generated in the second chapter.

Chapter Seven: This chapter presents the Conclusion, summarising the results of the study. It also proposes several recommendations generated from the study, and summarises the methodological, theoretical, practical applications and value of the study. Furthermore, this chapter identifies and summarises the various study limitations, and offers suggestions for further research.

Chapter Two Literature Review

2.1 Introduction

The previous chapter briefly highlighted the research gap and problem. This chapter critiques the aspect of Perceived Risk (PR), and the element of Trust and Belief (TR) elaborated in consumer behaviour literature dating back to the 1960s. Furthermore, it presents a critical evaluation of the three major models of technology adoption. The chapter revolves around why the three models mentioned above are so prominent in consumer behaviour research. Secondly, it explores how consumer behaviour literature has defined the various aspects of Perceived Risk. This chapter also explores the features of these concepts, followed by an evaluation of how the concepts are measured. In addition, it focuses on how we can define trust, and how it relates to Perceived Risk. The primary objective of this chapter is to provide a thorough understanding of the concept, and to establish an articulate research model, which can be used to evaluate the risks associated with online hotel booking.

2.2 Background

The Internet is characterized by numerous buyers and sellers across a wide geographical dispersion, dealing with unique or specialized products and services (Peterson et al., 1997). Butler and Peppard (1998) note that the Internet also offers retailers a platform for

establishing strong, one-on-one relationships with customers. Because of this, it has become a crucial channel for businesses to provide product information, and as a means of offering direct sales to consumers (Shang et al., 2005). Most businesses today, regardless of size, have invested in e-business, and seek to create a strong Internet presence.

2.2.1 Consumer Decision Making

Traditional shopping varies from using Information Technology systems such as hotel e-booking services. It involves using more resources to engage (e.g. Internet connection, banking account and computer devices). It involves sensitive personal information with every purchase the consumer made such as name, address and credit card information. This could lead to a possible fraud and information hacking. Purchasing though websites does not involve of human interact, which is in some cultural such as Saudi Arabia culture consider to be important to have face- to- face (Hall, 1976). Thus, the process of customer's decision making regarding the adoption new technology are more complex than in traditional shopping (Parasuraman, 2000). This raises the need to continually understand the consumer behaviour toward the adoption of new technologies.

Furthermore, some consumers have specific attitude related to the usage of Internet technology with high risk perception of information exposed and feeling anxious with using online services (Parasuraman, 2000). McKechnie et al. (2006) explain that individual sometime believe in the usefulness of Internet technology such as hotel e-booing technology, but they could defer from using it if they feel unconformable.

Consumers are forced to constantly make decisions involving conflicting choices, purchases, and the use of products and services. These decisions hold great weight, not solely from the consumer's perspective, but also for policy makers and marketers, and can be difficult to make. Consumers are often faced with myriad alternatives, which constantly change as a result of competing pressures and emerging technologies. There is also a wide body of information currently available, which can be retrieved from numerous sources, such as salespeople, brochures, packages, friends and others. Additionally, the consumer is rarely certain about how a given product will perform upon purchase. Lastly, the consumer may be faced with difficult value trade-off options, for instance between safety and price when purchasing a car.

The many-sided nature of the consumer decision-making process has bred a series of crucial research questions. These include questions such as how consumers come up with strategies for making decisions, how varying degrees of prior knowledge may impact a consumer's choice processes, how consumers are able to categorise the array of products, and how they adapt to differing decision settings. These questions have all featured in major areas of research.

2.2.2 Electronic commerce

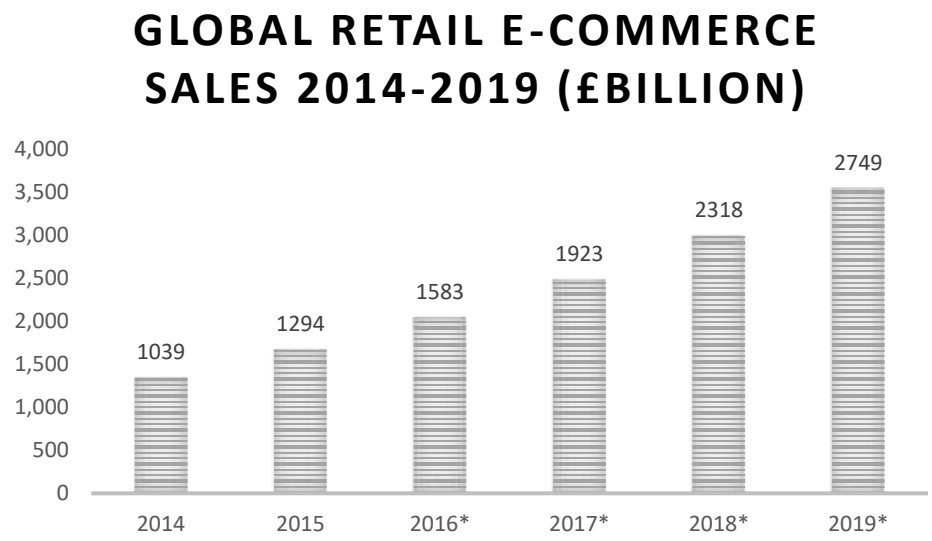

Figure 2-1 Global Retail Sales (Source: e-Marketer, 2016)

E-commerce is the action through which customers get information and buy products using Internet technology (Vladimir, 1996). Put differently, it is the exchange and transactional relationship between a firm website and an end user. Electronic commerce is quite a new concept, which first emerged in business related research in the 1970s. During this period, electronic commerce was lauded as an emerging concept, whereby the Internet would become an essential medium for conducting business before the year 2000.

Today, online shopping is a multi-trillion US dollar business (see Figure 2-1), targeting consumers with both tangible and intangible products (Stofega & Llamas, 2009). Modern communication and information technology facilitates change in business processes and organization structures. It also affects the degree of competitiveness for modern businesses. Within this environment, markets have gained growing significance as a coordination form.

However, events in the market and market structures are also going through a state of change, largely because of modern telecommunication media.

2.2.3 Service Consumption

Considering that online services are provided in a space whereby neither of the parties has transacted with each other previously. It also occurs in an environment where the transacting party lacks sufficient information regarding the service provider, as well as how the good or service is offered. Therefore, the consumer is forced to accept the 'risk of prior performance'. This means paying for services before you receive or rate them and can leave the customer in a very vulnerable state, because he or she has no chance to inspect or try the products before buying them. In contrast, the service provider knows precisely what they will get, if they are paid using money. This information asymmetry presents a series of inefficiencies, which can be mitigated through perceived risk and trust. The underlying rationale is that even if the consumer is not able to try out or sample the service or good he sought to purchase, he may have confidence that the service will meet his expectations, provided he has trust in the vendor. Therefore, the seller holds a place of considerable advantage if the consumer is not able to verify the quality of the product in advance.

The above example reveals that perceived risk and trust play a central function in 'computer mediated' processes and transactions (Riper et al., 2016). This notwithstanding, it is difficult to evaluate the degree of trustworthiness of establishments which may be considered remote, since computerized communication media is increasingly pushing humanity away from the more familiar models of interaction. Traditional forms of communication and physical encounters make it possible for people to have access to a greater variety of cues associated

with trustworthiness, compared with the allowances presented by computer-mediated communication. The level of investment and time, which is needed to establish a traditional bricks and mortar store, offers a degree of assurance that those who engage in such businesses are serious players. This differs significantly from the relative ease associated with establishing an appealing web presence, whereby the level of trustworthiness or credibility of the firm behind a website may be difficult to determine. The challenges of accumulating sufficient evidence on these entities, undermine the ability to set apart low-quality service providers from high-quality services. Consequently, the aspects of perceived risk and trust within the context of open computer networks are becoming central and major issues of concern, both in the Internet industry and the academic community.

There is a fast-growing body of literature on the adoption and use of technology, and associated trust and risk theories. One of the primary goals of this study is to present a survey of the various developments, which have taken place in this field of study. There is a certain degree of confusion, which surrounds the terminologies used in describing these systems. This study will seek to describe the developments and offer proposals for the use of a consistent terminology.

2.2.4 Electronic Booking

E-booking has played a pivotal role in facilitating ease and efficiency for both consumers and businesses (Venkatesh et al., 2012). E-booking in this study is defined as encompassing the activities involved before making a booking over the Internet, including, but not limited to information searches, and the actual online booking process. One of the numerous reasons for the increased preference for e-booking among consumers is its convenience, making it

possible for them to access a wider variety of goods and services, and to make price comparisons with greater ease and efficiency (Pueschel et al., 2017). Furthermore, it makes it possible to carry out other functions, anywhere and at any time of the day or night. E-booking also offers immense benefits to businesses. For instance, it allows businesses to attract more customers, expand the market for various services, enhance brand awareness, and gives them the ability to reach out to consumers who would otherwise not make in-store purchases.

Table 2-1 Online Travel Market Comparative Data

Regions	**Total Travel Market ($ billion USDs)**	**Online travel market ($ billion USDs)**	**Online %**	**Offline %**
Europe	294	107	36	64
The United States	276	98	35	65
Asian Pacific	215	55	25	75
*Gulf Countries	62	10	16	84

*Data Collected in 2011 (Sources: Travelport, PhoCusWright)

In the past three years, travel has become one of the largest and most competitive online sectors in the Middle East and North Africa. However, the quantity of online travel booking services in the region does not match the number of e-bookings in Europe or the U.S.A. The United States and Europe account for about 79% of global e-travel revenue (see Table 2-1), the majority of global e-travel, while the Middle East and North Africa account for only about 3% (Kamaruzaman et al., 2010).

According to Internet Live Stats (2017), approximately 47.5% of Saudi Arabians were using the Internet by the end of 2017. The explosion of Internet users indicates substantial marketing opportunities for B2C businesses. However, to benefit from these opportunities, marketers need to enhance their comprehension of online consumer behaviour, and in turn create marketing strategies which will drive high conversion rates, while at the same time

maintaining high retention rates for existing customers (Doolin et al., 2005). Recent data however indicates that only a small portion (16%) of travel transactions in the Gulf States are made online.

2.2.5 Saudi Arabia E-Commerce

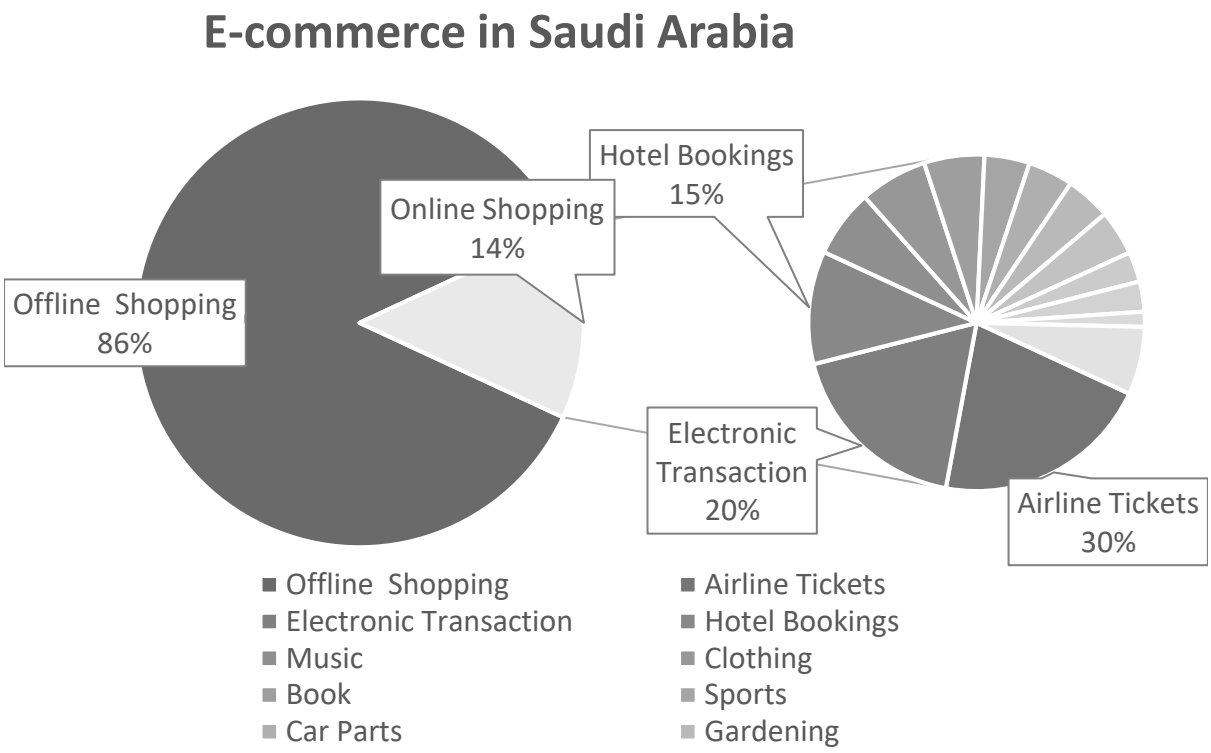

Figure 2-2 E-Business Sales in Saudi Arabia. (Sources: Travelport & PhocusWrght)

The speed of e-business acceptance in Saudi Arabia remains low, although the speed of adoption of e-business relative to other Arab countries places Saudi Arabia at the forefront (see Figure 4-2). The percentage of Internet consumers in Saudi Arabia is considerably lower than the U.S., at 14% (U.S. Department of Commerce, 2011). The literature explains various reasons why consumers have not wanted to use online technologies for purchasing.

According to a leading publisher in the US travel and tourism market (PhocusWright), Saudi Arabia accounted for a very limited portion of travel transactions, as only 14% of reservations were transacted (Faraj, 2013; Alolayan, 2017). This means that 86% of travel transactions were completed offline. However, the travel market has become the dominant online sector by market share, representing 45% of total e-business transactions in Saudi Arabia (see Figure 4-2). Despite these facts, most of literature has focused mainly on investigating consumer behaviour regarding online technology in the banking sector.

2.2.6 ICT Sector

The Kingdom of Saudi Arabia recognizes the central role of information and communication technology in changing society and the economy of the country. This has resulted in massive investments in ICT, totalling around 111.98 billion SR (£23.18 billion) in 2014. Some of these investments include introduction of hardware and software, integration of education, healthcare and transportation with IT services, and smart cities (Communication and Information Technology Commission, 2015). However, the issue of e-services is complex and surpasses technical and/or financial reasons, involving knowledge and social, political and cultural aspects as well.

Efforts at introducing information and communication technology span as far back as the 1990s, when the Internet became available for the first time. Saudi Arabia introduced the Ministry of Communication and Information Technology to control ICT processes and to manage the dissemination of Internet technology across the country. The government also embarked on a series of projects aimed at increasing awareness among the public regarding the abilities of this new technological innovation. The King of Saudi Arabia ensured that

every household in the country could acquire a computer at a subsidized price. Furthermore, school pupils were equipped with relevant information technology skills to enhance their computer literacy and to counter the digital divide in Saudi Arabia. The Ministry of Communications and Information Technology sought to liberalize ICT in the country by increasing investments and encouraging more competition. This resulted in more revenues in the ICT sector (Communication and Information Technology Commission, 2010). Furthermore, the Ministry also established a long-term national vision, by converting the country into a digital economy through increasing productivity, and positioning the information industry as a significant income source (Ministry of Communication and Information Technology, 2016). This is discussed below.

2.2.7 The National Information Technology Plan

A national information technology plan was established by the Saudi government to achieve a set of objectives, including creating employment opportunities for young people in the country. This plan was also aimed at establishing a strong ICT market, which would reinforce the economy of Saudi Arabia. Other objectives for the plan were to strengthen national security, introduce cost reductions, improve efficiency in operations, and to create a conducive environment where e-business, e-learning, e-government and e-health would modernize society without undermining the Islamic and Arabic culture of the country.

2.2.8 ICT Indicators

Table 2-2 ICT Indicators of Saudi Arabia. (Source ITU 2017)

Various Statistic (2016)

Fixed-telephone subscriptions per 100 inhabitants	12
Mobile-cellular subscriptions per 100 inhabitants	157.6
Fixed (wired)-broadband subscriptions per 100 inhabitants	23.4
Mobile-broadband subscriptions per 100 inhabitants	78.5
Households with a computer (%)	69
Households with Internet access at home (%)	94.6
Individuals using the Internet (%)	73.8

There are several indicators which support greater willingness towards use of e-services in Saudi Arabia. For instance, the coverage of mobile phones subscriptions was 157.6 per 100 inhabitants in 2016. During the same year, there was 95% penetration in terms of mobile subscriptions, which was a massive increase from 2001, when the penetration was only 12%. Furthermore, there has been an increase in fixed-wired broadband in the country. There were 23 subscriptions per 100 inhabitants in 2016, which allowed Internet access to 94.6% of households in the country (see Table 4-6). The number of Internet users in the country also increased from one million users in 2001, to 17 million users (70% of the population) in 2016 (Internet Live Stats, 2017). This increase in penetration was attributed to greater accessibility of people to Internet infrastructure, and to computers. However, most Internet users in Saudi Arabia use technology mainly for entertainment, or for communicating with friends and family.

2.2.9 Studies on Saudi Arabian E-Commerce

According to Alfuraih (2008), the three main pillars of e-business are: communication within the e-business systems, payment systems and delivery systems. However, although Saudi Arabia has witnessed massive developments in ICT, the country only adopted this new

technology comparatively recently, relative to most other countries. This slow development of e-business in Saudi Arabia relative to other countries has resulted in inefficient service delivery in e-business. Hence there is much to be done to improve delivery of quality services and products to customers. For instance, delivery of goods via post could be improved by reducing waiting times. Such inefficiencies also abound in the banking sector. For instance, Saudi Arabia is yet to fully embrace credit cards, as compared to other countries. The adoption of credit cards has mainly been hindered by religious challenges, including interest payments, although bank transactions in Saudi Arabia are conducted on a mutual basis, and are centrally controlled by the Saudi Arabian Monetary Authority (SAMA). There are two major categories of company which are involved in e-business in Saudi Arabia: Saudi Trading Partners, and transportation companies. Their involvement in e-business is mainly highlighted by the fact that these companies source different products from local, as well as international suppliers, through e-business.

Al-Somali et al. (2009) conducted research on the banking sector, employing the Technology Acceptance Model to investigate the factors affecting adoption of online banking. Their study revealed that social influence, awareness of online banking and its benefits, quality of Internet connectivity and computer knowledge affected the acceptance of e-services. These factors affected the Perceived Ease of Use (PEOU), as well as Perceived Usefulness (PU) of adopting online banking. These findings suggest that the probability of accepting online banking was affected by trust, level of education and general resistance to change in society.

AlGhamdi et al. (2012) proceeded to explore the various cultural, business and technical issues affecting Saudi Arabians when using electronic commerce. According to the authors, these factors included poor ICT infrastructure, and unsystematic postcode systems, which

undermined the efficient delivery of e-business services. The authors also discovered that there was a lack of competitive advantage, which is often synonymous with e-business, and inadequate support in these services for Saudi citizens. Other elements which undermined the acceptance and operation of e-business in Saudi Arabia included limited experience in e-business, general resistance to change, limited trust in online systems, absence of legislative systems and high set-up costs. AlGhamdi et al. (2012) recommended that the government should adopt effective educational programmes to increase awareness of electronic commerce among the public, and to enable it to offer trials of e-business, which will ultimately boost the level of acceptance of these services in the country.

2.3 Technology Adoption

Retailers need to continuously seek ways of reducing the degree of risk perceived by consumers, to increase their online sales (Shen & Chiou, 2010). Related studies by Donthu and Garcia (1999) discovered that online shoppers are comparatively less averse than non-online shoppers. However, the influence that risk perception may exert on adoption decisions has received limited attention (Martins et al., 2014). Therefore, it is essential to comprehend the effect of perceived risk and trust on the adoption of e-booking.

The past decade has witnessed a tremendous evolution in information and communication technology. In fact, the Internet has become part and parcel of everyday life, such that virtually every aspect of contemporary life is intertwined with technology. The development and growth of information technology has also had profound impacts on most of industries, particularly the tourism and travel industry - one of the largest and fastest growing industries

in the world. Tourism and travel, coupled with the financial industry, are the largest IT users in the area of marketing and distribution of related services (Faraj, 2013).

The advancement of information technology has had a profound impact on the travel business. This is mainly due to the numerous opportunities it provides for interaction between people, suppliers, customers and partners, regardless of the distance between them. The Internet also offers unique opportunities for travel marketers to market and sell their products via this medium. This has contributed to the development of many spheres of tourism, including airlines, travel and hotel agents. Most of tourism firms in the Kingdom of Saudi Arabia make use of the Internet to market and to distribute a wide array of travel services. It has affected how customers communicate and interact with the firms and their products. Many travel companies, such as hotels, airlines and tourism organizations provide consumers with the option of booking or buying their various services online.

Technology adoption models are considered influential research models in IS and IT related fields. They offer valuable representation of the underlying factors, which affect user acceptance on the use of information technology. These adoption models have been critical in forecasting, as well as evaluating acceptance of information technology among users. They have also been useful in explaining and predicting the various factors, which influence consumer behaviour towards information systems. The Technology Acceptance Model (TAM) utilises the Theory of Reasoned Action (TRA) as the underlying basis for identifying causal relationships between perceived ease of use, perceived usefulness, user acceptance and actual use of the specific technology (Davis et al., 1989; Venkatesh & Davis, 1996).

As this study investigates the link between customers' behavioural intention (acceptance or rejection) toward an online service product (technology versus intangible service products), it made sense to use either the Unified Theory of Acceptance and Use of Technology (UTAUT), the expanded Unified Theory of Acceptance and Use of Technology Two (UTAUT2), or the Technology Acceptance Model (TAM) in the study. This section critically reviews the two (UTAUT/TAM) most influential models in technology adoption studies, according to *MIS Quarterly*, and explains the new consumer-centric model of UTAUT, known as UTAUT2. Critically reviewing the three models helped to identify the most influential articles and offered some indication of the future of these models (see Table 2-2).

2.3.1 Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) has been the most commonly used model for measuring customers' acceptance and use of technology in previous studies. The TAM model was employed to examine system use in approximately 40% of previous studies on technology acceptance (Legris et al., 2003).

The development of this model includes an explanation of how customers can accept and use new technology. It is suggested that when customers intend to use new technology, two main factors impact their decision about how and when they will use it (Davis, 1989). The TAM's two main components are:

'Perceived usefulness', which Davis defines as *"the degree to which a person believes that using a particular system would enhance his or her job performance"* (Davis, 1989: 320); and **'Perceived ease of use'**, which is *"the degree to which a person believes that using a*

particular system would be free from effort" (Davis, 1989: 320). These are elaborated below.

Perceived ease of use and perceived usefulness have a profound impact on the adoption of new technologies in different sectors, such as health, banking and education (Bagozzi, 1992; Davis, 1989; Klopping & McKinney, 2004; Lederer et al., 2000; Lin & Lu, 2000). However, criticism of TAM has increased over the years concerning how well it can measure perceived usefulness and perceived ease of use. A co-author of Davis and previous faculty member at MIT (when Davis was a PhD. candidate), Professor Bagozzi, argues that the numerous and inconsistent results of previous studies using TAM create chaos, leading to 'incoherent' and 'fragmented' knowledge (Bagozzi, 2007). Bagozzi questions the relationship between the constructs of TAM, calling the formula 'poor' and 'deterministic'. He argues that most previous studies encouraged 'broadening' TAM instead of 'deepening' it. In addition, he explains that it is misleading to represent intention as a determinant of action, because of the time gap between intention and actual use. In other words, users could be ill-informed about a system, which could lead to their temporarily agreeing to use it (Bagozzi, 2007).

Furthermore, scholars argue that the TAM model might attract researchers because of its simple and easy formula, so that less attention is given to the real problem of technology acceptance (Lee et al., 2003). Hence, the research using TAM model may have reached a saturation point, and that researchers should focus on developing extended models that are able to expand knowledge about the use and acceptance of technology.

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

The Unified Theory of Acceptance and Use of Technology (UTAUT) - the second most popular model of technology adoption - was introduced by Venkatesh et al. (2003). This model comprises four primary constructs: performance expectancy, social influence, effort expectancy and facilitating conditions. However, age, gender, voluntary use and experience may have a moderating effect on these primary constructs. The main constructs of this model were built from eight diverse models of system use, including: the Theory of Planned Behaviour (TPB) developed by Ajzen (1991), the Technology Acceptance Model (TAM) developed by Davis (1989), the Theory of Reasoned Action (TRA) (see Sheppard et al., 1988 for a review of this model), the Motivational Model (MM) by Davis et al. (1989), Model Combing the Technology Acceptance Model and the Theory of Planned Behaviour (C-TAM-TPB) established by Taylor and Todd (1995b), Innovation Diffusion Theory (IDT) coined by Rogers (1995), Model of PC Utilization (MPCU) established by Thompson et al. (1991) and the Social Cognitive Theory (SCT) by Bandura (1986). The four primary constructs of the UTAUT model are able to explain 70% of the variance in intention to use, and 50% of actual use (Venkatesh et al., 2003). According to Bagozzi (2007), this model is 'thoughtful', and 'well-meaning'.

There are scholars who criticize the UTAUT model. A recent study states that the high number of UTAUT citations does not represent the usage of the model; in fact, few studies fully or partially implement the model. This suggests a need for more investigation to validate the relationship between the constructs. Bagozzi argues that neither the 41

independent variables said to predict behavioural intention, nor the eight independent variables said to predict behaviour are ‘fundamental’, ‘generic’ or ‘universal’. He suggests that the field of information systems is at risk of being ‘overwhelmed’, ‘confused’ and ‘misled’ by the growing evidence of controversial results of studies (Bagozzi 2007).

2.3.3 Unified Theory of Acceptance and Use of Technology II (UTAUT2)

Venkatesh et al. (2012) expanded the UTAUT model by adding three more core constructs: hedonic motivation, habit and price value to tailor the model to the consumer context, instead of the organisational setting.

Scholars investigating hedonic motivation in consumer behaviour and information systems over the last twenty years have found that a variety of constructs relate to hedonic motivation, such as enjoyment, leisure and happiness, and that this has a significant impact on consumer behaviour (Brown & Venkatesh, 2005; Heijden, 2004; Holbrook & Hirschman, 1982). Venkatesh et al. (2012) argue that adding hedonic motivation constructs will increase the ability of UTAUT to predict behaviour.

Venkatesh et al. (2012) proposed that UTAUT2 should drop voluntariness as a moderator and add a link between the construct of facilitating conditions that may be moderated by age, gender, experience and behavioural intentions, retained from the original UTAUT. Venkatesh et al. (2012) slightly modified the definitions of the core constructs in relation to UTAUT2 to suit the constructs to the consumer context.

Based on the following review of the literature, perceived risk and trust belief are identified as essential factors in technology adoption. Therefore, this study will attempt to integrate these two factors with the new model of technology adoption (UTAUT2). Further detail regarding the model's different constructs and relationships are discussed in Chapter Three: Development of Conceptual Model.

The model has been used in different e-business contexts of study. Examples of key studies are shown below in Table 2-2. A general overview of previous studies regarding the gap in knowledge and future direction of research reveals an interesting point: the inclusion of the constructs of usage and intention in the models varied among researchers (See Appendix VIII)[1]. Some studies used adopt/use, while others used different terminology, such as intention/intensity through self-reporting. The studies in general followed a quantitative approach based on survey. The tools employed were generally interviews, self-administered questionnaires and online surveys. The UTAUT model was employed to examine consumers' behaviour in different contexts, such as e-banking, e-travelling and e-leaning towards online use and acceptance in various locations worldwide. Hence the perceived risk of this model has not been fully investigated or covered so far in the literature review. The next section is devoted to exploration of this aspect.

[1] Clicking on URLs link (Ctrl+ Right Click) moves to exact section on this document.

Table 2-3 UTAUT Application in e-business Studies (Gap / Future Research)

Author, Year	Purpose	Context	Sample	Gap	Key Finding	Future Direction
Al Qeisi et al. (2014)	Firms gain many benefits from well-designed websites. However, which elements of website design quality really matter, and how do these elements influence usage behaviour?	E-Banking	216	Web Design Quality has not been thoroughly investigated in relation to technology adoption.	The general content and appearance dimensions of a website are most important to users. These dimensions are significantly related to usage behaviour directly and indirectly. A halo effect may influence overall evaluation of website because the dimensions of website design quality are interrelated.	Longitude study instead of cross-section survey. Applied more broadly to other forms of technology in other countries.
AbuShanab and Pearson (2007)	What are the key determinants of the adoption of Internet banking in Jordan?	E- Banking	878	Research in the area of technology acceptance generally has lacked the integrated view needed to understand the domain.	Performance expectancy, effort expectancy, and social influence were significant and explained a significant amount of the variance in predicting a customer's intention to adopt Internet banking. Gender moderated the relationships between the three independent variables and the dependent variable (behavioural intention).	Future studies should investigate the appropriateness and robustness of the UTAUT for different applications and within different cultures. Future research should investigate the Arabic instrument and validate it in further implementation. More research is encouraged to validate the instrument and refine it (maybe add more items) to fit with Arabic/Mediterranean culture.

Author, Year	Purpose	Context	Sample	Gap	Key Finding	Future Direction
Al-Gahtani et al. (2007)	Empirically validate a modified UTAUT model in a non-Western cultural context, specifically Saudi Arabia, and explain anomalies between these validations in terms of cultural differences that affect the organizational acceptance of IT.	Internal Organization	722	UTAUT theory has been exclusively validated in the North American contexts. Clearly, in contexts removed from Western nations, the impact of subjective norms on the individual and organizational acceptance of IT could vary markedly.	The UTAUT Model explained 39.1% of intention to use variance, and 42.1% of usage variance. The study explains similarities and differences between the North American and Saudi validations of UTAUT in terms of cultural differences that affected the organisational acceptance of IT in the two societies.	Future study should be longitudinal. Furthermore, future study should target intentions and behaviour with respect to application software use.
Chiu and Wang (2008)	Explore individuals' intentions to continue using Web-based learning in a voluntary setting.	E-learning	286	Web-based learning success depends mainly on learners' loyalty, i.e., continued use. The importance of continuance is obvious: customer turnover can be costly—the cost of acquiring new customers is higher than that of retaining existing ones.	Performance expectancy, effort expectancy, computer self-efficacy, attainment value, utility value, and intrinsic value were significant predictors of individuals' intentions to continue using Web-based learning, while anxiety had a significant negative effect.	Other variables should be examined. Study should be longitudinal Avoid self-selection bias.
Escobar-Rodríguez and Carvajal-Trujillo (2014)	Examines determinants of purchasing flights from low-cost carrier (LCC) websites.	E- Travel	1096	Despite the price saving that consumers can obtain by purchasing air tickets on LCC e-commerce websites, they have little confidence in these websites	Key determinants of purchasing are trust, habit, cost saving, ease of use, performance and expended effort, hedonic motivation and social factors. Of these variables, online purchase intentions, habit, and ease of use are the most important.	It is recommended that future papers should focus on analysing the influence of other constructs on LCC air ticket online purchase intention and online purchase use. Future studies could also examine the suit-ability of the model

Author, Year	Purpose	Context	Sample	Gap	Key Finding	Future Direction
						proposed for other kinds of tourism products and services such as train tickets, travel packages and accommodation. In addition, the influence of social- demographic variables as moderator variables might be examined.
Im et al. (2011)	Examining the relationships of the constructs in the UTAUT model to determine how they are affected by culture.	E- Banking	363 from Korea and 138 from the US	UTAUT model does not include cultural factors. ITs are being utilized in many countries and it is crucial to obtain a better understanding of the impact of culture on technology adoption.	The comparison of Korea and the U.S. revealed that the effects of effort expectancy on behavioural intention and the effects of behavioural intention on use behaviour were greater in the U.S. sample.	Future study should investigate elder consumer acceptance of technology. Future study should be conducted in different country.
Liu and Forsythe (2011)	This research intends to examine whether the early adopters of the online channel are more likely to buy a wide range of products and more frequently than the late adopters.	E-Booking	598	The degree of usage after initial adoption should be examined to identify factors which sustain more post-adoption usage and hence better understand diffusion process.	Factors influencing post-adoption usage differ across the two groups, suggesting that adoption timing has a moderating effect on relationships specified by the UTAUT mode.	Post-adoption use of the online channel is dynamic and multi-dimensional. Explore the direct effects and interaction of adoption duration and usage experience on purchasing intensity. Explore different approaches to conceptualise, operationalise, or measure the construct hedonic performance.
San Martín et al. (2012)	This study explores the process of adoption of new information	E-Travel	1083	The popularity of new information technologies has led international	The online purchase intention is positively influenced by the levels of performance and effort expected about the	Online Purchase Intention

Author, Year	Purpose	Context	Sample	Gap	Key Finding	Future Direction
	technologies by the users of rural tourism services and, more concretely, the underlying psychological factors of individuals that explain their intentions to make bookings or reservations directly through the websites of the rural accommodations.			researchers to perform extensive research on information technologies and tourism. However, a greater amount of effort is needed to gain more precise knowledge of web-based e-commerce in the tourism industry. While	transaction, and the level of innovativeness of users. In addition, the innovativeness construct has a moderating effect on the relationship between performance expectancy and online purchase intention.	
(Gupta et al., 2018)	This study aims to identify factors affecting tourists' intention of using travel apps installed in their smartphones.	E-Travel	389	Technology adoption has been studied somewhat extensively, specific nuances associated with the adoption of smart phone apps have not received sufficient scholarly attention.	Significant predictors of smartphone app usage intention included performance expectancy, social influence, price saving, perceived risk, perceived trust and prior usage habits. Usage behaviour was largely mediated by usage intention, except in the case of habits. Contrary to the expectation, factors such as hedonistic motivation, facilitating conditions or effort expectancy did not impact usage intention or behaviour.	The proposed model predicted just less than half of all the variance in purchase intention or behaviour. Thus, it is suggested that future studies can focus on examining the effects of other variables on consumers' intentions to adopt smartphone apps for making travel purchase/bookings. As the effect of moderating variables included in UTAUT2 was not tested, future studies could also examine the moderating effects of age, gender and experience on the variables influencing behavioural intentions.

Author, Year	Purpose	Context	Sample	Gap	Key Finding	Future Direction
(Blaise et al., 2018)	Seeking to fill a gap in current research on the conditions that would facilitate user acceptance of m-commerce.	M-Commerce	165	Whereas past research expanded knowledge about attitudes and perceptions toward e-commerce that drive consumer purchase intentions and provide a competitive advantage, the fundamental behavioural dynamics associated with m-commerce are yet to be clearly delineated.	Performance and effort expectancies, social influence, as well as the facilitating conditions of trust in the use of m-commerce, were found to significantly predict m-commerce purchase intentions. The findings also provided further clarification of the facilitating conditions of m-commerce purchases suggesting that implicit motivations and approach-oriented goals might be significantly associated with m-commerce purchase intentions.	Whereas the findings from this research provide some clarification to the facilitating conditions construct in the UTAUT framework, further research is needed in this direction. Future research might include investigation of the motives behind m-commerce purchase intentions to further clarify the nature of m-commerce facilitating conditions. Future experimental research that manipulates performance and effort expectancies, social influence, and facilitating conditions to determine their independent effects on m-commerce purchase intentions would be worthwhile.

Author, Year	Purpose	Context	Sample	Gap	Key Finding	Future Direction
(Fong et al., 2017)	This study unveils the cognitive mechanism that locus of control (LOC) dimensions (internal control, chance control, and control by powerful others) predict intention to reuse mobile apps for making hotel reservations.	Mobile App Hotel Reservations	457	Little is known about what drives consumers' intention to continue using mobile apps for making hotel reservations (henceforth "intention to reuse"). Although LOC greatly affects technology adoption, the cognitive mechanism that links LOC and technology adoption also requires exploration.	Results show direct positive predictions of intention to reuse from UTAUT anchors including performance expectancy, effort expectancy, social influence, and facilitating conditions. Perceived risk also negatively predicts intention. Effort expectancy mediates the links between internal/chance control and intention, whereas perceived risk mediates only the latter link. Facilitating conditions mediate the relationship between control by powerful others and intention.	Replications of this study in other cultures should be informative. Future research may measure actual behaviour by re-approaching participants. All participants have experienced using mobile apps for making hotel reservations, so we cannot conclude that our findings are suited to initial adoption, thereby leaving a void for future studies to fill.
(Chang et al., 2016)	To show how virtual community building, website performance expectancy, effort expectancy, trialability, and two mediators (familiarity and perceived risk) interact and affect online shopping intention.	E-Retailers	430	Few scholars have used UTAUT to examine intention to engage in online shopping	The results show that performance expectancy and effort expectancy positively affect website familiarity; virtual community building and trialability positively influence product familiarity; and perceived risk negatively affects purchase intention. In addition to the effects demonstrated by the regression results, website familiarity and product familiarity also have mediation effects.	Future studies may include facilitating conditions or compatibility in their models, in order to explore whether the life style or shopping experience of consumers will influence their purchase intentions and behaviours. Future research can extend the types of 3C products examined, such as computers, MP3 players, and cameras.
(Nysveen & Pedersen, 2016)	This article, an extended version of	RFID-Enabled	560	Although limited and fragmented, the few	The results show significant influences from performance	The lack of support may also be attributed to the fact

Author, Year	Purpose	Context	Sample	Gap	Key Finding	Future Direction
	the unified theory of acceptance and use of technology (UTAUT) is applied to explore the significance of various antecedents of acceptance of eight versions of a radio frequency identification (RFID) enabled service.	services		studies explaining antecedents of consumer adoption of RFID technology mainly focus on system perceptions and personality traits as antecedents of RFID acceptance. System characteristics suggested in the literature are factors such as security benefits, and antecedents we know from the technology acceptance model (TAM).	expectancy, effort expectancy and technology anxiety on attitude to use RFID-enabled services, while facilitating conditions and attitude to use both have significant influences on intention to use the services. Gender moderates most of the relationships in the model while age and experience with identification technology do not seem to be relevant moderators. Experience of the service is found to moderate some of the relationships.	that few RFID- enabled services are available for consumers today. Hence, the general level of experience with RFID-enabled services is low and thus, the variance in the level of experience with RFID-enabled service is small. Future studies may manipulate experience with RFID-enabled services by varying the level of information about RFID-enabled services provided to experimental groups. However, in a few years, it is believed that the number of RFID-enabled services will increase, and that variation in experience with RFID-enabled services will be present among consumers. That will enable more robust tests of potential moderating effects of experience on RFID-enabled services.
(Apiraksattayakul et al., 2017)	This study presents an empirical investigation as to the key determinants of purchase intention towards clothing on Instagram.	E-Shopping through Instagram	200	The factors influence customer intentions towards buying apparel via Instagram have not investigated.	The results suggest that four aspects contribute positively towards customer purchase intentions (perceived social value, perceived price value, perceived quality value and perceived benefits) while, in	Future studies could examine a more representative sample of the population and / or, more broadly speaking, of Instagram users. Further studies could

Author, Year	Purpose	Context	Sample	Gap	Key Finding	Future Direction
					contrast, risk perceptions have been found to adversely impact upon customer purchase intentions. Two other aspects, perceived emotional value and electronic word of mouth, have been found to have no significant influence upon purchase intentions.	consider other types of products and the impact this might have on customer purchase intentions. Future studies may wish to incorporate additional independent variables in order to gain a more holistic understanding of consumer behaviour.

2.4 Risk Perceptions

With the development of online technology, consumers' perceptions of risk are also changing. A new risk facet that has developed regarding privacy concerns has become salient to understanding the consumer apprehension of perceived risk (Featherman & Pavlou, 2003).

An online transaction does not only include the two primary parties – the buyer and the seller, but also extends to a third party. In this case, the third party is the intermediary, whose impact also needs to be considered. In this regard, the consumer's purchase behaviour is not solely affected by perceptions of risk and trust of the seller, but also by perceptions of trust and risk concerning the intermediary, such as the network or payment system, via which the transaction will take place. This has fuelled the debate about perceptions of risk, as well as the various means consumers seek to minimize this risk (Hoffman et al., 1999). The process of making payment through intermediaries is constantly open to concerns of consumers (Jayawardhena & Foley, 1998).

2.4.1 Early Conceptualisation of Risk

The theory of perceived risk is one of the earliest concepts highlighted in consumer behaviour literature as far back as the early 1960s (Mitchell, 1992). The concept is backed by a wide body of literature and an array of scholarly intent on dissecting the components of perceived risk in a bid to better understand its role in consumer behaviour. Some of the earliest accounts in the literature on perceived risk can be traced back to the studies of Bauer (1960) and Cox (1967). According to Bauer (1960), perceived risk was a combination of uncertainty and the degree of seriousness involved in the result. Later, other perceptions and definitions

of perceived risk arose. For instance, in the mid-1970s, Peter and Ryan (1976) observed perceived risk not so much as a combination of uncertainty and seriousness per se, but rather as the anticipation of losses related to purchases, which behaved as an inhibitor to purchasing behaviour.

In alignment with Cox's (1967) work, Jacoby and Kaplan (1972) developed a series of hypotheses in different purchasing scenarios, which were conceptualized and examined to determine the potential risks that may have operated. Five types of risk were identified in these different scenarios, which represented the types of risk found in the previous work of Cox. These types of risk were: social risk, psychological risk, physical risk and performance risk. A study by Corbitt et al. (2003) explored the six main aspects of perceived risk, but also introduced reliability, privacy and security, as consumer concerns regarding technology's degree of credibility. Some scholars compared personal, economic, privacy and functional concerns as unique fears within the conceptual model (Yousafzai et al., 2003).

Parallel to early literature on the subject, the dimensions of perceived risk can be traced back to research in the 1960s. It was during this period that Cunningham (1967) identified two classes of psychological risk and performance. The author further characterised these categories using six key dimensions: financial/economics, performance/functional/ psychological loss, safety/privacy, opportunity/time and social. Subsequent studies by Jacoby and Kaplan (1972) built on the seminal work of Cox (1967) to infer a general measure of perceived risk. Additionally, Stone and Grønhaug (1993) built on existing literature and knowledge on perceived risk, observing that the initial six aspects could be responsible for about 88.8% of cumulative perceived risk. The implication of this report is that it was possible to approximate or anticipate perceived risk against these dimensions. This report

followed some fascinating discoveries by Bellman et al. (1999), who argued in favour of the significance of time consideration in the prediction of online purchasing behaviour, as discussed further below.

The theory, as well as the concept of PR has evolved significantly over the last four decades. Studies such as those of Mitchell (1999), Stone and Grønhaug (1993) and Ross (1975) demonstrated early attempts to embed PR in consumer behaviour, which became crucial in understanding the consumer behaviour decision-making process. In fact, the concept of PR has been examined, advanced and applied through a variety of dimensions in order to enhance and substantially develop the knowledge of consumer behaviour (Cox, 1967). The study of PR was very prominent during the 1970s (Stone & Grønhaug, 1993), whereas in the 1990s, there were only a few studies in this domain (Mitchell, 1999). However, more recently, there has been an increasing tendency among researchers to employ the concept of PR in consumer theories again. Studies such as those of Corbitt et al. (2003), Huang et al. (2004) and Lim (2003) have indicated a new direction of research in PR.

Besides the five risks identified by Cunningham (1967), physical risk aside, other scholars such as Featherman and Pavlou (2003) illuminated the significance of the concept of privacy risk. They were able to achieve this through examinations based on the Technology Acceptance Model (TAM) within the context of e-services. Featherman and Pavlou (2003) explained the significance of overall risk in the context of the five aspects of risk Cunningham (1967) reported, excluding physical risk, by including these aspects in the Technology Acceptance Model relating to e-services. Featherman and Pavlou (2003) also categorised perceived risk into six main components: time, performance, social, financial, safety and psychological loss. The authors empirically explored the risk model within the

context of internet e-services, by substituting the physical risk facet with privacy risk, and integrating perceived risk in the TAM model. Privacy risk was more relevant than physical risk within the selected context. During the same period, scholars such as Corbitt et al. (2003) also studied the perception of risk in consideration of financial, performance, psychological, social and time risk. They regarded security, reliability and privacy concern in the context of the trustworthiness of technology. Further studies by Yousafzai et al. (2003) drew attention to the functional, personal, economic and privacy risk specific to transaction uncertainty using the e-trust. Cunningham et al. (2005) also conducted their own studies relating to online payments, testing the original six dimensions of risk identified a few decades before (Cunningham,1967). These six dimensions of perceived risk were employed in the measurement of overall risk between China and the UK by Veloutsou and Bian (2008). In light of this, it became apparent that accountability of these dimensions of perceived risk was dependent on the context of purchase behaviour, the situation itself and cultural dissimilarities, which varied depending on the environment and the specific transactions (Veloutsou & Bian, 2008; Stone & Grønhaug, 1993).

2.4.2 Theories of Risk

There is no single best or universal definition of risk, as the concept itself is very complicated. Individuals seem to disagree more over what risk is than the extent of its measure. Hence, it has been both understood and explained differently across numerous areas of research. For instance, in economic, statistical or psychological decision-making, risk is usually interpreted as a situation where a person has adequate knowledge of the potential negative, as well as positive results (Dowling, 1986; Stone & Grønhaug, 1993). Researchers

such as Smith et al. (2002) agree on the interpretation of risk as the ability to have a full and proper understanding of possible outcomes even before the event occurs.

In consumer behaviour, as mentioned by Cunningham (1967), risk contains two possible aspects: chance aspects and danger aspects. The 'chance aspect' is often referred to as the chance of occurrence or 'probability', whereas the 'danger aspect' is mostly concerned with negative outcomes.

The concept of Perceived Risk (PR) occupies an important place in consumer behaviour literature when viewed from the perspective of the consumer decision-making process. Some well-documented research work from the literature, including Conchar et al. (2004), Dowling (1986) and Mitchell (1999), provides critical reviews regarding this concept, suggesting that PR is a crucial element in attempting to understand consumer behaviour.

Dowling (1986) states that the term ‘risk’ is a complex concept but is very important for understanding the process of decision-making among individuals. It has a significant impact on the consumer decision-making process. However, according to Bauer (1960), the risk perspective in consumer behaviour still remains deficient in current research. The complexities arising from his research work led Bauer to introduce PR in consumer behaviour theories, as "the process of consumer behaviour incorporates a certain extent of risk which any action from a consumer would produce and this alone cannot anticipate entirely with any approximate, as some of the outcomes occurring from such fact may be unpleasant" (Bauer 1960, in Cox 1967a: 24).

Bauer (1960) further encouraged researchers to employ PR as a hypothetical and psychological construct in the study of consumer behaviour. According to him, incorporating

PR in consumer behavioural study can facilitate practitioners and researchers to have a more comprehensive understanding of consumer behaviour in the true sense of the term.

2.4.3 Risk and Uncertainty

The argument below highlights that uncertainty or lack of knowledge about an event's outcomes can be a justified as part of the PR definition used in this study. This section will present further arguments in support of this point through an in-depth review of previous studies.

Quintal et al. (2010) argue that there is a close relationship between risk and uncertainty, and that these two concepts are typically discussed in tandem. In early studies, research devoted more attention to the component of uncertainty than the component of consequence. Hirshleifer and Riley (1979) and Morgan and Hunt (1994) observe that whereas in early PR work, the component of uncertainty attracted more research interest after proposals on the risk dimensions, research focus shifted from uncertainty towards consequences.

The current argument is whether a distinction should be made between risk and uncertainty (Knight, 1921). This argument has its roots in economics. Within this context, Knight explains that there is a direct relation between risk and known probability. Likewise, uncertainty and unknown probability relate to each other.

Probability thus depends on subjective beliefs, opinions and judgements from experience. Therefore, the actual measurement of probability in terms of uncertainty is very difficult. Generally, there are three approaches to judging probability. The first approach refers to judgement of 'a priori' probability. 'A priori' probability means that it is possible to assess

the probability of a particular event before it occurs, using only knowledge of the situation (Morris, 2008). Morris argues that the probability of the various possible outcomes is the same.

Prior knowledge is a preceding condition in this case, and is essential in the calculation of probability using the 'a priori' method (Morris, 2008). There are many situations, such as decision-making in consumer behaviour, which undermine the a priori method, and render it impossible. Under these circumstances, the second method - judgement of statistical probability, or the experimental approach, is more appropriate. In practice, the estimation of probability based on empirical events or experiment, as opposed to defining the events beforehand, estimates probability by making use of statistics such as frequency (Knight, 1921).

The third approach is the judgement of confidence or credibility. This method is reliant on intuitive assessment, which is widely used in business studies and was proposed by Knight (1921) and Morris (2008). Mitchell (1999) concurs that business situations typically involve a high degree of complexity. Therefore, it is difficult to calculate adequately their probability. Cunningham (1967) draws attention to the argument that a consumer's subjective judgement, perception of experience, or practices that affect individual decisions tend to influence consumer behaviour. This goes against the position that 'true' or 'objective' probability influences consumer behaviour. Mitchell (1999) raises the question of whether the probability distribution should be held as a 'known outcome' when the consumer holds subjective beliefs on probability in a specific situation. Within such a situation, individual subjective evaluation, and not objective evaluation, provide the basis for probability estimation. In fact, numerous consumer behaviour studies have discovered a close relationship between

uncertainty and risk, probably due to the practical separation of these two concepts (Stone & Grønhaug, 1993; Quintal et al., 2010).

2.4.4 Overlapping of Risk and Uncertainty

Due to the difficulties in distinguishing risk and uncertainty, most marketing researchers use these two terms loosely. Indeed, scholars such as Li et al. (2008) note that marketing researchers use risk and uncertainty to refer to the same concept. According to a brief review of Cox's (1967) book, dealing with information necessitates the handling of ambiguity and uncertainty. Quintal et al. (2010) make no distinction between uncertainty and risk in their studies, while Taylor (1974) uses these two terms interchangeably. The author interprets the problem of choice as the central problem of consumer behaviour. This is because we can only know the true outcome of a choice at a future time, and thus the consumer is forced to deal with the problem of uncertainty, or risk.

The above position illustrates the significance of choice in consumer behaviour. It is probably the reason consumers feel uncertain about their purchasing, evaluation of purchase-related satisfaction and purchasing goals when they make decisions under risk. As previously highlighted, these factors can significantly affect the consumer's risk perception. It would be rare for a consumer to have experienced all brands associated with a certain product range, because of the large number of products and brands. In most situations, the consumer will be familiar with some of the brands, but rarely all of them. Consequently, consumers often cannot anticipate the real outcomes of making a choice.

Over and above choice, consumers must still manage a huge amount of information. This is highlighted by Conchar et al. (2004), who remark that in most consumption situations,

information related to an objective or inherent value of the degree of risk associated with choice is absent. From this statement, it is evident that in many purchasing cases, the consumer's knowledge regarding all information relating to objective, inherent, or actual consequences of a purchase will be minimal. This view has been shared by several other researchers, including Mitchell (1999).

Taylor's (1974) position on choice and the lack of perfect knowledge is consistent with Bauer (1960) and Cunningham (1967), who state that PR within the context of consumer behaviour only concerns subjective risk. According to these researchers, it is not practical to distinguish between whether the buyer is dealing with risk or purchase uncertainty. Proponents of risk being the same as uncertainty, such as Cox (1967), argue that as the subjective probability of loss increases, uncertainty and subjective risk perception also increase. Similarly, complexity and uncertainty, in most project management researches, are adherent to each other (Williams, 1999).

This viewpoint is criticized by researchers Peter and Ryan (1976), who specifically state that PR should not be likened to uncertainty. This view is supported by Shimp and Bearden (1982), who state that PR should be distinguished from uncertainty. Peter and Ryan (1976) reiterate that in PR theory, viewing risk as negative outcome - evaluating the outcome of an event based on how it undermines utility - is the focus. This contrasts sharply with the normative theory of risk, whereby consideration is given to both positive utility and downside utility (associated with negative values). This emphasis on negative outcomes in PR literature is linked to prevailing arguments on objective and subjective risk (Shimp & Bearden, 1982). As previously discussed, in situations where knowledge of the actual outcomes is absent, calculating probability via the 'a priori' method becomes impossible. Consequently,

consumers encounter risk or uncertainty. Even in situations where objective risk exists, if the risk has no effect on the consumer's decision-making, then consumers will rely on their own beliefs about purchase outcomes. This means that if the risk is too small to attract the consumer's attention, or if the consumer feels no concern about the objective risk, he will rely on his own beliefs in purchase evaluation.

Consequently, Peter and Ryan (1976) view PR as the significance of loss and the probability of loss. Shimp and Bearden (1982) refine this definition to the expectation of loss. They indicate that the more certain a consumer is about expected loss, the more risk the consumer perceives, and thus the less uncertainty in the situation. Finally, these researchers highlight that in consumer research, which is dominated by individual psychological factors, the definition of PR as the expectation of loss is justified.

The discussion above shows that there are shared common roots between risk theory in marketing and other disciplines, such as economics and mathematics, but this theory develops different perspectives. For instance, Stone and Grønhaug (1993) found that the concept of PR is not clearly defined in consumer behaviour literature. PR and uncertainty are very close constructs, but they do not mean the same thing. As previously discussed, it is imperative to separate risk from uncertainty; the term 'risk' refers to a person's ability to know all objective outcomes prior to an event happening. A good example of this is having knowledge that enables the anticipation of all possible outcomes in a situation. Knowledge allows the consumer to calculate outcome occurrence. However, it is almost impossible for a consumer to have perfect knowledge about a purchase, particularly when encountering new products or brands. Furthermore, such knowledge may become meaningless or unrealistic in some

situations, such as impulse purchases. Therefore, the lack of knowledge about a purchase decision is common in consumer behaviour literature.

2.4.5 Objective vs. Subjective Risk

The debate on whether perceived risk consumer behaviour should be subjective or objective has been in existence for a long time. There is currently no consensus on the issue of whether PR should be objective or subjective. Unlike other fields, such as finance and economics, where the emphasis is on objective evaluation, numerous researchers on consumer behaviour argue that perceived risk considers consumers' subjective risk assessment (Boze, 1987; Conchar et al., 2004; Knuth et al., 2014; Mitchell, 1999).

Evidently, PR is a concept of subjective risk. Related research has revealed evidence supporting Mitchell's (1999) view on PR and consumer subjective risk assessment (Conchar et al., 2004; Knuth et al., 2014). The risk involved in consumer decision-making is a complex theory to comprehend. In early literature we learned that if the risk that exists in the real world is not noticed or perceived by consumers, then it is not objective risk, influencing consumer decision-making (Bauer, 1960). This view is shared by Mitchell (1999), Conchar et al. (2004) and Knuth et al. (2014), who consider PR from a subjective perspective. PR is mainly about consumers' subjective estimation of the various purchase outcomes and is dependent on a variety of inputs. This means that consumers' subjective perceptions of risk directly affect them, causing them to respond to risk individually.

Bauer (1960) explains that it is hard for consumers to know all possible outcomes that exist within a given purchase situation with a high degree of certainty. The likelihood of knowing all the possible consequences in advance is very unlikely. Customers may only be able to

predict a few. This view is shared by various scholars such as Cox (1967) and Cunningham (1967). Mitchell (1999) concurs with the opinions of Kaplan and Garrick (1981), who argue that researchers from different philosophical backgrounds will interpret probability in different ways. This is because they use the same word for different ideas, making them a major cause of confusion.

According to Mitchell's (1999) line of thought, realists can only accept objective risk and find various ways to measure real risk. By contrast, pro-relativism researchers would most likely disagree with this position, arguing instead that risk is dependent on individuals and situations. Based on this, subjective risk is therefore variable, subject to context. Mitchell argues that from a theoretical perspective, objective risk exists but is difficult to measure accurately. This issue was originally brought to light by Bauer (1960). According to Mitchell (1999), risks that are related to money or financial outcomes are relatively easy to evaluate, and yet the measurement of these outcomes can still create real complications. This is even more the case for psychological and social aspects. Both Bauer (1960) and Mitchell (1999) reiterated that while it is difficult to achieve an effective method for adequately assessing consumer risk perception, the development of such a practical approach is not impossible.

2.5 Trust

Researchers have proposed different definitions of trust in different disciplines (Yousafzai et al., 2003). These studies focus on social psychology, individual personality, and on organisations and institutions. The numerous ways of examining trust imply that is difficult to reach a conclusive and unifying definition of trust in the literature. Within the online

purchasing context, trust is frequently cited as a critical factor (Corbitt et al., 2003). Trust should be viewed both as a short-term or temporal solution to stimulate a consumer's willingness to purchase a product using the Internet, as well as a significant antecedent in the long term (Yousafzai et al., 2003).

Possibly one of the simplest definitions of trust is offered by Mayer et al. (1995), who define it as the anticipation by a given party that a certain obligation will be met, tied with a readiness to accept any likely damage in the operation, whether the party is able to control the other party or not. The element of trust has been further developed to perceived trustworthiness. Perceived trustworthiness is explained as the trusting attitudes or trusting beliefs of the consumer (McKnight & Chervany, 2001). This study will focus to a greater extent on the definition of trust presented by Mayer et al. (1995). Therefore, consumer trust will be treated as the various trusting beliefs and attitudes that exist in electronic booking. Trust will thus be defined as the psychological state that results in the willingness of a certain consumer to make a transaction over the Internet, and to expect that the platform on which he or she makes a payment will fulfil its obligation, if the customer can monitor or control the actions of the payment platform.

Corbitt et al. (2003) explain that trust-building falls within three dimensions: trust relating to individuals, trust relating to a certain website or online seller, or trust relating to EC. Trust within these dimensions has various impacts on a customer's adoption of online purchasing; trust in EC shows a buyer's willingness to either adopt or avoid e-booking. However, there is little evidence to support this claim in Corbitt et al.'s (2003) study, and that would establish a direct negative relationship between perceived risk and participation in e-business, or

between perceived risk and trust. Therefore, there is a need for further evidence to support this position.

2.5.1 Trust Belief and Perceived Risk Relationship

There is a close relationship between PR and trust in the traditional business context (Kim & Prabhakar, 2000; Mayer et al., 1995). This close relationship has also been identified in the development of electronic commerce (Morrison & Firmstone, 2000). Researchers reiterate that risk and trust are inseparable during decision making, and are therefore discussed simultaneously (Das & Teng, 2004; Morrison & Firmstone, 2000; Verhagen et al., 2006). It is also suggested that the greater the risk that is perceived, the greater the trust that is required (Jarvenpaa & Tractinsky, 1999). Hoffman et al. (1999) note that this common principle is also applied in numerous online purchase contexts.

Some of the initial studies on trust suggest that a party does not need to risk anything for them to gain trust. However, this position is not shared by Mayer et al. (1995), who note that although a person need not risk anything to gain trust, they still need to assume risk to get involved in an action involving trust. Based on studies by these authors on the associations between risk and trust, it is apparent that either risk is a precursor of trust, or it is borne from trust. This is mainly because risk and trust seem to be collaborating in this research. This notwithstanding, there are some authors who argue that the relationship between trust and risk is parallel in nature. In this way, these two factors are able to impact the willingness of a party to take part in a purchasing action within the electronic booking context. Kim and Prabhakar (2000) note that a cause and effect relationship is likely to exist between trust and

risk. However, this relationship is insignificant. This is consistent with the views of Das and Teng (2004), who posit that risk and trust exist in parallel, with interactive choices.

Further studies on the association between trust and perceived risk, however, show that their relationship is not parallel, but serial. In this way, trust is perceived to influence the buying intentions of the consumer, through perceived risk. Pavlou (2003), for instance, observed trust to be a function of perceived risk, and therefore not parallel to it. A similar study by Malhotra et al. (2004) reported that trusting beliefs negatively influence risk beliefs, particularly when it comes to privacy concerns of e-business among sellers, as well as in various cultural environments, such as Singapore, the United States and China. Yousafzai et al. (2003), support this position by suggesting that the level of trust is subject to the degree of perceived risk. However, the association between perceived risk and trust is quite complicated, the majority of early beliefs on trust varying with time, or with consumer experience (McKnight & Chervany, 2001; Corbitt et al., 2003).

Kim et al. (2009, 2008) combined trust and perceived risk, and verified that trust had an impact on Internet consumers' perceived risk in buying decisions. In addition, consumer trust, the consumer's sensitivity towards trust, security concerns, privacy concerns, company information and the quality of information on the website have profound effects on trust among Internet consumers.

Generally, overall perceived risk is typically viewed as being representative of the level of doubt relating to the potential effects of using e-services. According to this rationale, a consumer's level of worry or uncertainty relating to a platform may be reduced significantly when he or she is able to foresee the possibility or level of risk, subject to available data

collected through experience, when they undertake transactions through online booking. Similarly, the degree of trust in the server can be improved. Consequently, a reduced degree of perceived risk may be associated with an increase in the degree of trust belief.

2.6 Summary

This chapter started off by critically analysing current models for technology acceptance. Additionally, the concepts of perceived risk and trust belief were defined in order to explain the low technology adoption among e-bookers of hotel services in the Kingdom of Saudi Arabia. The chapter went on to employ a thorough literature review, explaining in detail the various elements identified as affecting risk perception and trust belief, as they relate to technology acceptance. The following chapter will highlight the development of the conceptual model adopted for this study. The current chapter discussed in detail the theory of perceived risk, and the impact it has on consumer decisions to accept new technology, together with performance expectancy and effort, and the role they play in consumer adoption of new technology. The next chapter will highlight the hypothesis and discuss the conceptual model.

Chapter Three Development of Conceptual Model

3.1 Introduction

The previous chapter has revealed the significance of studying the factors that facilitate the acceptance of new technology, particularly within the online setting. Based on preceding literature reviews, there has obviously been limited research focusing on adoption of e-booking among customers, especially for services marketed over the Internet. Therefore, this chapter involves the development of a conceptual model that specifies linkages among the variables of the models based on UTAUT2 and Theory of Perceived Risk with the newly introduced construct of 'Trust Belief'. The arguments for the proposed linkages are explained in detail and hypotheses are presented for testing.

3.2 Theoretical Foundation of Current Study

Although well-established theories and prior empirical research were used to establish the research hypotheses, any statements and/or conclusions about the causal relationships were based on a theoretical foundation rather than the empirical evidence of the study. The research models drew from well-established theories, aiming to focus on using online hotel booking services more. The empirical testing showed that this study effectively provides a

broader view of the professional use of online hotel booking services by examining multiple antecedents.

The UTAUT2 model (The Unified Theory of Acceptance and Use of Technology II) by Venkatesh et al. (2012) and The Theory of Risk by Jacoby and Kaplan (1972) , have been used extensively in studies on consumer's embracement of new technology, and have been employed as the theoretical basis of the hypothesis applied in the current study (see Figure 3-1). Further explanation of the models' components is presented in the following sections.

3.3 Theory of Perceived Risk

Recent studies in this regard which tend to measure perceived risk in e-business transactions, show a significant relationship between this construct and the adoption of technology (Kim et al., 2009; Luo et al., 2010; Sangle & Awasthi, 2011). However, these studies mainly focus on risks that involve transaction security or privacy risk. The theory of perceived risk featured prominently in the literature review chapter above. This section builds on the literature review and highlights the theoretical underpinnings of theory.

By virtue of the difficulty in capturing and measuring perceived risk as an objective reality, the majority of researchers in e-business study have defined and addressed perceived risk as having pertinent situational and distinct contextual parameters (Bélanger & Carter, 2008; Yousafzai et al., 2003; Teo & Liu, 2007; Herrero Crespo & Rodríguez Del Bosque Rodríguez, 2008). Within the context of hotel e-booking services, this study embraces the definition of perceived risk as presented by Featherman and Pavlou (2003), describing

perceived risk as the likelihood of loss, when pursuing a desired result when using an electronic service.

PR is a hypothetical construct used to predict and explain consumer behaviour, and can be said to be derived from the normative theory (Kollat et al., 1970). The very concept of Bauer's (1960) understanding of consumer behaviour through perceived risk has triggered multidimensional research, and different concepts and arguments have emerged. PR theory holds that in general, consequences comprise six principal dimensions from a 'loss' perspective. Cox (1967) briefly mentions performance and psychological dimensions. Other authors have further developed these two dimensions. Jacoby and Kaplan (1972) identify five dimensions: performance, financial, psychological, physical and social loss. Roselius (1971) adds time loss as the sixth risk. These six dimensions of risk capture the consumer's overall perceived risk (OPR), or overall risk (Mitchell & Boustani, 1993; Stone & Grønhaug, 1993). Overall perceived risk is used more commonly, and may refer to either a mathematically calculated measure (Barkworth et al., 2002), or a self-evaluated measure (Jacoby & Kaplan, 1972). Therefore, this research will support the element of perceived total risk as identified by Featherman and Pavlou (2003), which is added to the list of factors forecasting the adoption of e-services. However, unlike the study by these authors, the present study views overall perceived risk as dependent on individual perceived risks, being subject to how these individual perceived risks are defined and designed. This will allow us to reach a general measure, as opposed to adopting the presence of perceived risk as a second order measurement.

E-booking typically does not involve the element of physical risk. Consequently, the dimension of physical risk will not be an observed factor in this study (Featherman & Pavlou,

2003). In addition, recent studies have suggested that service risk ought to be considered, especially relating to e-business (Lopez-Nicolas & Molina-Castillo, 2008). It is, however, arguable that delivery risk and technical risks can be summarised within security risk relating to the safety of money transfer in e-booking models. Therefore, service risk will be adopted separately to facilitate the measurement of the probability of adoption of e-booking services offered by the hotel industry.

Table 3-1 Definition of Risk Facets

1.Performance risk	"The possibility of the product malfunctioning and not performing as it was designed and advertised and, therefore, failing to deliver the desired benefits." (Featherman & Pavlou, 2003:455)
2.Financial risk	"The potential monetary outlay associated with the initial purchase price, as well as the subsequent maintenance cost of the product." (Featherman & Pavlou, 2003:455)
3.Time risk	"Consumers may lose time when making a bad purchasing decision by wasting time researching and making the purchase, and learning how to use a product or service only to have to replace it if it does not perform to expectations." (Featherman & Pavlou, 2003:455)
4. Psychological risk	"Involves the possibility of negative effect on personality or self-image by purchasing products/services." (Kim et al., 2009:206)
5.Social risk	"Potential loss of status in one's social group as a result of choosing an inadequate product or service, and looking foolish or unfashionable."(Featherman & Pavlou, 2003: 455)
6.Privacy risk	"Potential loss of control over personal information, such as when information about you is used without your knowledge or permission." (Featherman & Pavlou, 2003: 455)
7.Security risk	"The risk that the system or software of hotel booking website and third parties is not stable or vulnerable to network attacks." (Pennington et al., 2003 cited in Featherman & Pavlou, 2003:455)
8.Service risk	"The probability that the firm will not offer a good service in the future." (Lopez-Nicolas & Molina-Castillo, 2008:104)

The application of the above principal dimensions of perceived risk is common within the traditional purchase context (see Table 3-2). However, extension and modification of these dimensions occurs in non-store booking situations, such as online buying, which require elimination of the physical dimension and additional dimensions (see Table 3-1 & Figure 3-1). Discussion elaborating on this is presented below.

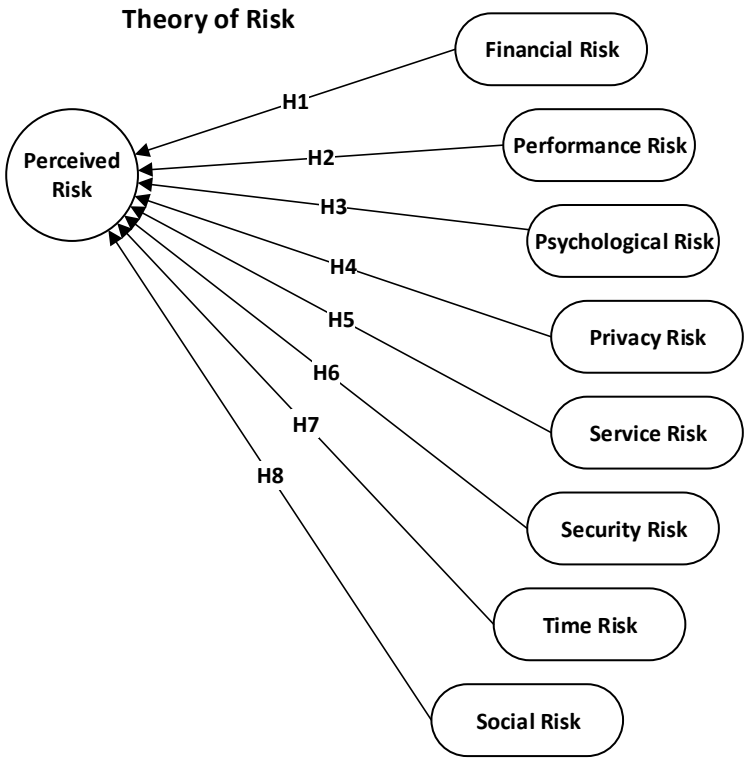

Figure 3-1 Conceptual Framework of Risk Dimensions

3.3.1 Financial Risk

This relates to concerns about financial loss that can arise as a result of poor or bad purchases (Featherman & Pavlou, 2003). This risk is also referred to as economic risk (Lim, 2003), or as money loss in other instances (Roselius, 1971). For instance, when considering the trial of

a new brand, if the consumer is worried that the actual product performance will fall short of his or her expected value, (i.e. when the actual performance is below what was expected), then the buyer is likely to perceive a monetary loss (Jacoby & Kaplan, 1972). Possible monetary loss may also be a result of improper function of a product, forcing the consumer to spend more money on repair or product replacement (Roselius, 1971). In both instances, financial loss is a result of perceived performance loss.

(H1) Financial Risk is positively related to Perceived Risk

3.3.2 Performance Risk

Performance risk refers to the buyer's fear that a purchased good or service will fail to work as well as expected, or that it will fail to perform as well as other brands (Featherman & Pavlou, 2003). This risk is also referred to as function loss, and relates to production performance or function, or usefulness of the product (Lim, 2003). If the consumer is worried that a product is likely to perform for only a short period, then the consumer has perceived performance risk. The degree of uncertainty is directly related to the loss perceived, such that the greater the uncertainty about the performance of a product, the greater the risk that the consumer perceives. Featherman and Pavlou (2003) further argue that product features can also affect the customer's perception of performance risk. For instance, if the product is technologically complex in terms of handling or usage, then the consumer will perceive risk. Mitchell (1998) adds that it is possible to link this perceived loss to the seller, or to the shop. However, it is expected that financial risk will be highly correlated with performance risk (Kaplan et al., 1974: 391)

(H2) Performance Risk is positively related to Perceived Risk

3.3.3 Psychological Risk

Psychological loss relates to the extent of risk that a given brand or product will result in negative consequences on a consumer's self-image (Jacoby & Kaplan, 1972). For instance, the consumer will experience uncertainty about the possibility that a product will damage his or her self-image in the eyes of reference group members (Mitchell, 1992). If the consumer has a poor purchase outcome, he or she is likely to feel disappointed or frustrated.

(H3) Psychological Risk is positively related to Perceived Risk

3.3.4 Privacy Risk

Notwithstanding the proliferation of technology, the most critical dimension relating to consumer perceived risk has shifted. According to Dinev and Hart (2006) and Featherman and Pavlou (2003), a newly discovered risk dimension, related to privacy concern, is, for the most part, primary in facilitating the understanding of perceived risk perception (see definition Table 3-1). A previous study by Cunningham et al. (2005) failed to consider privacy risk in e-banking.

Privacy concerns features prominently in discussion in online buying literature. One point of view is that privacy is a significant obstacle to e-booking. Huang et al. (2004) suggest that buyers realise that their personal information – age, address, education, telephone number, income, spending behaviour, purchasing habits, etc. are crucial to marketers. According to these researchers, Internet users, as well as non-Internet users, are generally unwilling to supply their personal information. Their primary concern is the use of this personal information without their consent, or its abuse. Moreover, there are distinct differences in the

way marketers and consumers view personal data. Dinev and Hart (2006) note that marketers tend to view personal data as an economic exchange, while consumers view their personal data very differently. Hoffman et al. (1999) outline how consumers find it crucial to be able to control access to their personal information. Based on this research, privacy concerns over online purchases involve two broad dimensions, as below:

Environmental control – Environmental control mainly relates to the actions taken by online sellers or the vendor website within a transaction. This control significantly indicates the degree of safety or security of an e-booking system. A good example of such actions is reflecting a buyer's credit information.

Secondary user of information controls – This dimension relates to the handling of personal information by third parties. Third parties, unknown to the customers, are usually involved in the transaction. Consumers therefore worry that these third parties might manipulate their personal information without their knowledge or consent. For example, consumers are concerned that the seller might sell their data to third parties for various purposes.

Bhatnagar and Ghose (2004) explain that one of the potential consequences that arises in online buying is that people discuss media reports relating to data abuse over the Internet or privacy issues, which may be indicative of an increased concern about the security of online transactions. Consumers are often afraid that third parties, through hacking, may compromise their accounts, or they fear the threat of losing control over their personal data.

The decision to limit Internet usage is arguably the worst scenario for marketers. This highlights that the handling of personal information is crucial to customers, and raises the issue of security. Dinev and Hart (2006) argued that the online market has experienced a

rapid increase in technologies introduced to enhance transaction security. Such technologies include encryption technology, certificates and authentication, digital signatures, secure debit and credit card payment systems, and the use of digital currency such as e-purse. This idea of applying technology in payments is not a new phenomenon. Online payments by credit or debit card are like an in-store booking payment, referred to as Electronic Fund Transfer at Point of Sale (EFTPoS). Both methods require the buyer to provide their card details to third parties.

Supplying personal information over the Internet poses adverse effects on both existing and potential Internet users (Liebermann & Stashevsky, 2002). Risk perception within the context of personal information can be too huge to manage. Consequently, some customers are not ready for, or are unwilling to use new channels of buying. This indicates the need to address the consumer's perception in relation to security.

(H4) Privacy Risk is positively related to Perceived Risk

3.3.5 Service Risk

Services risk can be defined as "the probability that the firm will not offer a good service in the future." (Lopez-Nicolas & Molina-Castillo, 2008: 104). However, e-booking does not normally include physical risk. As a result, the element of physical risk will be omitted as a primary factor within this review. Instead, recent studies have suggested that service risk be considered, especially relating to e-business (Lopez-Nicolas & Molina-Castillo, 2008). Service risk will be adopted separately to facilitate the measurement of probability of adoption of e-booking services offered by the hotel industry.

(H5) Service Risk is positively related to Perceived Risk

3.3.6 Security Risk

Security risk can be defined as “the risk that the system or software of hotel booking website and third parties is not stable or vulnerable to network attacks." (Pennington et al., 2003 cited in Featherman & Pavlou 2003:455).

It can be argued that the function or level of reliability of the specific network over which cash transactions occur presents the main critical fear for consumers. The transmission of financial data over the Internet is associated with the risk of interception by unauthorised parties, which could result in financial loss. Therefore, security risks are critical factors in e-booking, although they might correlate to financial risk. Forsythe and Shi (2003) argue that security, privacy and monetary loss are three critical factors that may prevent online consumers from making online purchases. It is, however, arguable that delivery risk and technical risks can be summarised within security risk related to the safety of money transfer in the e-booking context. Therefore, these two risks will be added to security risk, to facilitate the measurement of the probability of adoption of e-booking services offered by the hotel industry.

Alternatively, Cunningham et al. (2005) posit that the significance of the concept of security risk could be substituted by economic risk and privacy risk in the later stages of the e-service. However, in this study we must be aware that delivery and technical risk are included in security risk.

In later stages, the significance of security risks was replaced by financial risk and privacy risk. It is worth noting that these two are at an increased risk of exposure, especially considering the increased usage of technology to ensure safety.

(H6) Security Risk is positively related to Perceived Risk

3.3.7 Time Risk

Time loss is related to the likelihood that a bad or failed purchase will result in a waste of time (Roselius, 1971). This mainly applies to persons who spend the bulk of their time online, because these consumers are more concerned about the reliability and stability of their e-booking environments, as opposed to time. Time risk includes the time spent when searching for product information. Featherman and Pavlou (2003) argue that in addition to time loss, the loss of effort or convenience also falls under time risk.

Furthermore, time-conscious consumers will tend to establish protection against possible loss of functional risk and time, because their choice for e-booking is based on the merits of convenience and time savings (Featherman & Pavlou, 2003; Bellman et al., 1999).

(H7) Time Risk is positively related to Perceived Risk

3.3.8 Social Risk

Social loss is a reflection of the consumer's concern about how other people will evaluate his or her purchase (Lim, 2003). The evaluation of other people, such as friends and family with respect to a purchase decision can influence the consumer/buyer. For instance, social embarrassment may dissuade a buyer from purchasing a product or brand. If a consumer is

worried that his or her purchase will result in negative social impacts from friends and family, then the consumer at this point perceives social risk. The buyer regards some products or services that are closely linked to a consumer's social esteem or self-image, such as a haircut or clothing, as attracting a greater possibility of social risk. Social risk plays a role within the context of e-booking, but the effects of this type of risk tend to decrease significantly due to the digressive marginal utility. This mean the more consumers book online; the less risk is perceived. Table 3-2 below shows that only one study found a significant relationship between social risk and perceived risk.

(H8) Social Risk is positively related to Perceived Risk

Table 3-2 Comparison of Perceived Risk Facets- Key Studies Output

Relationship	**Reference**	**Reference**	**Reference**	**Positive/ negative support**
Performance risk on perceived risk	(Q. Yang et al., 2015)	(Featherman & Pavlou, 2003)	(Martins et al., 2014)	Positive significant relationship
Financial risk on perceived risk	(Q. Yang et al., 2015)	(Martins et al., 2014)	(Featherman & Pavlou, 2003)	Positive significant relationship
Time risk on perceived risk	(Featherman & Pavlou, 2003)	(Q. Yang et al., 2015)	(Martins et al., 2014)	Positive significant relationship
Psychological risk on perceived risk	(Featherman & Pavlou, 2003)	(Martins et al., 2014)	(Yang et al., 2015)	Positive significant relationship but lowest relationship
Social risk on perceived risk	(Featherman & Pavlou, 2003)	(Q. Yang et al., 2015)		Nonsignificant relationship
Social risk on perceived risk	(Martins et al., 2014)			Positive significant relationship but was lowest among other relationships
Privacy risk on perceived risk	(Featherman & Pavlou, 2003)	(Martins et al., 2014)	(Yang et al., 2015)	Positive significant relationship
Overall risk on perceived risk	(Martins et al., 2014)	(Featherman & Pavlou, 2003)	(Q. Yang et al., 2015)	Positive significant relationship
Perceived risk on performance expectancy (Perceived usefulness)	(Q. Yang et al., 2015)	(Martins et al., 2014)	(Featherman & Pavlou, 2003)	Negative significant relationship
Effort expectancy (Ease of use) on	(Q. Yang et al., 2015)	(Martins et al.,	(Featherman & Pavlou, 2003)	Negative significant relationship

perceived risk		2014)		
Perceived risk on behavioural intention	(Q. Yang et al., 2015)	(Martins et al., 2014)	(Featherman & Pavlou, 2003)	Negative significant relationship

3.4 Perceived Risk on Performance Expectancy

In the consumer context, Performance Expectancy (PE) is "the degree to which using a technology will provide benefits to consumers in performing certain activities" (Venkatesh et al., 2012:159). Performance expectancy is derived from different IS models: Perceived Usefulness (Davis, 1989; Davis et al., 1989), Job-fit (Thompson et al., 1991), Extrinsic Motivation (Davis et al., 1992) Outcome Expectancy (Compeau & Higgins, 1995; Compeau & Sid, 1999) and Relative Advantage (Moore & Benbasat, 1991). These studies found that PE strongly predicts Behavioural Intentions regarding the adoption and use of technology (see Table 3-3).

Table 3-3 Comparison of Performance Expectancy on Behavioural Intention

Relationship	**Reference**	**Reference**	**Reference**	**Positive/negative Support**
Performance expectancy on behavioural intention	(Al-Gahtani et al., 2007)	(Chiu &Wang, 2008)	(Luo et al.,2010)	Significant positive relationship
Performance expectancy on behavioural intention	(Pai & Tu, 2011)			Non-significant relationship

Morris and Venkatesh (2000) argue that young men are influenced more than other demographic groups. Dong and Zhang (2011), Riquelme and Rios (2010) and Wang et al. (2009) found that gender and age play an important role in moderating the relationship between PE and BI. On the other hand, some literature offers a contradictory argument on the role of gender and age in technology acceptance (Bigne et al., 2005; Faqih & Jaradat, 2015; Sam & Hock, 2011; Serenko et al., 2006; Zhou et al., 2007). However, insufficient research has been conducted to date to address the impact of gender differences on the adoption of

hotel e-booking service technology and e-business in general. In addition, the inconsistent nature of the findings reported strongly suggests the need for further investigation and improvement to understand the impact of gender and age on the adoption of hotel e-booking services, particularly in developing countries. Furthermore, this study contributes a wider understanding of how men and women perceive the risk of e-business and other key behaviours of e-business transaction processes in a developing country.

It is suggested that age and gender moderate the relationship between performance expectancy and behavioural intention. It is possible to argue that the root construct includes some variables applicable to the original organizational context that are not relevant to the consumer context. However, performance expectancy has proved to be statistically significant in determining behavioural intention, and empirical evidence from previous studies confirms that age and gender are important moderators.

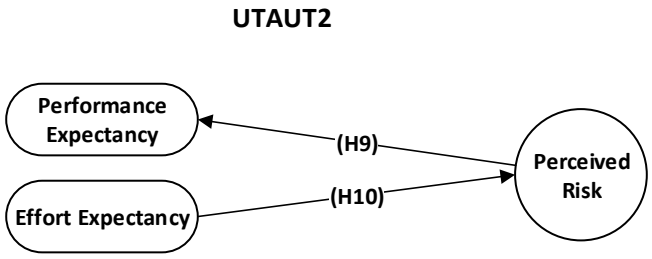

Figure 3-2 Conceptual Framework of UTAUT and Perceived Risk

In UTAUT2, effort expectancy and performance expectancy have played a similar functional role to ease of use and perceived usefulness (see Figure 3-2). It is therefore reasonable to assume that persons who view e-booking as useful will also have a lower perception of risk. It is important to inculcate a measurement of perceived risk on performance expectancy, due to the fact that consumers will either consciously or unconsciously perceive a level of risk

when assessing a product or service for buying or embracing. Igbaria (1993) found that the adoption of Information Systems shows correlation with anxiety and discomfort for consumers and employees. Use of the Internet as a mediator between businesses and consumers also adds uncertainties and potential loss, due to its perceived insecure nature. The combination of probability of loss, and the subsequent cost of the loss make up perceived risk, which has been shown to be associated with product evaluation (e.g. performance expectancy) and intention to use technology (Dowling & Staelin, 1994).

The following hypothesis can be proposed:

(H9) Perceived Risk is negatively related to Performance Expectancy

3.5 Effort Expectancy on Perceived Risk

In the consumer context, effort expectancy is defined as "the degree of ease associated with consumers' use of technology" (Venkatesh et al., 2003: 450). Three related studies by Pai and Tu (2011), Gupta et al. (2008) and Al-Gahtani et al. (2007) show a significant positive relationship between effort expectancy and behavioural intentions (see Table 3-4). Venkatesh et al. (2003) found that effort expectancy has a significant impact, particularly on women at the early stage of Internet experience with new technology. However, the difficulty in using a system decreases with increased amounts of experience (Venkatesh et al., 2003). In other words, the more a woman learns about a piece of technology, the less effort she will need to make**. A** more recent study found no significant relationship between effort expectancy and perceived risk (Chang et al., 2016), suggesting that effort expectancy has no impact on perceived risk.

Table 3-4 Comparison of Effort Expectancy on Behavioural Intention

Relationship	Reference	Reference	Reference	Positive/negative Support
Effort expectancy on behavioural intention	(Pai & Tu, 2011)	(Gupta et al., 2008) moderated by gender	(Al-Gahtani et al., 2007)	Significant positive relationship
Effort expectancy on behavioural intention	(Al-Gahtani et al., 2007) moderated by age and experience	(Yang, 2010)		Nonsignificant relationship

In the context of risk, a prospective customer who perceives a product or service as difficult to understand within a short period of time will also tend to perceive it as risky to purchase and adopt (Moore & Benbasat, 1991). The difficulty of using the service that potential customers may face during the adoption of new technology can increase the customer's expectation of risk. Therefore, effort expectancy can be identified as an important factor for reducing risk, similar to other factors (Roselius, 1971). It seems likely that only those consumers who perceive that using hotel e-booking services will not require much effort also tend to perceive it as a low risk service.

The following hypothesis can be proposed:

(H10) Effort Expectancy is negatively related to Perceived Risk

3.6 Performance Expectancy & Effort Expectancy on Trust

Several studies on Perceived Ease of Use (PEOU) and Perceived Usefulness (PU) in relation to online payments and technology adoption have established the existence of a positive relationship between PEOU, PU, and trust. For instance, a study by Gefen et al. (2000) revealed that perceived performance expectancy and effort expectancy had a positive relationship with trust. In this light, the more effort a customer has had to make, the less trust they have in using technology, observing, or even controlling their online transaction procedures. A growing body of research, including the works of Malhotra et al. (2004) and Pennington et al. (2003) has highlighted effort expectancy as a precursor of trusting belief in the context of electronic booking. A recent study concluded that there is a significant relationship between effort expectancy and trust (Chang et al., 2017).

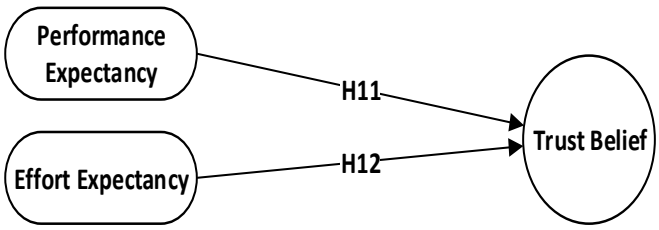

Figure 3-3 Conceptual Framework UTAUT and Trust Belief

Related studies by researchers Bélanger and Carter (2008) viewed trust as a component of perceived risk, while Teo and Liu (2007) and Yousafzai et al. (2003) regarded it as a function of usefulness and ease of use (see Figure 3-3). Based on these studies, it would be prudent to view effort expectancy, and risk and performance expectancy as founding principles of trust which culminate in the development of positive attitudes and trust towards e-services, and

which lead to behavioural intention in online payments (Li et al., 2008; Pavlou, 2003). Furthermore, these three principles are critical in the evaluation of a given means of payment, once the customer has made a choice among the wide variety of payment channels in an expanding e-business context. Therefore, this study also proposes:

(H11) Performance Expectancy is positively related to Trust Belief, and (H12) Effort Expectancy is positively related to Trust Belief

3.7 Social Influence on Trust

Social Influence (SI) is "the extent to which consumers perceive that important others (e.g. family and friends) believe they should use a particular technology" (Venkatesh et al., 2003: 451). The root constructs of social influence are subjective norms, social factors and image. Social factors influence young individuals, as they engage more with technology during the day. This variable measures the influence of peers on the use of Internet technology in consumer contexts. Social influence appears to be significant only in a mandatory context (Venkatesh et al., 2003). However, social influence was found to be a significant and important factor in determining behavioural intention in the voluntary consumer context (Venkatesh et al., 2012).

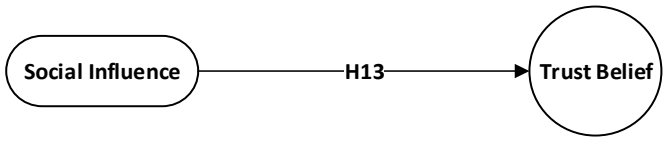

Figure 3-4 Conceptual Framework of Social Influence on Trust Belief

Kelman (1958) suggested that social influence has an indirect impact on a consumer's intentions (see Figure 3-4). The author refers to this as internalization. As reiterated by Bagozzi (2007), the impact that social reference groups have on a customer's intention is taken to be the result of both internalization effects and compliance effects. Here, internalization is representative of the process through which an individual adopts the beliefs of a significant referent and integrates these beliefs into his own belief model. Therefore, social influence can directly sway the beliefs and attitudes held by a consumer. These norms can also indirectly sway their intentions. For instance, some researchers have suggested that with time, a customer may eventually perceive that a system is useful, if the system is perceived as such by significant referents (Venkatesh & Davis, 2000). Consequently, they will develop an intention to use it. Subsequent studies have also established a direct relationship between trusting beliefs, attitudes and social influence within an information systems context (Li et al., 2006). According to Li et al., in the absence of sufficient knowledge or information about a given system, people will put their trust in the opinions of significant referents. As a result, customers may inadvertently incorporate these borrowed beliefs as their own. These become their own trusting beliefs, which are then mirrored in their confidence towards a system. However, a more recent study found that moderator effect (gender) plays a major role in distinguishing between male and female in terms of intention to use technology (Faqih, 2016). Faqih (2016) found that women are more likely to adopt new technology than the men.

Therefore, this study also proposes:

(H13) Social Influence is positively related to Trust Belief

3.8 Behavioural Intention

Behavioural intention is defined as "a measure of the strength of one's intention to perform a specific behaviour" (Ajzen & Fishbein, 1975: 288). Performance expectancy, effect expectancy, social influence, facilitating conditions, hedonic motivation, price value and habit measure the Behavioural Intention in UTAUT2.

Researchers have challenged the role of behavioural intention and theoretically adopted a new construct, perceived risk and trust belief, as a key driver of behavioural intention. However, integrating perceived risk and trust belief into UTAUT2 does not change the role of BI. A body of work has examined the role of perceived risk and trust belief in different positions, these studies concluding that perceived risk has a direct effect on behavioural intention (Nicolaou & McKnight, 2006; Chang & Chen, 2008; Bonsón Ponte et al., 2015). However, more recent studies concluded that there is no direct relationship between perceived risk and behavioural intention (Chang et al., 2017; Moodley & Govender, 2016; Yin et al., 2016; Sohn et al., 2016; Faqih, 2016). The current study supports the argument that perceived risk is indirectly related to BI through trust belief (see Section 3.6)[2].

Behavioural intention, in the context of hotel e-booking services, can be defined as 'the person's subjective possibility that he or she will use hotel e-booking services'; BI measures the consumer's willingness to participate in hotel e-booking services. Three words will be

[2] Clicking on URLs link (Ctrl+ Right Click) moves to exact section on this document.

used to describe consumers' willingness to use the website: intention, attempt and planning. These items were developed from Venkatesh et al.'s (2012) scale; however, some changes were made to the working of the items so they fitted the context of hotel e-booking services, for example, 'I intend to continue using hotel-booking websites in the future.'

The dependent variable 'behavioural intention' is used in research to measure different aspects of the acceptance of technology. Behavioural intention is thought to be a significant predictor of technology use. However, as this study investigates the acceptance of hotel e-booking services in a voluntary usage context, the moderator of voluntariness of use in UTAUT is omitted.

3.9 Perceived Risk on Behavioural Intention through Trust Belief

In the initial stages of electronic booking, consumers might not be able to trust the introduced forms of payment without protection obtained through upgraded technology or regulations. A few examples of this include internet identification protocols, and 'public key' encryptions. Consequently, institutional based mechanisms to increase trusting behaviour are necessary to aid success of the services. Consumers will generally have a higher degree of trust in servers when they first visit the electronic servers. From then onwards, they may feel able to take risks when transacting. It is therefore evident that system dependent risks introduce major critical elements, which encourage the formation of initial trust in the early stages of electronic commerce. However, this may differ from cultivating initial trust, to affirming and sustaining trust over time. It can also be argued that perceived risk may affect the trusting

behaviours of consumers, particularly when utilising online modes of payment during the early stages. As emphasized by Jarvenpaa et al. (2000), transactional risk can become more significant in relation to trust beliefs. Corbitt et al. (2003), moreover, argued that the experiences of web users will influence the level of perceived trust positively, while impacting the level of perceived risk negatively. This relationship therefore means that perceived risk is a precursor of trust, particularly in the mature stages of electronic commerce. In practical terms, the initial trust of a consumer in institutions may mitigate the perceived cumulative perceived risk. It may also increase trusting belief, which will stimulate the use of electronic commerce on a more regular basis.

Research by Liu and Wei (2003) concludes that perceived risk is a critical precursor of consumers' readiness and intention to buy online. Featherman and Pavlou (2003) state that customers' lack of awareness of electronic service risk significantly reduces their attitudes and intentions over adopting online transactions. A parallel study by Park et al. (2005) & Apiraksattayakul et al. (2017) on apparel purchases supports the existence of an inverse relationship between the degree of perceived risk and a customer's intention to buy online. For instance, if there is a high degree of perceived risk, the customer will be dissuaded from making the purchase, and vice versa. Additionally, studies by Lopez-Nicolas and Molina-Castillo (2008) reveal that an individual's perception of risk which corresponded with various Customer Knowledge Management (CKM) tools negatively impacted consumer intentions. However, more recent studies concluded that there is no direct relationship between perceived risk and behavioural intention.

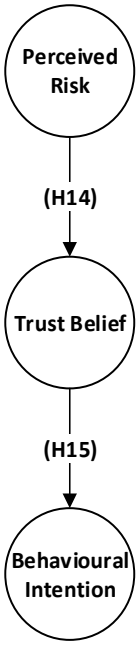

Figure 3-5 Conceptual Framework of Perceived Risk on Behavioural Intention through Trust Belief

Regarding the relationship between perceived risk and trust believe. It is thus clear that the development of trusting beliefs may be subject to the degree of perceived risk, as it relates to the transaction itself, and the transitionary environment. Yousafzai et al. (2003) suggested a model for trust in e-business, which was structured around security, privacy and perceived competence, as the antecedents of trust. This model can be viewed in a twofold sense, either as part of the trust base as adopted by Li et al. (2008), or as the Internet context, as suggested by McKnight and Chervany (2001). Kim and Benbasat (2006) also viewed risk focusing on security, customer service and product price, as part of trust linked factors. According to them, the lower these factors, the more trust there is in use of technology. This is supported by Dinev and Hart (2006) & Chang et al. (2017), who provided evidence indicating that perceived risk had negative effects on the level of trust in electronic transactions (see Figure 3-5). Consequently, any aspects having the likelihood of causing loss to consumers fall under resources of risk.

3.9.1 Perceived Risk on Trust

Trust in this regard is perceived as a function of the degree of risk, and this is especially true for electronic transactions (Aiken, 2006). One of the unique features of electronic booking is the existence of a physical separation between the customer and his or her booking website. In electronic transactions, the circumstances are also difficult to predict and the relationships more complex to monitor. This is because of the possibility of any number of unforeseen circumstances, such as the counterfeiting of websites, the forging of online identities and the falsification of electronic documents (Ba, 2001). Furthermore, the absence of sufficient regulatory control may also increase customers' fears that their personal information could be accessed without their consent or knowledge. These factors play a central role in hiking up the customer's risk perception, and ultimately undermines their level of trust towards the hotel e-booking service platform.

The impersonal and distant nature of the online environment, coupled with the inherent uncertainty of making use of a global online infrastructure, which is essentially open, can result in various risks which are either the result of system dependent uncertainties, such as security shortcomings in the information communication technical systems, or of functional defects, or are caused by transaction specific uncertainties such as the conduct of other actors. Systems dependent uncertainties mainly influence the web retailer or the consumer and feature external (exogenous) or environmental uncertainty. According to Hirshleifer and Riley (1979), the concept of exogenous or external uncertainty refers to uncertainties of the world. Within the context of e-booking hotel services, the aspect of external or exogenous uncertainty relates to the potential sources of error in the technology, the existence of security gaps, and to risks, which are inherent in the technology, and as such cannot be avoided

through a contract or agreement. While banks usually have profound influence on the security of the various transaction media through such avenues as encryption, firewalls and authentication protocols, the possibility of the existing technology to be compromised by a third party still exists. As previously highlighted, some of the more common system dependent uncertainties concern theft of credit card information, theft of personal information through hacking and the breach of private information.

To be more adaptive and responsive to these system dependent uncertainties, it is imperative that hotel booking services place more emphasis on the formation of institution-based trust. Within this set-up, there need to be formal mechanisms in place to provide trust which is not based on the history of exchange or on personal characteristics, but rather on a set of other features. For example, according to research by Cavusoglu et al. (2009), hotel e-booking developers can have a profound effect in influencing this institutionally-based trust, which can be achieved through the installation of firewalls, the utilisation of authentication mechanisms, the facilitation of encrypted transactions and ensuring disclosures and privacy seals. Several other scholars have investigated the effectiveness of other avenues, such as public key encryption infrastructure and the effectiveness of third party trust certification bodies and the role they play in ensuring transactional security (Lopez-Nicolas & Molina-Castillo, 2008). In their study, the authors observe that these are central factors in building consumer trust in electronic money transfers. It can therefore be proposed that system dependent uncertainty is influenced to a large degree by the provider's own actions aimed at reducing concerns relating to infrastructure and increasing trust in Internet hotel-booking services.

Yousafzai et al. (2003) argue that in this regard, transaction specific uncertainty can be observed as a form of endogenous or internal market uncertainty which arises from the decisions among economic actors and lack of symmetry in the distribution of information between the partners involved in the transactions. Within the context of Internet hotel booking, these market uncertainties may crop up because of a hotel's stance, which is oriented towards opportunistic behaviour and enhanced by the impersonal and distant nature of the Internet booking services of the hotel industry, as well as the inability of the sector to effectively monitor all transactions. A hotel can behave in an opportunistic manner through leaking private information, participating in fraud, product or service misrepresentation, the adoption of misleading advertisements and the falsification of identities. There is a wide body of research dedicated towards reinforcing the role of trust in reducing risk. The association of trust and the reduction of risk in buying from a store was investigated by Jarvenpaa et al. (2000), in an extension of inter-organisational literature on consumer behaviour.

The following hypotheses can be proposed:

(H14) Perceived Risk is negatively related to Trust Belief, and (H15) Trust Belief mediates the negative relationship of Perceived Risk toward Behavioural Intention

3.10 Retested Relationships

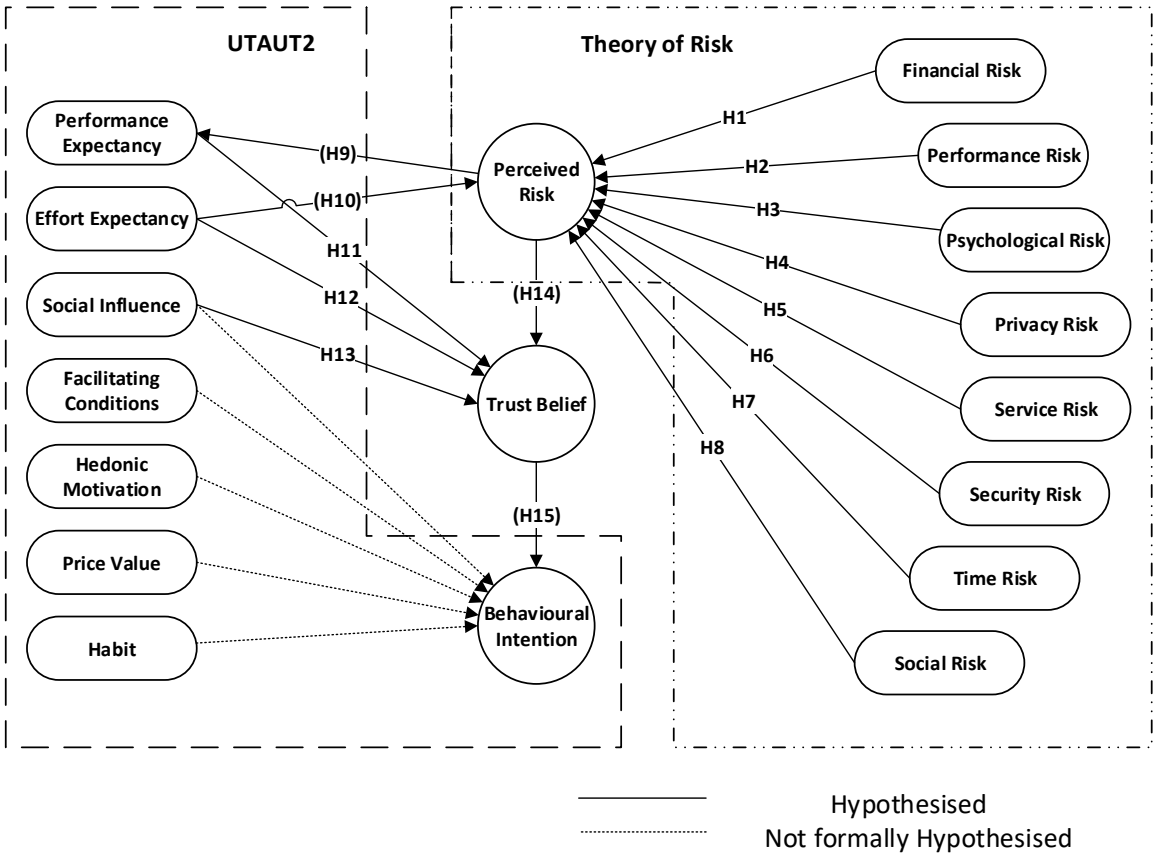

Figure 3-6 The Complete Model Conceptual Framework

In line with the extant literature, this study merely re-tests the following relationships in the current context of study. The significance of these relationships has been approved in vast numbers of previous studies (e.g. AbuShanab & Pearson, 2007; Chiu & Wang, 2008; Escobar-Rodríguez & Carvajal-Trujillo, 2014; Im et al., 2011; San Martín et al., 2012; Gupta

et al., 2018). Therefore, testing these relationships favours increasing the explanation of the R^2 in this study.

3.10.1 Facilitating Conditions

Facilitating conditions refers to 'the extent of availability of technical support for using the new technology' (Venkatesh et al., 2003: 453). In the organizational context, if the two core constructs (performance expectancy and effort expectancy) are present in the model, the facilitating conditions are strongly significant only for use behaviour (see Table 3-5). However, recent studies, conducted in developing countries Malaysia and India, found no significant relationship between facilitating condition and behavioural intention (Gupta et al., 2018; Nawi et al., 2017).

Table 3-5 Comparison of Facilitating Condition on Behavioural Intention & Actual Use

Relationship	**Reference**	**Reference**	**Reference**	**Positive/negative Support**
Facilitating condition on behavioural intention	(Yang, 2010)			Significant positive relationship
Facilitating condition on behavioural intention	(Chiu & Wang, 2008)			Non-significant relationship
Facilitating condition on use	(Al-Gahtani et al., 2007) without moderators	(Gupta et al., 2008)	(Neufeld et al., 2007)	Significant positive relationship
Facilitating condition on use	(Al-Gahtani et al., 2007) moderated by age			Non-significant relationship

In a consumer context, facilitating conditions is significant in determining both behavioural intention and use behaviour (Venkatesh et al., 2012). The argument is that consumers seek information to help them to understand the process of obtaining a service or product before and after purchasing. Facilitating Conditions present a critical consumer issue when it comes to booking hotel services over the web. The construct of Facilitating Conditions is associated with responses from service provider if customers encounter problems or have questions. These include assistance on product or service information, or whether the website can provide swift services. FC can be referred to as the readiness to assist customers and quantified based on the time taken for the services provider to respond to the customer's query. To enhance Facilitating Conditions, some authors recommend employing feedback mechanisms and functionalities, and allowing customers access to an FAQ page or PAQ (previously asked questions), to improve their user experience. These initiatives offer customers greater control over the e-booking process than previously and enhance the quality and amount of attention diverted to customer services. For example, if a less experienced customer of hotel website encountered a problem in how to use the product, he or she would be likely to navigate through the website for a tutorial to find a solution. Failing to provide such a service would have a negative impact on the intention to use the product (use behaviour).

3.10.2 Habit

Scholars have defined habit in two different ways. Limayem et al., (2007) described it as an automatic reaction towards a situation, while others (Kim et al., 2005) viewed it as a prior behaviour. There are studies (Davis & Venkatesh, 2004; Kim & Malhotra, 2005; Limayem et

al., 2007) which have concluded that habit has a direct effect on technology use, but which challenged the role of behavioural intention. Habit has a direct effect on technology use and/or weakens the relationship between behavioural intention and technology use (Venkatesh et al., 2012).

Table 3-6 Comparison of Habit on Behavioural Intention & Actual Use

Relationship	Reference	Reference	Positive/negative Support
Habit on actual use	(Vance Wilson et al., 2010)	(Escobar-Rodríguez & Carvajal-Trujillo, 2014)	Positive significant relationship
Habit on behavioural intention	(Vance Wilson et al., 2010)	(Escobar-Rodríguez & Carvajal-Trujillo, 2014)	Positive Significant relationship

Habit, in the current context, can be defined as 'an automatic reaction toward hotel e-booking services'. Three words or phrases can describe habit: 'addicted', 'I must use', and 'become natural to use'. These words and phrases help to indicate the relationship between habit and the intention to use hotel e-booking services. Items have been designed to address whether there are relationships between habits in using hotel-booking websites.

3.10.3 Hedonic Motivation

This refers to "fun or pleasure derived from using a technology" (Venkatesh et al., 2012: 161). Studies (Heijden, 2004; Brown & Venkatesh, 2005; Holbrook & Hirschman, 1982) have found various constructs related to hedonic motivation, such as 'Pleasure' and 'Playfulness' to be very important in determining behavioural intention regarding technology and actual use.

Zhang (2012) in a study on mobile application use suggests that if a mobile app brings greater entertainment value, consumers will have a greater acceptance intention. Baptista and Oliveira (2015) found hedonic motivation to be statistically significant in explaining behavioural intention (see Table 3-7).

In the context of hotel e-booking services, hedonic motivation can be defined as "fun or pleasure derived from using hotel e-booking services". Three terminologies that can describe the construct are 'fun', 'enjoyable' and 'entertaining'. Hedonic motivation, in a consumer context, has been found to be an essential determinant of technology acceptance and use (Brown & Venkatesh, 2005; Childers et al., 2001). A straightforward statement gives a clear indication of whether the customer enjoys using the website or not, such as 'I enjoy using a hotel-booking website', and to what extent he/she agrees with the statement.

Table 3-7 Comparison of Hedonic Motivation on Behavioural Intention

Relationship	Reference	Reference	Reference	Positive/negative Support
Hedonic on behavioural intention	(Sledgianowski & Kulviwat, 2009)	(Heijden, 2004)	(Yang, 2010)	Positive significant relationship

3.10.4 Price Value

Price value, in the current context, can be defined as 'the influence of price value on the intention to use hotel e-booking services'.

This study uses the construct of price value as the costs that consumers incur when they use a website to rent a room using any hotel e-booking service, including the expense of Internet connection. Hotel e-booking services enable consumers to rent accommodation directly from

computer desktops, laptops, smartphones and tablets by searching, comparing and examining the prices offered by a wide variety of hotels.

In early studies, price was found to have directly influenced perceived value; therefore, the higher the increase in price, the lower the perceived value of a product (Dodds et al., 1991; Wang, 2012; Zeithaml, 1988).Wang and Wang (2010) argued that the price offered by online services providers is not enough to encourage the consumer to participate in a transaction; the price of Internet connection also influences the perception of value. Therefore, consumers might correlate the Internet service fee with the price of traditional methods of booking, such as the cost of a ‘phone call, or driving to a travel agency.

Although the construct is not applicable to some studies of online service technologies, such as free e-clouds services (Lian, 2015), it was found to be a very important predictor in online travel services (Rodríguez et al., 2014). Law and Chung (2003) and Liang and Law (2003) believe that price is a key factor for users when they rent a hotel room on the Internet. Venkatesh et al. (2012) suggest that price value influences behavioural intention, and that age and gender moderate this relationship. They draw this conclusion from theories about social roles, which propose differentiation among men and women, young and old, in the way they perceive price value. They found that men tend to be more independent, competitive, and make decisions based on selective information and heuristics. On the other hand, women are interdependent, cooperative and consider more details. Therefore, women are likely to pay more attention to the prices of products or services, and to be more cost conscious than men are. Therefore, it is expected that the price value of an e-booking will have a significant impact on the attention and use of the website**.**

3.11 Demographic Moderators

Studies have revealed that variables related to consumer demographics are useful in understanding consumer behaviour. As previously observed, more attention has been directed towards situations associated with perceived risk, as opposed to consumers and perceived risk (Conchar et al., 2004). However, there is some evidence indicating that perceived risk varies according to major demographic variables such as social class, age, level of education, gender and income (Barkworth et al., 2002; Dowling, 1986; Mitchell, 1999). Below is a review of the relevant literature, and the major findings from past studies.

There are several common areas when conducting research on consumers' demographic variables in order to identify the relationship between perceived risk and personality traits. Conchar et al. (2004) observes that the application of risk aversion is predominant in finance, economics and in decision science studies. Risk aversion has its roots in the theory of Subjective Expected Utility (SEU), which in turn extends to Prospect Theory (Kahneman & Tversky, 1979). SEU posits that consumers will form their own expected utility subjectively, and will seek to maximize the expected utility (Conchar et al., 2004). The fundamental assumptions about Subjective Expected Utility are outlined below.

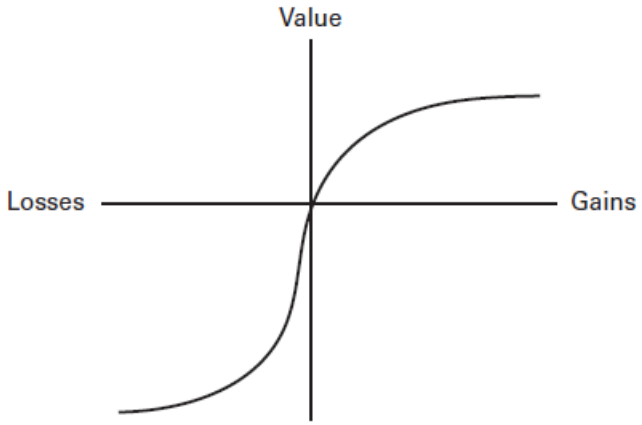

Figure 3-7 Prospect Theory Value Function. (Source: Kahneman and Tversky, 1979)

In SEU, values are changeable, subject to the context (see Figure 3-2). Even when dealing with the same product, people may conceive possible outcomes differently. Additionally, consumers' reference points may change with time, such that they have different outcome sets for assessment. Because of the above, people's evaluation of outcome probability will thus differ.

Researchers, however, present divergent opinions about SEU. One of the inconsistencies identified is whether consumers can specify the objective likelihood of an event occurring within a given context. If they can do this, then it could be relatively easy to apply probability calculation. If not, then it becomes complicated to calculate the expected value (Bazerman & Moore, 2008). A major feature that also builds on complexity in calculating expected value is that such an attempt will involve the individual's subjective evaluation. This ultimately leads to one of the persistent arguments in the literature - whether consumers are rational or irrational.

Researchers have observed three categories of individual responses towards handling risk: risk averse, risk seeking and risk neutral, subject to the situation. Consumers who are inclined towards gain (describe outcomes from a gain perspective) seek certainty. Their decisions are based on gain outcomes, and they generally avoid risky alternatives (Bazerman & Moore, 2008). When consumers are concerned about losses and arrive at decisions which are framed upon loss alternatives, they may search for, or take more risks (Stoddard & Fern, 1999). Finally, when a consumer's expected value is the same as the objective outcomes within an uncertain event, then such a person can be regarded as risk neutral.

The first and second suggestions are consistent with Prospect Theory, which holds that consumers tend to make less risky decisions, or to avoid risk entirely when dealing with outcomes framed in terms of gain (see Figure 3-2). This is because they want to ensure their gains, or to preserve the gains. Conversely, people tend to take more risks when the decision outcomes are framed as a loss (Conchar et al., 2004). Empirical studies question the belief that human beings are always rational, and suggest that they have dynamic characteristics, subject to context. These views are consistent with the field of economics. Pablo (1997) investigated risk propensity for decision makers. His findings were, however, inconsistent. Contrary to Prospect theory, Pablo found that even when in threatening or loss situations, respondents in his study would rather take the more certain risk as opposed to the riskier alternative. The respondents were thus risk adverse decision makers.

The dimensions discussed above are closely linked to a consumer's reference point, decision frame, and the ensuing decision or choice (Stoddard & Fern, 1999). According to the research, customers may set different reference points depending on the context. At the same time, how their decisions are framed is critical to their subsequent responses (for example,

whether the outcomes are worded positively or negatively). The way people think in relation to the outcomes of an event greatly affects subsequent behaviour. In line with this, it is evident that decision frame comes between subsequent choice and consumers' reference points.

3.11.1 Possible Moderating Effects

There is ample evidence suggesting that Internet purchases attract different levels of risk perception from Internet browsers/non-shoppers (Forsythe & Shi, 2003). In general, both Internet browsers and Internet non-shoppers can identify some types of potential loss associated with e-booking, such as monetary loss because of credit card issues, inability to pre-examine the product pre-purchase, time/convenience loss, or personal information exposure.

Logically, Internet bookers tend to be more sensitive to time/convenience. These bookers also appear to be more innovative or novelty seeking, more self-confident, and are generally higher earners than those who do not shop over the Internet. These distinctions show that non-Internet bookers are likely to perceive higher levels of subjective risk when deciding on e-booking as compared to Internet bookers. Once more, consistent findings have sought to support the position that online bookers have a more positive view about Internet booking issues such as product variety, reliability and security, as compared to non-purchasers.

Recent literature has begun to show some changes in demographic differences between Internet bookers and non-bookers, with respect to age and gender (Foon & Chan, 2011). An early study by Donthu and Garcia (1999) showed that American Internet shoppers tended to be older, averaging 36-50 years, compared to non-users. This study found no significant

differences in education or gender. However, it is therefore important to appreciate that the pattern of Internet shopping is changing (Forsythe & Shi, 2003). Education, age and gender are three features that can be used to distinguish Internet buyers, although findings on gender have proved to be inconsistent. This is because they may or may not generate differences in e-booking behaviour concerning risk perception. Below is a discussion on previous studies relating to demographical differences of risk perception.

There are variations in suggestions of gender differences in risk perception across studies. Some researchers believe that gender differences in risk perception exist, while others disagree. Garbarino and Strahilevitz's (2004) study showed that women have lower levels of interest in e-booking compared to men. These findings are consistent with those of Sin and Tse (2002) in a study involving Hong Kong consumers. According to Garbarino and Strahilevitz's (2004) interpretation, this means that women have a higher level of perceived risk with respect to online purchases compared to men.

Another study by Forsythe and Shi (2003) indicated that women were found to perceive a higher level of risk in terms of Internet usage compared to men, both from the perspective of consequences of a particular loss, and probability of the said loss (Garbarino & Strahilevitz, 2004). These results confirm previous studies which support gender differences in perceived risk (Liebermann & Stashevsky, 2002).

Garbarino and Strahilevitz (2004) report that gender differences are based on neither expertise nor experience. According to their study, the causes of gender differences in PR are due to other, more significant factors than expertise. When comparing men and women in terms of privacy loss, their study showed that women suffered greater fear of severe

consequences from privacy loss. This could suggest that women are more serious- minded than men or are more easily influenced by negative consequences compared to men. Moreover, there are other possibilities - they may be feel more vulnerable to harassment or abuse that may result from previous loss. If these implications support prior findings, then marketers need to develop different strategies to alleviate these fears among women.

Little attention has been paid to the effects of age on perceived risk. Because of restricted resources, PR research tends to employ convenience sampling. This normally involves students who are usually young and educated, but with relatively low incomes. Therefore, the majority of individual characteristics, such as age, will be homogenous to the point that very few studies have discovered a significant effect.

However, these elements sometimes influence consumers' risk perception. For instance, Spence et al. (1970) report that the higher the level of education, the lower the risk decision makers perceive. Additionally, the higher the income, the lower the risk perceived. There were no significant differences in age, gender and religion. Van den Poel and Leunis (1996) also indicate no significant relationships between demographic variables and perceived risk, including education, family size, car ownership, or age. However, some risk differences were found between those from rural areas and those from urban areas. This means that consumers residing in rural areas saw products as riskier to buy, via both mail order and in-store, as compared to those living in urban areas. Van den Poel and Leunis (1996) have not provided a clear explanation for their findings. One possible reason could be that people living in rural areas may find it troublesome to shop using mail order because of geographic restrictions. When faced with unexpected purchase outcomes, such consumers may worry about dealing with extra uncertainty, such as longer distances for delivery and so on. In addition, for in-

store shopping, they may perceive returns or access to after-sales service as difficult, because of distance from the shop. However, consumers are gradually starting to think differently due to increased awareness and access to after-sales services.

3.11.2 Findings about Demographic Moderators

Past studies on gender indicate that men tend to be more ready to take on risks than women (Stoddard & Fern, 1999). Some researchers suggest that men are likely to associate internal factors, such as their own abilities, with the success they achieve. Women, on the other hand, credit their success to external factors, such as task difficulty and luck. Beyer (1990) and Weiner (1985), as cited in Stoddard and Fern (1999), presented this explanation. Nonetheless, it is uncertain whether this explanation will still hold. Whether there has been a change in women's point of view on risk-taking behaviour since the 1980s and '90s is arguable. It is also arguable that the answer to this question would be different, depending on the emergence of other questions, such as whether there is a difference between men and women now in terms of perceived risk.

In a simulated organisational purchase applied by Stoddard and Fern (1999) price was used as the purchase criterion. The ensuing report from the study indicates the existence of a difference in the decision frame. The implication of this is that gender therefore influences decision-making. More specifically, both men and women prefer to make decisions towards surer outcomes, as opposed to taking a risk, when dealing with decisions framed as gains. While this is consistent with Prospect Theory, it is inconsistent with early literature on the subject (Fagely & Miller 1990 cited in Stoddard & Fern, 1999). The results in Stoddard and Fern's (1999) research reveal that when decision outcomes are termed as losses, there is no

difference between men and women, although women appeared to be more willing to take risks than men when the decision outcomes are framed as gains. Stoddard and Fern's (1999) findings are contrary to those of other researchers. It is possible that these inconsistencies are because of the small sample sizes (188 for the first study and 116 for the second study), but this has not been investigated. In the current study, age, gender and Internet experience are used as categorical moderators for proposed hypotheses.

3.12 Summary

This chapter has analysed the theoretical underpinnings of the current study and provided as much detail as possible to elucidate some of the critical aspects involved herein. Certain constructs were discussed in detail, and associations identified between the accepted variables. Fifteen general hypotheses were developed to achieve the research objectives and address some of the enquiries raised. The next chapter will explore the specific approach and methodology this study employed during the research, coupled with a review of the various data analysis techniques used for testing the hypotheses.

Chapter Four Research Methodology

4.1 Introduction

The previous chapter involved the development of a conceptual model specifying the linkages among the variables of the models based on UTAUT2 and the Theory of Perceived Risk with the newly introduced construct 'Trust Belief'. This chapter will discuss the research methodology used in this study to test the research hypotheses, as well as the models suggested in the previous chapter. The chapter seeks to establish a relationship between the suggested theoretical models and associated hypotheses with the empirical findings outlined in the ensuing couple of chapters. This chapter is broken down into five key topics of methodology: the research paradigm, the methods of research, the validity and reliability of the measurement used, the analysis software and the context of the study.

4.2 Research Paradigm

Considering the argument below, and the reflections of existing perceived risk literature, the current research design will employ critical realism as the theoretical research locus. Adopting this paradigm will affect the research strategy, research nature, the literature search, the research design and its limitations, and significantly influences the process of the literature search.

4.2.1 Ontology

In critical realism, reality is assumed to exist in an imperfect form. According to Guba and Lincoln (1994) this is not apprehensible, because of the intractable aspect of phenomena, and also due to the imperfect nature of human cognitive processes.

4.2.2 Epistemology

Preference is therefore given to critical community and critical tradition. The goal of the inquiry is to explain and to predict knowledge. The findings are probably true, but they are always subject to falsifications (Guba & Lincoln, 1994).

4.2.3 Critical Realism

Critical realism is one of the branches in the field of marketing whose positions are parallel to those proposed in postpositivism. Critical realism, or scientific realism, lies in the middle ground between pure relativism and pure realism (Hunt, 1990). The core values of this approach, or its assumptions, form a common ground on which researchers discuss, develop, and challenge different philosophical positions across disciplines, as highlighted in current research (Tashakkori & Teddlie, 2010). Critical realistic philosophy appreciates the external world and the fact that it exists independently (Russell & Moore 1929 cited in Hunt, 1990). Johannessen and Olaisen (2005) explain that critical realists perceive reality as an external world, which must be explored and investigated using the human mind. This suggests that there is a connection between the subjective world and the objective world. Through this connectivity, realism seeks to attain an understanding of intricate social phenomena (Healy & Perry, 2000).

It is, however, challenging to establish this connectivity. As with the postpositivist perspective, this is a result of the notion that understanding of the external world will change over time, depending on human experiences, knowledge, context, research instruments, or cultural and social structures (Silverman, 2006). This, then, implies the existence of multiple layers between the natural and social world, and is beneficial in explaining why critical realists posit that the external world should be separate from the social world (Sobh & Perry, 2006). This distinction reveals that much of social research is anchored in contexts and contingency (Healy & Perry, 2000).

Therefore, critical realists, in the broad sense, accept that knowledge can be derived from people's perceptions of the external world. At the same time, potential challenges may result if a realist or positivist approach was used without fully responding to its limitation. This further shows that knowledge may include errors. Research queries usually include what knowledge is available, how effective it is in explaining a phenomenon, and how this knowledge is structured and processed by human beings. Once more, this observation is based on a postpositivist fear that a person's perception may not be entirely accurate, because human beings are prone to error. Individuals may be inadequate or wrong, in such a way that they may unexpectedly generate hallucinations or illusions (Hunt, 1990).

Furthermore, researchers emphasize that individual perceptions and potential anxiety, influence measurements and observations. Because the main objective of realism is to acquire knowledge of the external world via individual perceptions, this can compromise an inquiry, and disqualify it if illusions unexpectedly or unknowingly emerge, for instance, when measurements are discovered to be imperfect. According to Hunt (1990), researchers need to critically evaluate the accuracy of individual perceptions within social research. The

researcher's suggestion is that: "All knowledge claims must be critically evaluated and tested to determine the extent to which they do, or do not truly represent or correspond to that world." (Hunt, 1990:9).

Again, due to the likelihood of measurement problems, it is important for a critical realist to examine how accurate individual perceptions are. For instance, the critical realist must assess how close these perceptions are to the truth. According to Schostak (2002), the social world is uncertain, messy, dynamic and super complex. These features are consistent with previous discussions on the existence of differences between the social and the natural world. Johannessen and Olaisen (2005) explain that this distinction is critical in making the distinction in critical realist research. Schostak (2002) also suggests that it is possible to influence or manipulate the natural world through statistical and experimental statistics. This world is then considered controllable, or amenable. Nonetheless, the social world is different from the natural world, and so are its features. The social world does not show the likelihood of control or manipulation. In fact, it functions differently, because individuals possess their own ideas about the world in which they live (Pather & Remenyi, 2004; Schostak, 2002).These understandings or ideas can change, depending on the context. As a result, critical realist researchers posit that it is inappropriate to adopt statistical methods when examining the social world. On the contrary, care is required in evaluating the appropriateness of measurement within the context of social science research.

Additionally, critical realists appreciate, and are aware that the statistical analysis of quantitative data can be used to create patterns such as correlations, but these patterns will rarely provide definite answers, because the social world is dynamic and ever changing.

Critical realists appreciate that causal relationships may, or may not occur in different situations (Sobh & Perry, 2006).

Therefore, methodological techniques should be regarded as mechanisms or tools that refine knowledge where applicable (Johannessen & Olaisen, 2005). Mingers (2002 cited in Pather & Remenyi, 2004) argues that no commitment in terms of methodological or philosophical framework should be tied into a single piece of research. The critical perspective goes beneath the surface of the problem to explore the structure of a situation, and to further explain the situation in detail. This perspective warrants a high degree of flexibility in the methodology, for example, the use of multiple or mixed models. The existence of knowledge through various facets, such as psychological, material and social aspects, necessitates diverse methods to acquire a firm understanding of the situation or problem.

It is essential to employ various methods in an attempt to understand these elements and how they interact with one another (Mingers, 2002 cited in Pather & Remeny, 2004). This suggests the applicability and suitability of using mixed models or mixed methods in social research design.

Lastly, the dynamism and complexity of the social world needs to be noted. Critical realists explore and investigate the problems of observation and measurements, as well as the influence they have on knowledge. Critical realist research needs to acknowledge the shortcomings of positivism, and although it may borrow quantitative models, approaches and analysis methods to respond to research questions, the core limitations and assumptions must be clearly addressed. According to Healy and Perry (2000), with greater awareness of these limitations, critical realism is suitable in the majority of marketing management research. In

fact, Hunt (1990) explains that the majority of marketing studies have revealed that researchers commonly take the position of the critical realist, or scientific realism. He comments that "Theories comprising such diverse concepts as attitudes, intentions, brand awareness, information search, perceived risk, and so forth give us warrant for believing (to the extent such theories are successful) that these entities have a real existence and the theories comprising these entities truly 'say something' about the world." (Hunt, 1990:9). Some researchers propose that paradigms can collaborate with each other, if the research is carefully and critically designed, to solve the problems associated with the traditional schools of thought. For instance, constructivism can be a crucial supplement in overcoming some of the issues that plague positivism. This would facilitate the notion of triangulation, which is also referred to as mixed methods (Tashakkori & Teddlie, 2010). Some researchers argue that a critical perspective is very important in defining the theoretical foundations in social sciences (Olsen, 2004).

4.2.4 Postpositivism

Postpositivism is a paradigm that moves away from positivism. Some researchers e.g. Tashakkori and Teddlie (2010) refer to postpositivism as "the intellectual heir to positivism." This paradigm emerged between the 1950s and 1970s, raising challenges against the traditional assumptions linked with positivism. This approach was also designed to respond to some of the problems of the positivism paradigm (Tashakkori & Teddlie, 2010). However, stemming from the traditional philosophical school of positivism, postpositivism inevitably suffers from the same problems as the traditional school. These include the problem of quantification, addressing the suitability of quantifying social phenomena and applying this

technique to a variety of different contexts, such as perception areas. The pure positivism paradigm does not investigate these areas.

Postpositivism involves the critical review of the fundamental stance of positivism. It acknowledges the assumption that the world may be external and objective, but holds that care is required in studying such knowledge (Phillips & Burbules 2000 cited in Creswell, 2003). Thus, postpositivism accepts the existence of an objective reality in the broader sense, but with keen consideration. Furthermore, this critical perspective is a response to the challenges of quantification previously discussed, i.e. the appropriateness of quantifying social phenomena.

Postpositivists contest the positivist's position that absolute truth is the only basis for 'pure knowledge (Tashakkori & Teddlie, 2010).' Postpositivist scholars proceed to challenge the assumption that reality is a single objective entity (Phillips & Burbules 2000; cited in Creswell, 2007). One of the fundamental arguments in relation to this view is that it is inappropriate to assume that the researcher is completely independent of reality. According to postpositivists, the researcher is part of reality, and therefore influences the research in at least two areas: the values of the researcher, and his theory of interest (Tashakkori & Teddlie, 2010).This interdependence of interest has the potential to conflict with the traditional positivist scholar's desired independence.

Therefore, the postpositvist researcher agrees to one of the constructivist assumptions, that our understanding of reality is constructed and structured by human beings (Tashakkori & Teddlie, 2010). This stance influences the nature of the research, because the researcher affects the research, as well as the measurements and subjects involved within the research.

This relates to the quantification problem. As summarised by Sayer (2010), the issue of concern here is how to deal effectively with any problems which arise from quantification.

4.2.5 The Problem of Quantification in Social Science Research

Natural science studies favour quantification in data reduction (Sobh & Perry, 2006). These studies measure constructs including behaviour, but not perception, quantitatively. This hints at the probable existence of implicit assumptions behind quantification. Mathematics is often a suitable response to methodology and philosophy, especially as they relate to positivism. However, there are some potential problems with this approach in social sciences, particularly when perception is involved. In social research, most of the studies are related to individuals who continuously and gradually develop attitudes and beliefs about a phenomenon. The measurement process often involves dynamic components such as contexts and individuals. Because dynamics can influence the outcome in social science research, whether the approach itself is adequate or inadequate, the issue of discord is whether these subjects ought to be treated in the same manner as objects, which are studied in the natural world.

After reviewing this question, Sobh and Perry (2006:197) highlight that it may not only be problematic, but also inappropriate to quantify a social science research inquiry, such as management or marketing. These researchers point out that the findings are inconsistent, because replication of positivist research yields divergent results. This confirms existing findings. This research also reveals a major challenge in social science research, which is whether findings from social science research are generalizable to the entire population. This challenge can be illuminated using meta-analysis.

Meta-analysis of numerous studies tends to reveal the inability of pure adoption of positivism to entirely address research complexity in different contexts (Sobh & Perry, 2006). For instance, Gemunden's (1985) research revealed that the majority of PR studies do not produce similar results. This reveals a high degree of hypothesis failure in the context of this field. Measurement scales present an additional critical concern. According to Sayer (2010), only observable objects which are never changing in quality are sufficient forms for quantification, using interval scales. This implies that these objects can be measured at different times, or for different purposes, but remain the same in nature, therefore producing consistently similar results. Regardless of how conditions change, the quality invariability must remain independent. There is ample evidence of the above in a wide body of scientific research in the natural world. Yet, this is less apparent in the social world. This is because objects in social sciences are context-dependent. For example, most objects can be altered subject to the context, such as perception or attitudes.

This is summarised by Sayer (2010), who states that application unavoidably generates issues such as measurement errors in research. According to Sayers, “the recognition of the power and elegance of mathematics should not prevent us inquiring into the limits of its applicability”. The discovery that a model is free from mathematical errors says nothing about whether it is applicable to the world; the purely formal nature of mathematical reasoning does not relieve us of the need to inquire into its practical adequacy.

The above comment reveals a common issue worth discussing: researchers need to critically evaluate the application of mathematics in social science research. Mathematical approaches or models may assist in explaining one or more features of a phenomenon. Nonetheless, this capability must not cover up concerns about its adaptability in social sciences. Sayer (1992:

180) further states that "Mathematical models therefore tend not to be concerned with explaining what it is about social objects which produces certain changes but with representing and calculating the effects of actions."

This means that mathematical power cannot guarantee certainty of portraying a complete picture of a phenomenon. The power of these models would not result in the conclusion that mathematics is entirely applicable in providing explanations for social phenomena. Sayer (2010) reiterates that mathematical models present a sound approach for measuring outcomes, but these models do not independently explain the causal factors linked to an inquiry. If researchers fail to critically elucidate this stance, but simply proceed to adopt mathematical approaches, there can be serious negative effects on their research, especially when the researcher employs a positivist approach. Because subjects and contexts are separated, researchers may fail to effectively appreciate and address the complexity of the situation (Sayer, 2010). It has been noted that the mechanism of achieving the suggested absolute truth is weak, because the measurements are far from perfect. As previously discussed, measurement errors may occur, resulting in sampling biases.

This implies that researchers need to be critical of each paradigm. There is no philosophical stance which is perfect in isolation (Pather & Remenyi, 2004). A postpositvist may face challenges in gaining insights into a complex situation when using only quantitative measurements, because of a lack of in-depth understanding of respondents' perceptions. It is impossible for phenomenological studies to generate generalizable results to the entire population because the phenomenological perspective rejects generalizations (Pather & Remenyi, 2004). Evidently, the application of mathematics in social science research has its own limitations in generating a full understanding of the investigation (Sayer, 2010). If this

critical issue is not addressed, the power of mathematics may be discounted, the phenomenon's nature can be oversimplified, and achieving a full comprehension of the phenomenon may be too difficult or complex to attain.

The application of mathematics proceeds to show the problems of a purely philosophical approach in social sciences. It starts to cause concerns when the researcher fully applies its methods and approaches. This also highlights that social science researchers need to be more critical of the phenomenological and positivism approach. This perspective is held by those who are considering how a researcher can ascertain that a measure is consistent with human perceptions, and also accurate, i.e. when data accuracy and data assurance is critical. Creswell (2003) reiterates that it is challenging a researcher to discover the objectivity of reality, or the absolute truth. Mitchell (1999) proposes a similar argument in perceived risk theory. According to the researcher, the difficulties associated with reaching an understanding of the realistic or objective risk, coupled with comments on relative or subjective risk may assist researchers in gaining a better understanding of the consumer. Evidently, the researcher will face problems that are born of imperfections in measurements. Consequently, scholars are faced with the challenge of overcoming existing difficulties in constructing a sound understanding between the subjective and objective world.

Acknowledging such probabilities of error creates a compromising position between phenomenology and positivism, or between relativism and realism. Postpositivism appreciates that some knowledge can be measured quantitatively. However, because quantitative methods are simply mechanisms or tools that help to understand a phenomenon, there is a likelihood of measurement errors in the subjective or social world. Careful application and implementation should thus be established. With time, researchers have

proposed alternative research paradigms in response to these problems. Critical realism is arguably the closest school of thought to the postpositivism philosophy, because critical realism is developed from postpositivism, and shares numerous assumptions.

4.3 Research Method

Methods are sets of techniques and steps for collecting, synthesizing and coding data to systematize approaches of a research, while the term 'Research Methodology' is a more generic concept that includes the philosophical underpinnings of research and one or more different methods. This research uses quantitative method with all the techniques required for the method such as sampling, questionnaire design, reliabilities, validities and data analysis. This section covers the techniques used in more detail.

Quantitative method uses statistics to reach significant conclusions about a hypothesis. Quantitative research focuses on collecting numerical data and then analysing the information through techniques that involve counting or statistics; its main analytical objectives are to quantify variation, to predict causal relationships and to describe the characteristics of a population or sample (Saunders, 2012).

This study used multiple sources - 'evidence triangulation' of pre-validated scales to increase the constructs validity and items used in the questionnaire. The primary data were collected through an online cross-sectional survey targeting consumers. A separate discussion section on the context is provided later in this chapter.

4.3.1 Operationalization of Measurement Scale

In the development of the hypotheses for this research study, the focus was on coming up with conclusions that could be empirically tested to demonstrate whether there was a correlation between effort expectancy, performance expectancy and trust belief, perceived risk and behavioural intention.

This highlighted the need for the creation of a continuum that could be used to measure the theoretical variables identified to prove the construct introduced in the hypothesis. A construct or latent variable is defined as a hypothesized theory that is not directly observable, and which can only be measured or inferred through the use of other directly measurable variables (Bollen, 1989; Hair et al., 1998).

These variables are instrumental in a research study, in revealing the levels of theoretical variables that prove or disprove a construct. The definition of the construct and its parameters determine the generation and choice of these items for the research pool (Saunders et al., 2009). These measurement scales, developed for the primary purpose of measuring research phenomena that cannot be directly observed or assessed, enable researchers to attain accuracy in the assignment of numerical values to events, phenomena and objects (Duncan, 1984). The phenomenon's boundaries have to be recognized to keep the content of the measurement scale from deviating into unintended domains (DeVellis & Dancer, 1991). Further information regard scale development is presented in (Appendix VIII).

Performance Expectancy

Within the context of hotel e-booking services, performance expectancy is defined as the degree to which an individual who is using hotel e-booking services to book a room would perceive a benefit from doing so. To determine the PE construct, this study measures consumers' acceptance of hotel e-booking services. Three items are used to measure the constructs derived from Venkatesh et al. (2003). The items were subject to change to fit the current domain and the context of the study (see Table 4-1).

Table 4-1 Items of Performance Expectancy

Antecedent Construct	**Definitions**	**Items No.**	**Revised items /Justification of added, dropped or amended items**
Performance Expectancy	"the degree to which using a technology will provide benefits to consumers in performing certain activities" (Venkatesh et al., 2012: 159).	3	• PE1: I find hotel e-booking service useful in planning my trip. • PE2: Using hotel e-booking service helps me accomplish the reservation more quickly. • PE3: Using hotel e-booking service increases my productivity. Adding hotel e-booking service to the original items was necessary to fit current context of study. No change was made on the scale of measurement.

Effort Expectancy

Effort expectancy, based on the context of this study, is defined as 'the degree to which individuals believe that using hotel e-booking services is free from effort'. Four items were

adopted to measure effort expectancy (see Table 4-2). Two items were adopted from Davis et al. (1989), the first one measuring how clear and understandable the interaction with the websites; the second how easy it is to become skilful in using a website. The third item, adopted from Moore and Benbasat (1991) measures how easy it is to learn the website.

Consumers' perceptions of hotel e-booking service ease of use are likely to affect their perception of usage risk. Services that are perceived as difficult to use, requiring more effort to learn to navigate are also likely to be perceived as risky to adopt or to use. Moore and Benbasat (1991) argue that complexity in a user interface reduces consumer intention and adoption of new technology. Therefore, it is assumed that the less effort seen to be required for using hotel e-booking services, the more likely people are to adopt and use them.

Table 4-2 Items of Effort Expectancy

Antecedent Construct	**Definition**	**Items No.**	**Revised items /Justification of added, dropped or amended**
Effort Expectancy	"the degree of ease associated with consumers' use of technology" (Venkatesh et al., 2003:450).	4	• EE1: My interaction with the hotel e-booking service would be clear and understandable. • EE2: It would be easy for me to become skilful at using hotel e-booking service. • EE3: I would find the system easy to use hotel e-booking service. • EE4: Learning to use hotel e-booking service is easy for me. *Adding hotel e-booking service to the original items was necessary to fit the current context of study. No change was made on the scale of measurement.

Facilitating Conditions

Practically, in the current context, facilitating conditions can be defined as 'Individual perception of the resources and support available in hotel e-booking services to reserve accommodation'. It is important to ask about the availability of the resources necessary to use the website. For example, consider a safe payment method. Compatibility of the website with other technology is equally important, such as the compatibility of website applications with smartphone systems. Four items were generated from different studies. Two items were obtained from a scale applied in three different studies under constructs of perceived behavioural control (Ajzen, 1991; Taylor & Todd, 1995a, 1995c). One item was obtained from Moore and Benbasat (1991) under the construct of compatibility. The last item was obtained from Venkatesh et al. (2012) under the construct of facilitating conditions (see Table 4-3). All items were slightly re-worded to suit this study context

Table 4-3 Items of Facilitating Conditions

Antecedent Construct	Definition	Items No.	Revised items /Justification of added, dropped or amended
Facilitating Conditions	"Refers to consumers' perceptions of the resources and support available to perform a behaviour." (Venkatesh et al., 2012:159)	4	• FC1: I have the resources necessary to use the hotel e-booking service. • FC2: I have the knowledge necessary to use the hotel e-booking service. • FC3: The hotel e-booking service is not compatible with other systems I use. • FC4: A specific person (or group) is available for assistance with system difficulties. *The addition of hotel bookings website to the original items was necessary to fit the current context of study. No change was made on the scale of measurement.

Social Influence

Social influence in relation to the current context is defined as the degree to which the influence of others, such as family, friends, etc. might have a significant impact on the way an individual uses the hotel e-booking service. Social influence is derived from subjective norms in the Theory of Planned Behaviour and social factors in the PC Utilization Model (PCUM) (see Table 4-4).

Table 4-4 Items of Social Influence

Antecedent Construct	Definition	Items No.	Revised items /Justification of added, dropped or amended
Social Influence	"the extent to which consumers perceive that important others (e.g. family and friends) believe they should use a particular technology" (Venkatesh et al., 2003:451)	3	• SI1: People who are important to me think that I should use hotel e-booking service. • SI2: People who influence my behaviour think that I should use hotel e-booking service. • SI2: People whose opinions that I value prefer that I use hotel e-booking service. *Adding hotel e-booking service to the original items was necessary to fit the current context of study. No change was made on the scale of measurement.

Facets of Perceived Risk

The online transactions of hotel e-booking services are run entirely through the Internet, with no physical involvement. Therefore, physical risk was an unnecessary risk dimension for the current context of study. Performance risk regarding hotel e-booking services is determined by the possibility that the security systems might not function properly, and therefore might not deliver the designed security benefit. Financial risk reflects 'the potential monetary loss from the initial purchase of the product and its subsequent maintenance'. In the current context, the financial risk would be the potential monetary loss during an online payment transaction through hotel e-booking services. Therefore, the study investigates the perception that using an Internet bill payment service will subject the consumer's account to potential

fraud, or that signing up for hotel e-booking services would lead to a financial loss. Payment risk may be associated with financial risk, in the sense that if an account is misused, then the consumer may suffer unexpected consequences. Payment risk is described as any financial negative outcomes resulting from the provision of credit card information over the Internet (Featherman & Pavlou, 2003). In such instances, monetary loss from this account can become a major consequence. In summary, the definition of payment risk appears rather unclear, to the point that it is not especially useful to separate it from financial risk.

Time risk operates when a user wastes time by making poor purchasing decisions, researching or learning how to use the system. Bellman et al. (1999) explained the importance of time risk in predicting the overall perception of risk in online services. Therefore, measurements should be taken of the consumer's time consumption during transactions made through hotel e-booking services. For example, consumers could be asked if using a hotel-booking website would result in wasting time, which might lead to loss of room availability. Psychological risk is defined as 'the risk that the performance of the product will have a negative effect on the consumer's peace of mind and the potential loss of self-esteem from the frustration of not achieving a buying goal'. The operationalization of psychological risk in the hotel e-booking service context can be addressed by understanding how consumers perceive the hotel e-booking service to fit their self-image or self-concept (see Table 4-5). In addition, operationalization of psychological risk can be determined by psychological loss to the consumer during the transaction, for instance due to anger or loss of control. Social risk reflects 'the potential loss of status in a social group, because of adopting a product or service'. The operationalization of social risk in the hotel e-booking service context is represented by the consumer's perception of loss in his/her social image. In other

words, does using hotel e-booking services produce a negative effect from other people, such that the consumer would avoid using the systems? Privacy risk is defined as 'the potential loss of control over personal information, such as when information about an individual is used without that person's knowledge.' In the hotel e-booking service context, the study measures the potential for consumers to lose their personal information during an online transaction. In addition, the instrument will also measure the consumer's potential loss of personal information after registration with the booking website. Overall risk is a general measurement of all the foregoing criteria joined together to measure the influence of all six components of risk. These aspects form the risk expectancy, which influences the intention to use technology negatively. It is expected that the more consumers perceive these risk dimensions, the less likely they are to use or purchase from the booking website (Jaruwachirathanakul & Fink, 2005).

The various types of perceived risks are highlighted in the studies of Bélanger and Carter (2008), Pavlou (2003) and Yousafzai et al. (2003), who identify two main groups of risk. The first group is related to system dependent uncertainty risks, which are often the result of functional errors, security challenges in online payments, or deposit costs. The second group of risk relates to transactions specific uncertainty risk, which is the result of the conduct of third parties who play a part in the online transactions.

Typically, system dependent uncertainty risk features an external variable, mainly because it is linked to the environmental uncertainty of the transaction. System dependent uncertainty risk also has an unpredictable nature which is associated with the unpredictability of e-booking services. For instance, Bélanger and Carter (2008), Pavlou (2003) and Yousafzai et al. (2003) affirm that security gaps, current limited functions and technological basis of errors

fall beyond the control of the consumers or the e-booking servers. On the other hand, transaction specific uncertainty is perceived as an internal variable. It includes such aspects as market uncertainty, which may be as a result of decisions by various parties resultant of an opportunism and information that lacks symmetry among these parties, which results in their taking advantage of the Internet environment (Yousafzai et al., 2003; Bélanger & Carter, 2008).

Within the context of online payments, some of the exogenous system uncertainty risks are the breach of private information, theft of credit card information and theft of information by hackers (Yousafzai et al., 2003). On the other hand, some of the endogenous transactional risks include payment misrepresentation, warranty denunciation, the demonstration of false identity and provision of misleading advertisement, fraud and leakages of private information. Consequently, this research will classify security risks, functional risks, social risks and time risks as system dependent risk groups which are linked to the prevailing situation of a given stage of e-booking, and which cannot be eliminated because of their systemic features. In the same manner, psychological, service, economic and privacy risks will be observed as transactional risks, which are external risks in that they represent uncertainties borne from the potential misbehaviour of certain parties involved in the transaction.

As is evident in the financial field, system risks which are linked to the public environment cannot be decreased through portfolios of financial assets, whereas transactional risks can be eradicated by investing in differing business cycle assets. This can be extrapolated to the online payment environment. This means that the perceived risks associated with system uncertainties cannot be easily changed by the consumer in the short run, until certain changes

take place in the infrastructure relating to online payment procedures. By contrast, perceived transactional risks arising from the misbehaviour of various third parties can be solved by adopting multi-channels, and/or through competition which exists between the different servers. The unique nature of perceived risks results in differences as to how consumers react. For instance, consumers tend to be sensitive to transactional risks which make them vulnerable. In this sense, the more money that is being transacted online, the more the customer will perceive the risk. In such instances, when the size of funds transacted on the Internet increases, higher risks will be perceived, associated with the opportunistic behaviour of various third parties, because of higher exposure to uncertainties that are transaction-specific. Consequently, while the perceived total risk of consumers increases, their trust in the hotel e-booking service, and/or their trust in third party payment platforms will decrease significantly.

System dependent uncertainties behave differently as compared to the transaction specific uncertainties discussed above. Hoffman et al. (1999) argue that these are strongly influenced by the effectiveness of system dependent variables, such as public key encryption infrastructure, third party platforms, trust-certification bodies and other tools for ensuring the basic security of the systems, to build and enhance trust among customers in the initial stages of online transactions. According to Hoffman et al., when consumers perceive these incontrovertible risks, but still choose to bear them by making online transactions, it means that they perceive a comparatively low total risk, despite the existence of high system risks. This also means that the consumers have a strong trust in the third-party payment platform and/or hotel e-booking service.

Table 4-5 Items and Operational Definition of Perceived Risk

Type of risk	Definition	Ref.	Items
Overall risk	"A general measure of perceived risk when all criteria are evaluated together"	(Featherman & Pavlou, 2003:455)	• OR1: Overall, considering all sorts of factors combined, about how risky would you say it would be to sign up for and use hotel e-booking service? • OR2: Using hotel e-booking service to pay my hotel bills would be risky. • OR3: Hotel e-booking service is dangerous to use. • OR4: Using hotel e-booking service would add great uncertainty to my bill paying. • OR5: Hotel e-booking service exposes you to an overall risk.
Financial risk	"The potential monetary outlay associated with the initial purchase price as well as the subsequent maintenance cost of the product and potential finance loss due to fraud"	(Featherman & Pavlou, 2003:455)	• FR1: What are the chances that you stand to lose money if you use hotel e-booking service? • FR2: Using hotel e-booking service subjects your current account to potential fraud. • FR3: My signing up for and using hotel e-booking service would lead to a financial loss for me. • FR4: Using hotel e-booking service subjects your current account to financial risk.
Performance risk	"The possibility of the product malfunctioning and not performing as it was designed and advertised	(Featherman & Pavlou, 2003:455)	• PR1: The hotel e-booking service might not perform well and create problems with my credit.

Type of risk	Definition	Ref.	Items
	and therefore failing to deliver the desired benefits."		• PR2: The security systems built into the hotel e-booking service are not strong enough to protect my current account. • PR3: What is the likelihood that the performance of the hotel e-booking service does not work properly? • PR4: Considering the expected level of service performance of the hotel e-booking service, for you to sign up for and use it would be risky. • PR5: Hotel e-booking service servers may not perform well and process payments incorrectly
Psychological risk	"Involves the possibility of negative effect on personality or self-image by purchasing products/services."	(Kim et al., 2009: 206)	• SYC1: I think booking hotel rooms over the web gives me a feeling of unwanted anxiety. • SYC2: I think booking hotel rooms over the web makes me feel psychologically uncomfortable. • SYC3: I think booking hotel rooms over the web causes me to experience unnecessary tension.
Social risk	"Potential loss of status in one's social group as a result of adopting a product or service, looking foolish or untrendy."	(Featherman & Pavlou, 2003:455)	• SOR1: What are the chances that using the hotel e-booking service will negatively affect the way others think of you? • SOR2: My signing up for and using a hotel e-booking service would lead to a social loss for me. • SOR3 My friends and relatives would think less highly of me if I

Type of risk	Definition	Ref.	Items
			use hotel e-booking service.
Time risk	"Consumers may lose time when making a bad purchasing decision by wasting time researching and making the purchase, learning how to use a product or service only to have to replace it if it does not perform to expectations."	(Featherman & Pavlou, 2003:455)	• TM1: If you had begun to use a hotel e-booking service, what are the chances that you will lose time due to having to switch to a different payment method? • TM2: My signing up for and using a hotel e-booking service would lead to a loss of convenience to me because I would have to waste a lot of time fixing payments errors. • TM3: Considering the investment of my time involved in switching to (and setting up) a hotel e-booking service makes them risky. • TM4: The possible time loss from having to set-up and learn how to use a hotel e-booking service.
Privacy risk	"Potential loss of control over personal information, such as when information about you is used without your knowledge or permission. The extreme case is where a consumer is 'spoofed' meaning a criminal uses their identity to perform	(Featherman & Pavlou, 2003:455)	• PRY1: What are the chances that using a hotel e-booking service will cause you to lose control over the privacy of your payment information? • PRY2: My signing up for and using a hotel e-booking service would lead to a loss of privacy for me because my personal

Type of risk	Definition	Ref.	Items
	fraudulent transactions."		information would be used without my knowledge. • PRY3: Internet hackers (criminals) might take control of my current account.
Security risk	"The risk that the system or software of the third parties is not stable or vulnerable to network attacks."	(Pennington et al., 2003 cited in Featherman & Pavlou, 2003:455)	• SCR1: That the transaction information will be hacked by, or viruses caused by security lapses of operation system or online payment tools. • SCR2: That my account information will be illegally used. • SCR3: That payment platforms cannot work properly.
Service risk	"The probability that the firm will not offer a good service in the future."	(Lopez-Nicolas & Molina-Castillo, 2008:104)	• SR1: That if I use hotel e-booking service, it would be difficult to communicate with the hotel-booking platform when I need help. • SR2: That if I use hotel e-booking service, it would be difficult to communicate with the bank or third-party platform when I need help.

4.3.2 Sampling

Sampling is the process of using the data collected from a small section of a population as a representation of the whole, to draw conclusions about the entire population. This technique is crucial in research to establish the validity and impartiality of the data collected and to make sure that the sample is an accurate representation of the population.

Couper (2000) sets down a typology that is helpful in defining Internet survey sampling techniques. This typology lists several options for sampling, which include the main ones used here, such as non-probability sampling.

Non-Probability Sampling

This method of sampling does not aim to gather statistics by sampling the online population, but rather to ensure scientific validity through two main methods. The first is self-selection. This is the inverse of pre-recruited panels, whereby invitations to take part in web-based surveys are posted to respondents on multiple platforms. The second is through a volunteer panel. Unlike the random recruitment of a panel, respondents are invited to participate in the survey only after they submit their demographic information.

The typology defined by Couper has its drawbacks however, as there is a clear disconnect from the sampling frame considered, especially the random sampling employed, with the general population that the sampling frame is supposed to represent. This threatens the validity of inferences made from the surveys with regard to the general populace (Couper, 2000). The difference between respondents of the web-based surveys and the general populace, and the lack of an identifiable sampling frame for online users are the main

hindrances when it comes to making inferences from these types of surveys. Saunders et al., (2009) observed that many researchers have a hard time drawing a random sample from lists of Internet users, as it is virtually impossible for them to track the rate of non-responses.

Additionally, respondents of these surveys are thought to be more experienced, have better Internet skills, and to be more avid Internet users compared to those who do not respond (Saunders et al., 2009). Sheehan and Hoy (1999) suggest that respondents are generally younger males who come from high-income households. This is supported by Yun and Trumbo (2000) who found that subjects who returned Internet surveys usually had high connections professionally and educationally, interacted more with their colleagues and used email more in their daily activities than those who filed paper surveys. Zhang (2000) also discovered that respondents of web-based surveys perceived themselves as having higher abilities when it came to the Internet and were online more often. They were also of a younger demographic by about seven years. However, Zhang (2000) did not find much of a difference between their genders and web access in comparison with those who responded via post or fax.

The use of a consumer email database in this study, acquired from an e-survey agent, Response Panel, was prompted by the limited access to the email databases of Saudi Arabian Internet bookers, because of the nation's policies on confidentiality, security and privacy. The use of the database in conjunction with boundaries set for the study necessitated the use of probability sampling. This type of sampling is used when the probability of the selection of the subjects is known.

This makes it possible for statistical inferences to be made on the sample selected. The approach allows generalizations, with the selected respondents representing the general Internet booking population.

Study population

Saunders (2012) gives the following definition of population: "The full set of cases from which a sample is taken is called the population." Internet bookers hence became the population for this study, since its main purpose was to find predecessors of hotel e-booking services, and through this to identify the characteristics of this population for travel services. The specific target population was Saudi consumers who primarily conduct their booking online.

Sample size

As the study uses Structural Equation Modelling (SEM) as its main tool to test its hypotheses and the proposed structural model, sample size is vitally important in the statistical analysis, and in the initial assumption tests. It also plays a vital role in the process of determining the reliability and credibility of the current model evaluation. The sample size used in the study was determined by the presence of SEM, as there is no standard sample size. According to O'Rourke and Hatcher (2013), the recommended ratio for SEM is at least five people for each parameter, whereas Hair et al. (1998) recommend a ratio of 10 respondents for each parameter. They, however, advise researchers to consider various factors in coming up with the sample sizes, such as model size, model misspecification, estimation procedures and departure from normalcy.

By using the most common procedure of estimation, the Maximum Likelihood Estimation (MLE), the most appropriate size is 200. Since this study uses SEM, the sample size is determined by previous suggestions and study results, which recommend the level of the final model to be evaluated, based on the model fit indices. Anderson and Gerbing (1984), along with numerous other studies show that there is a correlation between model fit indices, such as absolute and incremental fit indices, and sample sizes (Bollen, 2014; Hu & Bentler, 1995). Subsequently, the number of fit indices and the model remain constant in the MLE method when the sample size is 250 or larger, and the latent constructs remain independent.

4.3.3 Questionnaire

Although the application of the tenets of descriptive research design in this study and their importance cannot be undercut, the initial stages of the study demanded the use of an exploratory research design to gather the required knowledge and identify the traits and subsystems unique to the research study setting under investigation. The quantitative nature of exploratory research in examining a given data set and finding the interrelation between the variables was necessary to provide insights on the issues plaguing the hotel e-booking service.

The questionnaire has long been a valuable study instrument in research designs and in the descriptive and causal plan of research study. Its greatest attraction is that it allows researchers to collect a large amount of information from a diverse population, in the form of standardized questions. The data collected is used to generate pertinent information that is used in the research to address various factors affecting the market and its environment, including who, what, when and how. Questionnaires' cost effectiveness and ability to obtain

large diversified samples make them hugely popular in the research field (Hair et al., 2003). With Internet technology and its users being the major focus of the current market study, the Internet provided the best forum for distribution of the questionnaire in the form of e-surveys.

Internet Survey

The first type of Internet survey, known as the asynchronous email survey, came into play in 1986 (Kiesler & Sproull, 1986). The second type of survey is known as the synchronous web-based survey, and was created in 1994 (Pitkow & Recker, 1995).

The age of the Internet has reached its peak, with business communication moving online and providing an excellent niche for e-surveys as the primary survey method. These surveys are distributed in different forms, such as email push messages and on standalone sites.

Various studies laud the benefits of e-surveys, from their ability to collect data on a large scale (Couper, 2000) to their cost effectiveness, as costs reduce with the increase in sample size, which is the inverse of standard surveys (Watt, 1999), making it an even more inexpensive research instrument (Weible & Wallace, 1998). Other studies show that e-surveys have become a common occurrence (Lazar & Preece, 1999), indicating confidence in their results, which are in no way different from postal surveys except that they offer a faster distribution and response cycle, which is advantageous for researchers (Swoboda et al., 1997; Yun & Trumbo, 2000).

The automated response mechanisms allow respondents of the surveys to type their answers, select choices from drop-down menus, or click on the answers from the choices provided.

The surveys serve different purposes, depending on the needs of the researchers who post the survey, then direct traffic towards it through email or other advertising methods.

Web surveys are fast and inexpensive, having a worldwide reach without the added cost of labour, postal charges and time, as they do not need to be collated or mailed physically. Web surveys can also reduce errors, since the questions are computer generated and adaptive, being based on previous responses. This simplifies the task for both respondents and researchers.

The use of database technology and Hypertext Markup Language (HTML) interface to verify and store the data collected speeds up the research process considerably, differing from the email survey, which is embedded in an email or attached as a separate entity, both of which must be manually moved and stored. The use of both types of surveys, however, taps into each of their respective merits, enabling researchers to communicate directly with their targeted audience using email surveys, while reaching out to a wider demographic with web-based surveys from those visiting the sites.

Considering the discussion above, this study used web-based surveys to collect the required data, relying on the efficiency of administrative power and automated data storage that the web-based survey can offer. The questionnaire was designed based on one of the latest e-survey software platforms, since the new software and technology has been very successful in handling the technical limitations that used to enhance distribution on portable devices (Saunders et al., 2009). The choice of software was based on various factors, such as its capability to directly transfer and store responses on a database, preventing respondents from tampering with the survey and eliminating transcription errors for better accuracy. Some of

the software that underwent the rigours of this testing include Smartsurvey.com, Surveymonkey.com and Qualtrics.com. After selection of the Smartsurvey.com software, which adheres to the United Kingdom Data Protection Act laws, the design process began using the following steps.

Design

Churchill and Iacobucci (2005) outlined a series of steps for designing a questionnaire. These steps were adopted for this study, as listed below:

a. Stipulate the requisite information.
b. Choose the questionnaire type, and how it will be administered.
c. Choose what will be contained in each item.
d. Choose the desired response form.
e. Choose the phrasing of each question.
f. Choose the arrangement of these questions.
g. Choose the outline.
h. Revise the steps and make appropriate revisions.
i. Execute a trial run of the questionnaire

Bryman (2015) laid out guidelines for designing questions to avoid ambiguity. The rules suggest making the questions as short and clear as possible, avoiding ones that are too general, technical or double-barrelled or that require respondents to rely on memory.

The layout should be attractive, with questions in a vertical format, the wording clear and concise, and instructions that are easy to follow. The initial questions ought to be simple to avoid confusing the respondents. Bryman (2015) recommends using questions from previous

studies, the validity of which have already been tested, and which can be modified. Studies pertaining to e-business research would be particularly helpful. This study made use of multi-choice questions to measure one construct and ensure the understanding of the respondents. The construct in question represents the primary characteristic, whereas the variable represents the observable and measurable characteristic.

The following determining factors were considered in the study, along with the design: the ability to support varied Internet browsers and platforms, and the ability to prevent multiple submissions from going through and preventing questionnaires with missing answers from being approved. Other factors include automatic transfer and storage of responses to database, and immediate feedback on completion.

One important part of the questionnaire that must not be left out is the consent letter, which is the biggest influencing factor on the respondents' decision to participate. The consent letter needs to be persuasive, yet succinct, clear and concise. The main purposes of the consent letter include presenting the researcher's name and email, stating the aim and benefits derived from conducting the investigation, and inviting participation. Also included in the consent letter is the policy of the survey, including anonymity, estimated time of completion, voluntariness of participation and instructions for participation (see Appendix III).

The first part of the questionnaire in this study focused on finding out demographic information about the respondents in order to categorize them properly during analysis and correlate the variables moderated with the major factors plaguing hotel e-booking services. This section made use of multiple choice questions to elicit the age, gender, educational background and level of expertise in using the Internet. It was decided to start with personal

factual questions to engage the respondents, using close-ended multiple-choice questions that made analysis easier.

The second part of the questionnaire focused on measuring the participants' adoption behaviour, also known as the dependent variable. This was influenced by the marketing theory propagated by Pavlou and Fygenson (2006) which defined consumer awareness as the stages of adoption of new technology, starting with reluctance, then intention of use, leading to regular usage of the technology that brings about a certain level of satisfaction, and then finally acceptance. This continuous approach was adopted in the assessment of hotel e-booking services. The initial stage involved evaluating the awareness of the respondents regarding the system, and whether they felt the system held any benefits, their intention to use the system and whether they followed this through, then gauging the satisfaction of the customers with the services introduced. The opinions, attitudes and beliefs of the respondents were gauged using five-point Likert Scales, with five scores ranging from strongly agree to strongly disagree. The principle, used to measure people's attitudes by tapping into the affective and cognitive aspects of the attitudes themselves, was developed by Likert (1932). The principal asked participants to respond to many statements, indicating the extent to which they agreed with the statements (see Appendix IV).

The use of the Likert scale format in this study was mainly for its ability to measure attitudes, opinions and behaviour, as well as its ease of use in administration and coding. Its ability to enhance the response rate was also a factor in the choice of the Likert scale. It is reportedly sound, empirically validated, dynamic, able to provide coefficients that are highly reliable and allows for variety in responses (Likert, 1932). This tool has been adopted in earlier studies that depended on both marketing research and social investigations.

The study also used it to study the constructs that influenced the respondents' behaviour about their intentions towards hotel e-booking services, the effects of effort and performance expectancy, perceived risk and trust variables. The study also examined other variables and their effect on behavioural intention, such as habit, price value, social influence, hedonic motivation and facilitating condition. The final issue addressed in the questionnaire was the respondents' level of trust when on the Internet.

Each part of the questionnaire was presented differently for easier understanding, most of the questions being derived from previous studies to increase the validity and reliability of the tool.

Format and Layout

The platform and mode used for distribution was online survey software that allows for advanced design and wider-reaching distribution under the UK Data Protection Act. The software, Smartsurvey.com, featured a captivating layout, security, prevented multiple responses and missing questions for enhanced accuracy, and a skip logic and filtering technique feature that participants could use to skip certain questions based on the answers they gave. It also allowed the research team to compare the data collected, download it and display it on a worksheet for analysis.

The question of voluntary participation, the right to stop or discontinue, confidentiality and anonymity, estimated completion time of 7-11 minutes, and the percentage needed to complete the survey was shown on the page on which the respondent was currently on. Page

numbers and percentage of completion were shown in each frame, acting as a guiding tool for the respondents as they only moved on to the next frame by clicking on each page or frame.

The questionnaire was administered in categories devoid of question numbers, to prevent the respondents from getting discouraged. The questions, however, were displayed clearly, only a few per frame, with radio buttons that they clicked to give their answers. Its programming ensured that incomplete questionnaires could not be accepted, so respondents could not choose what to answer and what to ignore. The software highlighted unanswered questions and gave reminders if the respondent tried to move on without completing all the questions in the frame. Additionally, a non-response option was configured to cater for respondents who did not have an answer to a question or may have been offended at being pushed into answering.

The questionnaire was aimed at leading respondents to provide their experiences, influences, self-reported backgrounds and purchase patterns in travel e-booking. Multiple-choice questions were used in the survey, with five-point Likert scales for most of the questions to indicate the extent to which they agreed or disagreed with the statements given. The 31 questions in the survey were categorized into: demographic information, attitudes toward the Internet, travel e-booking patterns, evaluation of effort and performance expectancy, evaluation of trust and perceived risk, social influence and facilitating conditions, evaluation of habit, price value and hedonic motivation, and the behavioural intention and actual use of e-booking for travel services.

Focus Group

The focus group stage featured exploratory research, an extensive literature exploration and a reflection of the reliability of instruments employed. This is consistent with the suggestions of numerous researchers, including Krueger and Casey (2014) and Morgan (1996), who assert that examination of questionnaire typos, wordings, or event timings, are part and parcel of content validities. This is critical, particularly when the little information that was omitted is discovered.

The arrangement of these groups occurred in two phases. The first phase saw the questionnaires being sent to 14 members of the Business School's academic staff. Here, comments and critical reviews were sought. There were also some personal discussions with the academic staff, geared towards generating more input from the comments and suggestions. Most comments were largely related to understanding of the phrases used in the questions, the presentation of the questions and items sequencing. This yielded suggestions on how the workings of items, overall appearance of the questionnaire, and sequences could be improved.

After minor changes were made to the question formats, the second phase, which featured the actual group discussions, commenced. PhD students were invited to participate, as were Arabic natives, all of whom needed to be familiar with hotel e-booking services. These discussions took place at the Business School. The participants were welcomed and offered refreshments on arrival, following which the sessions began with a brief welcome, and briefing on the topic and ground rules. The participants signed consent forms post-introduction. All participants were allowed the freedom to speak freely and informally during

the focus group discussions, which were specifically designed to encourage open dialogue. To begin with, they were asked to introduce themselves, and state one thing that they had purchased online.

The focus group discussions were organized into eight topics, which related to the outline and design of the questionnaire. The questions were primarily open-ended, and were consistent with the criteria mentioned by Saunders et al. (2009). These questions were intended to address issues such as timing of the questionnaire, coherence of structure and wording of questions. Possible enquiries were also designed to accompany each of these questions. Some of the factors addressed included overall themes, nonverbal behaviour, initial impressions and suggestions for improvement. The think aloud episodes involving peers also yielded actionable suggestions, one of which was a proposal to reduce the length of the cover letter. The justification was to boost the questionnaire's response rate. Additionally, some spelling errors were found and rectified, and some wordings of the questions were also modified to facilitate better understanding. One prime example was a suggestion from a colleague about a question on social influence, "People who influence my behaviour think I should use hotel e-booking service."

The focus groups took 75 to 80 minutes, and the participants were thanked for their participation upon completion.

Translation

The targeted respondents of the questionnaire were Saudi nationals. Therefore, after designing and preparation of the survey, the next step was to translate the questionnaire into the native, Arabic tongue of the likely respondents.

The study employed back translation as the most suitable translation approach. This is a process whereby a translated text is re-translated into its original tongue. It is the most commonly deployed tactic in international research (Brislin, 1970). However, Douglas and Craig (2007) warn about the limitations of this approach, including the difference in the use of language that occurs between mono-lingual and bilingual speakers, and the ability to cover the literal and implied sense of a statement during translation.

The translation process involved a researcher completing the translation, and then handing it over to two Saudi post-doctorate linguistics students to review it before the integration of suggestions made by the students was done. This was followed by a review of the Arabic version by two Arabic language specialists, and the creation of the final version, which included the suggestions of the specialists and students. This version was then made available for a pilot test before it was rolled out (see Arabic translation in Appendix V).

Pilot Study

Choosing to conduct a pilot study prior to embarking on the real survey is considered a wiser approach among researchers, especially if the targeted population is large, thus making it difficult to influence the survey as one would an interview. Conducting a pilot process serves the purpose of allowing for advance refinement of the questionnaire, and also to prevent

errors which may ultimately undermine user involvement, or later impede data analysis (Saunders et al., 2009). Past studies have elucidated some common errors that sometimes occur, which can be detected and resolved in this phase. Some of these include typographic errors, overlapping questions, unreliable workings, length of the survey, omitted or erroneous instructions, unsuitable requests for personal information and absence of motivational tactics (Andrews et al., 2003). This demonstrates that some dimensions may overlap. One observation that emerged straightaway was that integration of PR (principal dimensions) in Internet shopping research reveals a lack of consensus. Evidently, these overlapping dimensions can arouse conflicting results, or even extend the confusion in the literature. These inconsistent findings became more apparent as the pilot study conducted. The survey utilized the four phases of piloting suggested by Dillman (2000). The questionnaire was first revised by a selection of knowledgeable colleagues, who offered necessary insight in ensuring that it was efficient, format appropriate, relevant and complete. It then went through cognitive pre-testing, which featured think-aloud strategies and observations. The third step involved setting up a minor pilot study, which matched the suggested procedures for the main study. Dillman (2007) proposed that a pilot study needs between 100 and 200 respondents to ensure that it is capable of effectively measuring the variable correlations. Here it was also to ensure that the queries included would provide insight on the total time taken for all responses, as well as the response rates. An additional vital component of the final revision process is to check for unintentional typographical errors. This should be done by an independent third party, who has no connection to the survey.

This study adhered to Dillman's (2007) suggestions. Furthermore, the research supervisor reviewed the questionnaire, and proposed the inclusion of filter questions for an awareness variable, and a change of the questionnaire style, by integrating the Likert Scale.

As part of the pilot study, 41 questionnaires were collected over one week in early March 2017 (28 completed, 13 partial). A comments box under every question was implemented to allow respondents to write down any comments they might have. The comments and modifications made included:

- One spelling mistake made by translators;
- Two confusing sentences in Arabic were re-worded;
- Two missing questions (Age and Gender) were missed, because they were not translated. Now, they are included;
- Most respondents used smartphones to answer the questionnaire, and as result, many complained about the appearance of items and the font size. Therefore, we decided to reduce Likert scale points from seven to five;
- A few respondents repeatedly mentioned that they had no credit card, which was why they did not make any online bookings. Therefore, “I do not have a credit card” was included with the question: Please indicate the main reason for not making an online reservation during the period;
- Using of ‘piping option’ to include website name in the heading question. For example:
    - Please indicate the degree of your agreement with each of the following statements regarding your perception of hotel booking websites – (the name of selected brand website appears here);

- For those who had not used a hotel booking website before, it would appear like this:
    - Please indicate the degree of your agreement with each of the following statements regarding your perception of hotel booking websites.

An initial analysis using PLS-SEM was conducted to measure the validity and reliability of current instruments. The result of the measurement model gave an indication of satisfactory result, and therefore, we started collecting the data of main study.

Encouraging Participation in Online Survey

Some scholars, such as Coomber (1997) recommend exploiting a striking subject heading and description when marketing an electronic survey. Such an approach is favoured for its ability to capture attention, while remaining economical on wording. In this study, the e-survey title was placed on every webpage, with a clear background and large font. While Yun and Trumbo (2000) advocate images, colour and animation by virtue of their ability to enhance the survey presentation, Couper et al. (2001) counter that there are demerits in this, because the trade-off is that they increase download times, and may also influence the answers provided by respondents. This e-survey therefore did not fully utilize these features. Dillman (2007) supports this decision by explaining that surveys with multiple designs or graphics often fail to clarify what the respondent needs to do. This may result in higher attrition rates compared to surveys that utilize a more straightforward and plain design.

Rewards, which may take the form of money or vouchers, have been proven to increase e-survey response rates, as well as rates of completion (Church, 1993). However, the value of these rewards could also affect respondents both negatively and positively. For instance,

offering too small a reward could prove inadequate in motivating people to complete the survey. Conversely, if the reward is too high, then people may be attracted to the site simply because of the reward. Furthermore, the likelihood of obtaining an unrepresentative sample increases greatly. To encourage participation, this study offered rewards of 10 SR to charity for every valid and complete e-survey. The rationale was that this would not only encourage participants to complete the survey based on sympathetic or charitable motives but would also encourage participants to distribute the questionnaire based on the same motives. The collection period of the survey ran from 22nd March 2017 until 15th April 2017 - a total of three weeks.

4.4 Reliability and Validity

Researchers have drawn attention to issues of reliability, construct validity and content validity, as they apply to discussions on reliability and validity of the questionnaire (Straub, 1989; Boudreau et al., 2001). Kline (2005) describes reliability as referring to the degree to which an instrument is devoid of measurement errors. Due to the variety in origin of arbitrary errors, a variety of reliability estimates is in existence as well. Of these, the most frequently used is Cronbach's coefficient alpha. Cronbach (1951) explains that Cronbach's coefficient alpha assesses the level of consistency in responses across items which share a single scale or sub-scale. Other reliability estimates include inter-rater reliability and test-retest reliability. Test-retest reliability processes reliability against the degree to which the results are steady across time, while the former assesses the level of agreement among the judges or rates (Anastasi & Urbina, 1997). Kline (2005) offers an insight into how reliability coefficients can be interpreted, as follows: A reliability coefficient of around 90 is regarded as excellent,

while reliably coefficients around 80 are regarded as very good. Reliability coefficients around 70 are classified as adequate.

This research study adopted three major techniques for assessing construct reliability: composite reliability, Cronbach's alpha and construct reliability. In composite reliability assessment, the researcher assesses whether a selection of underlying concepts (latent constructs) are consistent with the measurements adopted for them. On the other hand, construct reliability is assessed through the estimation of the extracted average variance (AVE). This reflects the overall amount of variance in the indicators, which is accounted for by the latent constructs. According to Bagozzi and Heatherton (1994), Hair et al. (1998) and Nunnally and Bernstein (1994), a construct is considered reliable if the Cronbach's alpha is a minimum of 0.70, and its AVE and composite reliability are more than 0.50 and 0.70 respectively.

Gefen et al. (2000) describe content validity as a quantitative examination that checks whether the items chosen for a scale, or questions, are representative of the natural occurrence of the construct being examined. As explained by Saunders et al. (2009), content validity is related to the degree to which a questionnaire's measurement items and questions yield a satisfactory representation of the concept under investigation. Several researchers, including Cook et al. (1979), Cronbach and Meehl (1955) and Saunders et al. (2009) concur that the ruling over what is considered satisfactory coverage can be attained by thoroughly defining the research, making use of insights from expert judges and the literature examined.

Carmines and Zeller (1979:23) explain that construct validity focuses on the degree to which a certain measure relates to other measures in a manner that is consistent with theoretically

derived propositions about the constructs under measurement. Garver and Mentzer (1999) simplify this by explaining that construct validity examines whether a scale measures what it is intended to measure. Churchill and Iacobucci (2005) posit that construct validity is valued the most, but is typically the hardest to attain. There are three distinct steps involved in construct validity (Carmines & Zeller, 1979). The first is the theoretical identification of existing relationships between the constructs. The second step is empirical inspection of the existing relationships between the measures of these constructs. The third step is the interpretation of empirical evidence based on how it elucidates the construct validity of the precise measures.

Two sub-dimensions of construct validity have been proposed and are pertinent to this study: discriminant validity and convergent validity. According to Garver and Mentzer (1999), convergent validity is limited to the extent to which a construct compares with items which are designed to measure it. Churchill and Iacobucci (2005) explain that if all items measure a common construct, it implies that the measure is greatly correlated. This acts as proof of convergent validity. Similarity, discriminant validity is crucial in investigating the construct validity of a quantifier. According to Garver and Mentzer (1999), convergent validity is the degree to which the constituent elements used to measure a variable are specific to that variable, setting it aside from other elements used with other variables. Churchill and Iacobucci (2005) explain that discriminant validity necessitates that a given measurement is not highly correlated with other measures which are supposed to be distinct from the measure under investigation. When the degree of correlation is high, the implication is that this measure is ineffective in isolating a distinct trait.

According to Goodhue (1998), construct validity is typically assessed through a variety of statistical analyses. These include confirmatory factor analysis (CFA) and exploratory factor analysis (EFA). The latter can be differentiated from the former in that it allows the data to determine which items will load onto which factors. By comparison, the former accords this privilege to the researcher, who has control over the loading process. According to Goodhue (1998), it also examines the suitability of the loading processes. The current study assessed both convergent and discriminant validity using PLS-SEM. This is consistent with Hair et al. (2016), who explain that PLS-SEM approaches are often employed in the event of availability of background information or knowledge about the underlying structure of the latent variables, and the associated underlying latent factors. Further detail appears in Chapter Five on data analysis - the evaluation of measurement model (see Section 5.5).

4.4.1 Confirmatory Factor Analysis (CFA)

Although EFA is a very useful preliminary validation tool, it does not provide a complete assessment of the constructs' validity and uni-dimensionality, which is a very important step in theory testing (Hair et al., 2006). Therefore, confirmatory factor analysis (CFA) is needed for further evaluation of the dimensionality and factorial validity of a model's constructs (Byrne, 2013). The main objective of the CFA is to test constructs' validity (Hair et al., 2006). CFA is used to measure how well the model functions with the given data (Byrne, 2013), and can be applied to pre-validated measurement scales (Bhattacherjee & Premkumar, 2004). It is useful in measuring the relationship between a set of observed items and a set of latent factors. It is also used in determining the goodness of fit between an existing theory and newly collected data. The technique is widely used in IS complex constructs to measure

the latent variable (Chin & Todd, 1995). CFA assessment involves convergent validity, which is the extent to which multiple indicators operate in the same manner (Straub et al., 2004). Convergent validity depends on the average variance extracted (AVE) as a base for analysis. The AVE is designed to calculate the explanatory power of all variables of a dimension to the average variation. Therefore, in this study, CFA was used to test and validate the convergent and discriminant validity of data using AMOS-SPSS software. However, this research adopted a highly structured methodology and applied various reliability and validity tests, such as focus groups and a pilot study to minimize researcher bias towards the selected subject.

In addition, Cronbach's alpha is commonly used to measure reliability in terms of internal consistency. In order to have a good internal consistency the result should be 0.7 or higher to indicate adequate convergence (Hair et al., 2006). Therefore, EFA, CFA and Cronbach's alpha, among other techniques, are used to assess the internal consistency of the model and the measurement instruments. Further detail appears the Chapter Five data analysis and evaluation of the measurement model (see Section 5.5).

4.5 Data Analysis

Partial Least Squares, commonly referred to as PLS, is a statistical method for approximating arithmetical measurements of latent variables, based on their associated related variables. This method is based on variance, and offers a structural equation modelling method which is used widely in IS research such as that of Gefen and Straub (1997), Bock et al. (2005), Ringle et al. (2012) and Wasko and Faraj (2005). Wasko and Faraj (2005) proceed to note that this

method is also accepted for purposes of simultaneous assessment of the level of validity and reliability of a measure for latent variables. Urbach and Ahlemann (2010), conducted a series of studies on MIS and PLS, through a systematic analysis of all literature published in peer reviewed journals (ISR and MISQ) dating from 1994 to 2008. These studies revealed that the frequency of use of PLS is increasing. They also discovered that PLS using SEM was used more than CB-SEM (covariance based structural equation modelling) in the journals under study.

Partial Least Squares has no identification challenges. This means that latent constructs need not possess the minimum three indicators, as in the case of CB-SEM techniques, for identification. Furthermore, Gefen et al. (2000) explains that Partial Least Squares (PLS) is especially ideal when the data distribution features are unknown. A good example is when dealing with non-normally distributed data. Urbach and Ahlemann (2010) identify the following merits of choosing PLS over CB for testing SEM models.

- The Partial Least Squares method does not necessitate large samples sizes, as compared to other statistical methods
- PLS is more ideal for theory within the early development stages, as opposed to further stages of theory testing
- PLS can be employed for categorical data. This is because it has no distributional constraints
- PLS can be employed with composite models, possessing a large volume of indicators
- PLS can be applied with both reflective models and formative models.

PLS-SEM also helps to assess the measurement between the construct and the whole model, has fewer processing requirements compared to covariance -based models (Götz et al., 2010), and is recommended for theory building (Chin, 1998). PLS can efficiently predict the relationship between constructs and the whole model, but SEM is designed to test how well the observed data fit the model; it falls short of theory confirmation. It is probable that if the study sample size is large, immature and complex with too many variables, the researcher is likely to select PLS as data analysis software.

By contrast, PLS has received criticism over its measurement accuracy. PLS overestimates measurement loading, which could lead to underestimating a significant relation between constructs. It does not have the ability to test a model using statistical tests; it can only fit given data to models.

4.6 Context of Study

This section offers an overview of the features of Saudi Arabia, because it is the context of the study, particularly with regards to how the kingdom has adopted and implemented e-service systems. Indeed, Saudi Arabia offers an excellent opportunity to assess how developing countries have implemented e-service systems. One of the features of the modern world is that many organizations have adopted e-services as a solution towards cutting costs, enhancing accessibility, improving speed and quality, and improving efficiency in their wide array of services. However, while many countries across the world have adopted e-services, there is currently no universal mode, or off-the-shelf systems to guide them. Therefore, countries generally implement e-services subject to their political, social-cultural, or

economic features. Oftentimes, this is a challenge, rather than an opportunity, because the components of a country's features may undermine the adoption and implementation of electronic commerce processes, as opposed to fostering them.

Ergo, this section will explore the impact of a country's characteristics on the adoption of hotel e-booking services, with specific focus on the Kingdom of Saudi Arabia. This section will delve into the significance of religion, as well as the political features of the Kingdom of Saudi Arabia. Features investigated include the economic, cultural, demographic, climatic, and location data, which could potentially impede or encourage successful implementation and adoption of electronic commerce services.

This section will also lay emphasis on Saudi Arabia's national technology strategy, Information Communication Technology (ICT) development and statistical indicators, and electronic commerce in the country. This is because these factors are also likely to either promote or impede the implementation of e-services. Furthermore, this section will perform an in-depth literature review, to uncover relevant research pertaining to the adoption of technology in Saudi Arabia.

4.6.1 Features

The most significant features that define Saudi Arabia are religious in nature. These are Makkah, and the holy shrines at Medina. The fact that Saudi Arabia is synonymous with the birthplace of Islam contributes to nearly nine million pilgrims coming to the country annually. Additionally, because of its religious significance, Muslims from all over the world turn towards the country during times of prayer, five times every day. This is consistent with their duties as stipulated under the Muslim faith, and the five pillars of Islam. The religious

foundations of the country can be traced back to when the kingdom was first founded, in the early 1930s. The then king, King Abdelaziz bin Abdulrahman, ensured that the laws governing the country were deeply based on Sharia laws and the Quran.

4.6.2 Location

Figure 4-1 Saudi Arabia Map

The Kingdom of Saudi Arabia is located towards the southwest of Asia, extending up to two thirds of the Arabian Peninsula (see Figure 4-1). The World Factbook (2017a) places the Kingdom of Saudi Arabia as the largest country within the Arabian Peninsula, sitting on approximately 2,149,690 square kilometres. The country's landscape consists of plains, mountains, plateaux and deserts. Saudi Arabia has an eastern coast, which is the Arabian Gulf, as well as a western coast, which is the Red Sea, both extending to 2640 kilometres. The topography of the country can be summarised in four main categories: mountainous regions in the south, plains to the south-west, plateaux within the centre of the country, and deserts across the Saudi network.

4.6.3 Demographics

The population of Saudi Arabia is approximately 28,160,273, based on 2016 statistics (The World Factbook, 2017b). This figure encompasses around 18.7 million Saudi Arabian citizens, and 8.5 million non-Saudi Arabian citizens. The gender composition of this population is equitable: 50.9% male, and 49.1% female. According to the World Factbook (2017), Saudi Arabia has a very high population of young people as compared to the older generation. This features 29.4% of people under the age of 14, and only 3% of the populace comprising older people above the age of 65. The median population in the country is 27 years old, owing to the high percentage of young people. This is equal to a median age of 27 for males, and a median age of 26 for females. Consequently, there is a high probability that Saudi Arabian society will be transformed into an information society, particularly because of the high population of young people. This is based on the premise that younger people will acquire new skills, and will be more willing to accept new technologies, relative to their older

counterparts. This is consistent with research findings by Koenig-Lewis et al. (2015) and Ma et al. (2016), who portend that younger adults with higher academic qualifications and incomes are more likely to use e-booking services, compared to their counterparts. The majority of the population (82%) reside in urban areas, which is perceived as a strong motivational factor for the adoption of e-commerce services (The World Factbook, 2017b).This is because people living in urban areas have more access to Internet services compared to those living in rural areas, highlighting Saudi Arabia's digital divide. Additionally, people living in urban areas have a greater propensity for using Internet services. Saudi Arabia also has high literacy levels, which average at 94.7%. Males show higher literacy levels (97%) compared with women (91.1%). These high literacy levels are also likely to encourage the adoption of e-booking services and ease the transition of Saudi Arabian society into an information society.

4.6.4 Culture

Saudi Arabia has a unique culture, which adheres strongly to religion and tribal systems. While there have been strong indications of modernization in Saudi Arabia, many aspects of the community are determined by Islam. These include social norms, traditions, community practices, patterns, as well as obligations. Islam affects Muslims in numerous ways, including their law, their way of life and their theology, making it more than just a religious ideology. Muslims are encouraged to pursue the best options through which they can improve their life, and which are consistent with Islam's principles, ideals and religion. Muslims are also encouraged to adhere to strict rules and to respect others. Islam promotes gender segregation in some cases, both for privacy and safety concerns. Some conservative groups have also

promoted gender segregation, which has resulted in inculcating these ideals into patterns, norms and traditions over the years.

Therefore, culture is a strong determinant of gender segregation in the country. The result is that men and women work separately within the workplace. Gender segregation also affects government offices and departments, and how services are provided across the genders. One of the core features of Saudi Arabia, therefore, is that women are heavily reliant on men. For instance, women cannot drive in the country, but must rely on male relatives for their transportation needs. The Saudi culture also features bias and nepotism, which is mainly because of Saudi kinship and tribal systems. Consequently, E-Systems are perceived as an avenue through which the country will counter corruption in the public sector, while also ensuring equitable justice to all members of society. The Saudi Arabian public has been affected positively by online activities, which could make people more self-confident, open-minded, more self-aware of their characteristics, and less likely to be prejudiced against the opposite gender.

The government of Saudi Arabia has acknowledged the need for recruiting experts from the developed world to provide support to the government in its efforts to modernize and transform the country. However, this comes at a risk, particularly from the fact that western technology may collide with the existing tribal, religious and conservative society. These concerns first came to light during the initial introduction of the Internet in the country. Society expressed their concerns about the likelihood of undesirable content or materials entering the country and permeating into people's homes. One of the primary concerns was pornography. These concerns resulted in a series of consultations and discussions within Saudi Arabia, to find a way forward. Ultimately, the government of Saudi Arabia provided a

solution, in the form of establishing an Internet filter in Riyadh. King Abdulaziz City for Science and Technology bore responsibility for management of this new filter system. The main goal of the system was to prevent access of unacceptable material into the country over the Internet. These observations highlight the significance of culture, religion and traditions of society, which must be considered before introducing e-services, making it easier to align foreign knowledge and western technology with the culture of Saudi Arabia. Consequently, this will facilitate successful implementation of e-services and increase the probability of higher adoption rates among citizens.

However, there are additional obstacles, which could potentially impede the implementation and adoption of e-services in the country. These barriers are linked to a series of organizational and cultural barriers, coupled with technical challenges facing the country, as elaborated below:

There are several technical factors, which could undermine the distribution of Internet services in Saudi Arabia. These include accountability, re-engineering procedures, limited trust and lack of a reliable network, the lack of a modern and unified infrastructure stretching over a wide area, and safety and security concerns about e-services.

Organizational factors could also potentially undermine the implementation of e-services in the country. These include inadequate regulations, judicial requirements, limited number of IT professionals, lack of cooperation between the public-sector agencies and the private sector, lack of adequate technological skills and knowledge among employees, and low awareness of e-services. There is current literature, which suggests that Saudi Arabian customers are often unwilling to transact with suppliers directly. However, Saudi Arabian

societal culture mainly favours face-to-face dealings, despite their satisfaction - or lack of thereof, with e-services.

4.7 Summary

This chapter began with the research philosophy adopted, which follows critical realism. In this study, the researcher employed both a deductive and quantitative approach, coupled with a survey strategy. In relation to the survey strategy, an online-based questionnaire was employed, located at the Smartsurvey website. Before issuing the questionnaires, invitation letters – complete with a cover letter, were duly dispatched. Upon giving consent, respondents began filling in their questionnaires. Instrument and content validity tests were duly conducted after distribution of the questionnaires. The chapter also included critical details such as the sample size, the research area/site, sampling technique and sampling type. The analysis employed Structured Equation Modelling (SEM-PLS), and justification for this use was provided. In addition, the chapter highlighted the current attributes of Saudi Arabia, within the context of this study. This section provided a summary of the infrastructure, IT and climate, alongside an overview of culture and society in Saudi Arabia. It also focused on some of the organizational, technical, social and political aspects that affect the application of electronic services in the country. The subsequent chapter will focus on the data analysis, highlight the features of the respondents, and offer an evaluation of the measurement models and structural models.

Chapter Five Data Analysis

5.1 Introduction

The previous chapter discussed the research methodology. This chapter illustrates the empirical testing outcomes and provides a discussion and report of data analysis generated from experimental surveys comprising 465 participants, all Internet users from Saudi Arabia. After the creation of empirical testing processes, reported in the fourth chapter, this chapter proceeds to generate a thorough analysis of the process of hypotheses testing. The chapter expounds two main aspects of model examination: the structural model and the measurement model. In the beginning, a summary of the sample demographic features and the data screening process will be provided. The primary section of data analysis will elaborate on model testing, through structural and measurement models of PLS-SEM (Partial Least Squares Structural Equation Modelling). Examination of the various measures will be discussed within the measurement model. Furthermore, measure validity and reliability will also be discussed within the measurement model. Hypothesis testing will be incorporated and examined under the structural model.

5.2 Process of Data Screening

Data screening was carried out before the analysis stage, on the raw data generated from feedback gathered from the experimental surveys. Garfield (2005) notes that the process of data screening is a crucial step prior to data analysis to prevent erroneous results and findings. Furthermore, Levy (2006) explains that data screening is a crucial step in data analysis, due to four key reasons. First, it provides an avenue for investigating the accuracy of the raw data. Secondly, it allows for examining outliers or extreme cases, and fixing these issues. Thirdly, data screening presents a platform for treating missing or omitted data figures. Fourth, data screening allows the researcher to manage response set challenges and problems. The following subsections will discuss the major issues of data screening, including univariate normality, missing data and outliers (Hair et al., 2010).

5.2.1 Missing Values

Missing values present one of the major problems of data analysis, because of the significant challenges they present on validity, reliability and generalizability of study results (Tabachnick & Fidell, 2007). To mitigate the risk of missing values, this study employed SPSS Missing Value Analysis, to ensure that the issue of missing values was not reported in this study. Missing data presents two main challenges. First, lost data will reduce the accuracy of implied relationships in a data set by a statistical test. Secondly, explaining that bias will come up when it comes to estimating parameters (Roth, 1994; Hair et al., 1998). However, because this study is structured around the online survey research design, missing data issues were resolved during data collection. This is because the online survey structure required each respondent to answer every question before submitting the survey. However, if

a respondent chose to leave the survey blank for one reason or another, this survey was sorted as incomplete. The online survey setting allowed such respondents to complete the survey at a later data. Consequently, there was 529 surveys, which were sorted as completed, and 433 surveys which were only partially completed. However, this completed questionnaire figure decreased to 398 from 529, after eliminating cases, which did not meet the targeted population, and responses to questions on common bias method. This was elaborated in the sampling section of Chapter four. The following criteria were used:

- The respondent was below the required age of 18
- The respondent was not a national of Saudi Arabia
- The respondent was currently residing abroad for academic or business reasons
- The respondent failed to answer the questions on common bias method.

This allowed the researcher to assign some of the missing values from the incomplete questionnaires, to expand the sample size. The process revised 287 questionnaires, which were then summed up in the completed and cleaned questionnaires (398). In total, there were 720 cleaned questionnaires, as elaborated in Table 5-1 below:

Table 5-1 Sampling Results

Type		**Cleaned**	**RMV[3]**	
Complete Survey	529	398	NA	398
Partial Complete Survey	433	287	67	67
Total	962	720		465

A number of researchers argue that it is preferable to consider the simple solution of deleting 'offending cases or variables', before going ahead and choosing a method for assigning missing data (Tabachnick & Fidell, 2007; Meyers et al., 2006). According to these authors, a researcher may discover that deleting these cases or variables may mitigate the degree of concentration of missing data. The application of SPSS Missing Value Analysis showed that there were 366 cases, which could be categorised as offending cases (cases which are missing more than 15% per case). These offending cases were all deleted. The study then used Little's MCAR examinations and Missing Value Analysis MVA to explore the patterns of missing data from the 465 cases remaining. This revealed a range of 0.2% to 13.9% for missing values among the quantitative variables. To reduce the risks associated with assigning missing values, the Missing Value Analysis was employed once more, to make sure that the issue of missing values was not presented. Univariate statistics showed less than 5% of missing values among all variables. These missing values and cases were borne from the 67 partially filed questionnaires, which were summed up for imputation. Additionally, the missing figures arose from some variables and items, which appeared at the end of the

[3] Replacing Missing Value

questionnaire, such as gender and age. These revealed up to 13.9% of missing data (values) (appended).

When missing values are less than 0.05, most imputation methods will produce the same results (Cohen et al., 2003; Tabachnick & Fidell, 2007; Meyers et al., 2006). However, when the values are less than 0.05 and random, the Expectation Maximization (EM) method is recommended (Hair et al., 2010; Cohen et al., 2003; Tabachnick & Fidell, 2007). The researchers advocated this method as the ideal imputation method to resolve the missing values within this context. However, before using the Expectation Maximization method, the researcher needs to be aware if the missing data is random or missed entirely. To test whether the missing data is MCAR (missing completely or at random), Little's MCAR test was used to test randomness (Little & Rubin, 2002). The outcome of this test showed insignificant absence of entire randomness (sig = 0.992, Chi Square =256.802, and DF=238). This meant that the study was unable to reject the null hypothesis, and therefore, the alternate hypothesis that the data was completely missed at random was accepted. This is as represented in Table 5-2 below:

Table 5-2 Little's MCAR Test

FR 1	FR 2	FR 3	FR 4	O R1	O R2	O R3	O R4
2.9525	2.2151	2.6290	2.3763	2.6696	2.8625	2.2538	2.4151
a. Little's MCAR test: Chi-Square = 256.802, DF = 238, Sig. = .192							

EM depends on the maximum likelihood (ML) estimation and covariance matrix. This method was used, based on three key strengths. First, Hair et al. (2010) notes that this method stands out as effective in cases involving non-random missing data. Secondly, EM is the most widely used method with SEM (Meyers et al., 2006; Hair et al., 2010). Thirdly, because it is

structured on the covariance matrix, the EM method offers the least analysis bias, relative to other methods of imputation (Tabachnick & Fidell, 2007).

There is an alternative model for checking adequacy of sampling. This method is referred to as the Kaiser-Meyer Olkin measure (KMO), which is equated as correlation between variables ^{2} : partial correlation among variables ^{2} (Kaiser, 1970). The values of the Kaiser-Meyer Olkin measure vary between 0 and 1. A value which falls closer to 0 indicates that there is diffusion in the correlation between variables. On the other hand, a value which falls closer to 1 shows that there is compact correlation. A value which falls closer to 1 also shows that factor analysis is ideal. However, while Kaiser (1970) advocates for, and recommends accepting a KMO value which is greater than 0.5, other scholars, such as Hutcheson and Sofroniou (1999) viewed in Field (2009:695), argue that a Kaiser-Meyer Olkin value which falls between 0.5 and 0.7 is average. The authors also suggest that values of 0.7 through to 0.8 fall within the 'good' category, while those greater than 0.8 but equal to or less than 0.9, are classified as very good. Values greater than 0.9 are classified as excellent. In this study, the KMO was 0.953. This validates the sufficiency of the sample selected for factor analysis. Furthermore, the sample also records a significant value of 0.000 ($p<001$), using Bartlett's test of sphericity. This is illustrated in Table 5-3 below.

Table 5-3 KMO measure and Bartlett's Test for Sphericity

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.953
Bartlett's Test of Sphericity	Approx. Chi-Square	16674.942
	df	1891
	Sig.	0.000

5.2.2 Normality

Meyers et al. (2006) points out that during multivariate analysis, the shape of the distribution comprising continuous variables should match that of a normal distribution in univariate analysis. To assess normality, the researcher can use either the univariate or the multivariate levels. According to Hair et al. (2010), the degree of severity for non-normal distributions is subject to the sample size, and the offending distribution's shape. With respect to sample size, moving away from normality with a sample size of less than 50 (small sample size) may result in a significant impact on the outcome. However, this departure can be ignored when the sample size is greater than 200.

The shape of a distribution can be calculated using measures of skewness and kurtosis. Meyers et al. (2006;68) define skewness as a measurement of the degree of symmetry for a given distribution. Therefore, a skewed variable will have its mean away from the mean of the distribution, either to the left or to right. Kurtosis, on the other hand, is defined as a measure of the peak of any given distribution. Here, a distribution's peak may be too flat, or too peaked. Skewness and kurtosis can be adopted to measure whether the data used is normally distributed. As elaborated by Lei and Lomax (2005), cut-off for skewness and kurtosis ranges from -2.0 and +3.5, in absolute terms. Most researchers categorize absolute values for these statistics, which fall below 1.0 as slightly non-normal. At the same time, absolute values between 1.0 and 2.3 are categorised as moderately non-normal, and those above 2.3 as severely non-normal.

According to Lei and Lomax (2005), a small deviation from normality has little impact on parameter estimation when the Maximum Likelihood estimation method is used.

Furthermore, Michon and Chebat (2008) suggest that when Maximum Likelihood estimation is employed in Structural Equation Modelling, it shows a higher degree of tolerance to non-normality, particularly with large sample sizes. This has been collaborated by Hair et al. (2010), who concur that non-normality has insignificant influences on a large sample size, larger than 200.

The current study utilised sample size of n=465. The Maximum Likelihood estimation method was selected as the ideal method. Based on the recommendations by Cramer and Howitt (2004) and Doane and Seward (2011), this study used ± 1.96 as the absolute values of the threshold for non-normality assessment. Skewness and kurtosis statistics indicated that all values fell within the above threshold, except EE1, EE4, EE3, PE2, PE1, SI3, SI1, BI1, FC2, PV1, BI2, and SOR3. These values had slight deviations from normality. However, as previously noted, with a sample size greater than 200, and when using ML estimation method, these slight deviations have insignificant effects on the research outcomes.

This study also used a probability plot to examine the degree of normality, as suggested by Hair et al. (2010). According to the authors, when the values under investigation fall on a diagonal with only slight deviations from the diagonal, the remaining values are observed to show non-normal distribution (see Appendix II).

5.2.3 Outliers

Outliers have been defined as values or observations which possess unique features that are conspicuously different from the features of other values or observations (Hair et al., 2010). An outlier can also be described as a case, which has an extreme value of a given variable, or a case which has a strange combination of scores from several variables, which result in

misleading statistics. These are described as univariate outliers and multivariate outliers, respectively (Tabachnick & Fidell, 2007). There are four main causes of outliers. They can arise because of sampling errors, incorrect or erroneous data entry, erroneous codification of missing data, or may be due to unusual observations, explicable by the researcher, or observations which may lie within the acceptance range of values, for each variable (Tabachnick & Fidell, 2007; Meyers et al., 2006).

Outliers can be explored in a multivariate context or in a univariate context. The latter involves cases, which possess extreme values for a singular variable. Within the context of univariate outliers, this research searched for outliers by changing the values to standard z-scores. This approach has been recommended in numerous studies, including Tabachnick and Fidell (2007), Hair et al. (2010) and Tinsley and Brown (2000). As elaborated by Tabachnick and Fidell (2007:73), the theory behind this approach is that cases which have standard z scores exceeding 3.29 ($p<0.001$) are classified as likely outliers. Within this study, this approach revealed that a total of four variables had z scores exceeding 3.29. These were TR3, SI1, FC1 and SI3. The figures, which were consistent with outlier behaviour, were 6, 7, 6 and 8, respectively. Dealing with outliers relies on data examination variate. However, Cohen et al. (2003:128) recommend that if the number of outliers is low, such as only 1 or 2% of the sample, and provided that these outliers are not major, it is best to just leave them alone. In this study, the highest concentration of outliers for a single variable was eight cases, for variable SI1. This only represents 1.7% of n. Therefore, based on recommendations by Cohen et al. (2003), this occurrence is inconsequential, and can therefore be ignored.

5.2.4 Multicollinearity

Table 5-4 Variance Inflation Factor

Items	VIF	Items	VIF	Items	VIF	Items	VIF
BI1	2.554	HA1	1.777	PRY2	1.644	SOR3	1.439
BI2	2.758	HA2	1.883	PRY3	1.458	SR1	1.738
BI3	2.748	HA3	1.424	PV1	1.183	SR2	1.738
EE2	1.412	HM1	2.777	PV2	1.168	SYC1	3.147
EE3	1.426	HM2	3.483	PV3	1.142	SYC2	2.83
EE4	1.484	HM3	3.312	SCR2	1.427	SYC3	2.281
FC1	1.482	PE1	1.775	SCR3	1.427	TM1	1.467
FC2	1.482	PE2	1.709	SI1	1.338	TM2	1.622
FR1	1.734	PE3	1.187	SI2	1.25	TM3	1.62
FR2	1.274	PR2	1.336	SI3	1.242	TM4	2.014
FR3	1.809	PR3	1.417	SOR1	1.571	TR2	1.595
PRY1	1.83	PR4	1.496	SOR2	1.539	TR3	1.595

Examination of multicollinearity is one of the major concerns when it comes to measurements applied in SEM. An initial correlation matrix showed a lack of any correlation coefficients between the variables extending past 0.9. Tabachnick and Fidell (2007:.88), and Hair et al. (2010) recommend that a correlation coefficient of 0.9 shows significant multicollinearity problems. The correlation matrix revealed that all correlation coefficients were >0.8. The study further investigated for multicollinearity, using Variance Inflation Factor (VIF) values. These values were calculated and later inspected, alongside their tolerance values, to investigate multicollinearity. According to Hair et al. (2010:201), tolerance is defined as the "degree of variability of a selected independent variable, which cannot be explained by other independent variables." Variation Inflation Factor values of >10, and with tolerance values of <0.10, reveal possible violations of multicollinearity (Hair et al., 2010:205). This study employed multiple regression analysis to calculate VIF values.

The results showed that all the values were below 5. The regression analysis also showed that there was no tolerance value, which was, less than 0.1 (see Table 5-4). Consequently, based on VIF and correlation matrix, multicollinearity was disregarded as an issue in the current study.

5.3 Respondent Profiles

Table 5-5 below shows the demographics of e-bookers. As illustrated in this table, most hotel services e-bookers are males, representing 71.5%, as compared to women, who represent 28.5%. Age-wise, most respondents were between the ages of 25 and 44 years. This group represented 75.7% of the total respondents. This was followed by the 18-24 age group, which formed 13.2%. The remaining 10.4% was comprised of persons between the ages of 55 to 70. This revealed that the bulk of hotel services e-bookers were middle-aged males, between the ages of 25 and 44. Education-wise, most hotel e-bookers had attended undergraduate schools, and had attained bachelor's degrees (51.5%). Hence most of these e-bookers were either professionals or graduates, these two groups forming 82.7% of hotel services e-bookers. This indicates that most e-bookers were well-educated. Most e-bookers were also married (75%) and formed from the middle-income class (see Table 5-5 below).

Table 5-5 Respondents Characteristics

Category		Frequency	%	Category		Frequency	%
Gender	Male	287	71.5	**Time spent on Internet**	All Day	41	10.3
	Female	114	28.5		Less than 18 hours	31	7.8
	Unknown	64			Less than 12 hours	85	21.4
					Less than 6 hours	138	34.7
Age	18-24	53			Less than 3 hours	89	22.4
	25-34	191			Less than 1 hour	14	3.5
	35-44	113					
	45-54	35					
	55-70	9					
Matrimonial Status	Single	91	22.9	**Computer Skills**	Very good	145	36.4
	Marriage	298	74.9		Good	160	40.2
	Widow	1	0.3		Fair	81	20.4
	Divorced	8	2		Poor	12	3.0
Education	High School/or less	31	7.8	**Have you ever booked a hotel room in the last 12 months?**	Yes	337	84.7
					No	61	15.3
	Diploma	38	9.5				
	Bachelor	205	51.5				
	Master	93	23.4	**Did you make this booking through the Internet?**	Yes	333	98.8
	Doctorate	31	7.8		No	4	1.2

Category		Frequency	%	Category		Frequency	%
Employment Status	Public sector	215	54	**Please indicate the main reason for not making an online reservation during the period**	I prefer traditional reservation methods through phone, walk-in, or travel agency.	23	35.4
	Private sector	60	15		I do not know how to use hotel e-booking services	12	18.5
	Own Business	24	6		I was advised not to use the website	0	0.0
	Unemployed	99	25		I am worried about the risks involved in website transactions	9	13.8
Monthly Income	Less than 4,999 SR	9	30		I have not stayed in a hotel	5	7.7
	5000 - 9,999 SR	82	27.4		I do not have a credit card	11	16.9
	10,000 – 14,999 SR	104	34.8		Other	16	24.6
	15000 - 24,999 SR	80	26.8	**Which Website do you mostly use?**	Booking.com	279	83.8
	25,000 - 44,999 SR	18	6		Hotel.com	7	2.1
	More than 45,000 SR	6	2		Agoda.com	8	2.4
Region	Riyadh	166	41		Expidia.com	8	2.4
	Mecca	66	16		Orbitiz.com	0	0
	Qassim	58	14		Travelocity.com	0	0
	East Region	48	12		CheapTicket.com	0	0
	Madina	19	4		Priceline.com	9	2.7
	Assir	18	4		Hotwire.com	1	0.3
	Hail	18	4		Other	21	6.3

Category		Frequency	%	Category		Frequency	%
	Najran	3	1				
	Tabuk	2	.5				
	Aljouf	2	.5				
	Jazan	0	0				
	Albaha	0	0				
	Alhudod	0	0				

The respondents were distributed across the Kingdom of Saudi Arabia's regions. More specifically, respondents were from Mecca, Riyadh, Madinah, Qassim, Eastern Region, Tabuk, Asser, Najran, Hail and Aljouf. Most hotel services e-bookers resided in Riyadh, up to 41% of bookers coming from this region. Mecca, which had 16% of hotel services e-bookers, and Qassim, which had 14% of e-bookers, followed this. The Eastern Region held 12% of e-bookers, while Tabuk and Aljouf held 0.5% each. This indicates that most citizens of Saudi Arabia who purchase hotel services online hail from the west and middle sections of the kingdom. This is illustrated in Figure 5-1 below:

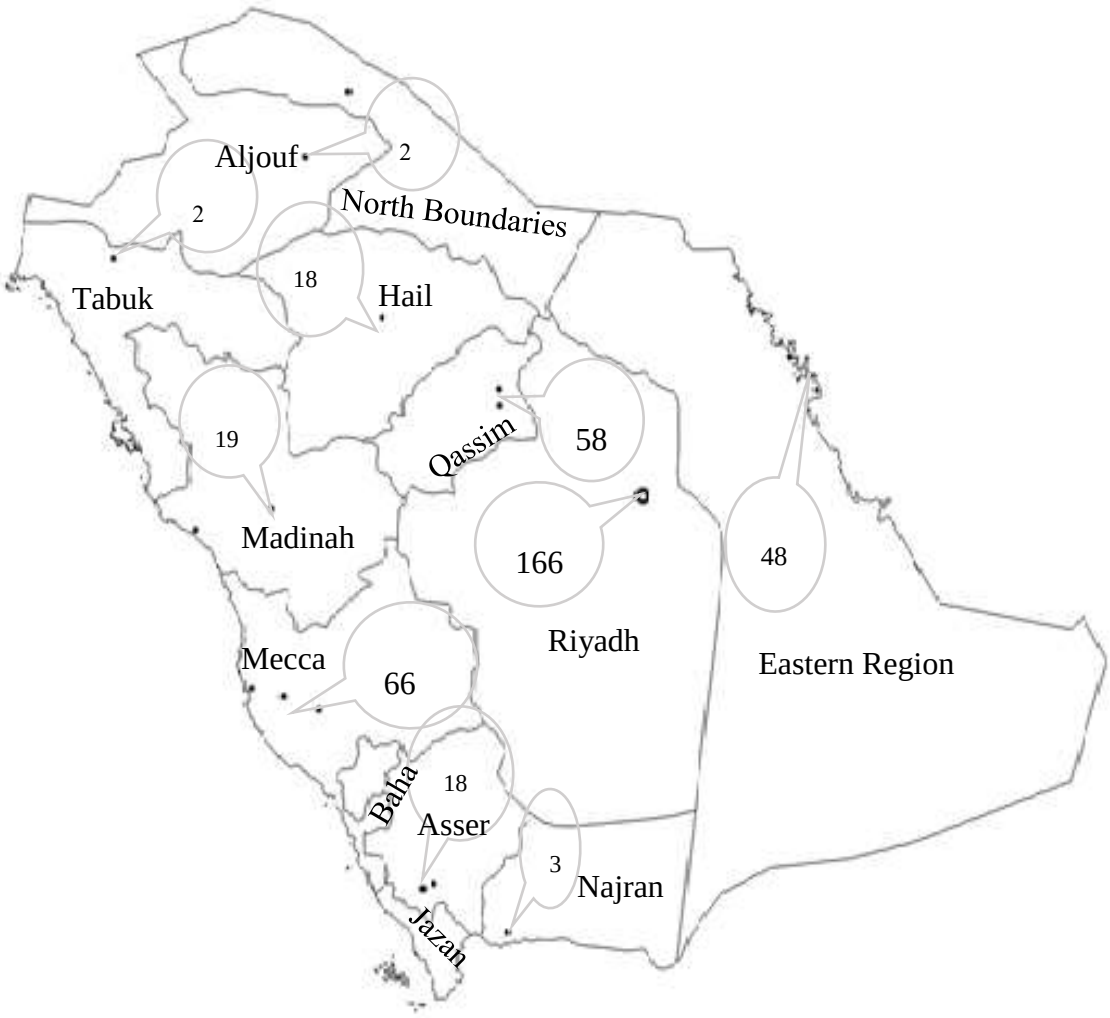

Figure 5-1 Geographical Distribution of Respondents

The above results suggest that survey questionnaires were well distributed to a wide range of regions in Saudi Arabia. This is critical to this study, because it confirms that the online survey was adequately dispersed to cover the entire country, hence providing a credible basis for generalization of the study results as representative of the entire Saudi Arabia population of e-bookers.

A large portion of Saudi Arabians (76.6%) had acquired very good to excellent computer competencies. 56.1% of this group spent between three to six hours each day on the Internet,

up to 84% of them having previously made online reservations for hotel accommodation. www.Booking.com was the most popular website, with 83% usage among those who had already made reservations in 2016/2017.

For the remaining 15% who were yet to make reservations, 35.4% explained that the primary causal factor was that they preferred making traditional reservations by phone, or by walking into a travel agency. A further 18.5% did not know how to make reservations using the booking website, and 16.9% did not have credit cards. The rest were mainly worried about the risks of making transactions through a website.

Employment wise, 54% of survey respondents were in full-time employment in the public sector. The remaining 25% were unemployed, while 15% and 6% were employed in the private sector or engaged in self-employment, respectively (see Table 5-5).

In closing, this study revealed that most e-bookers were middle-aged married males, between the ages of 25 and 44. Many were well- educated, with at least a high school diploma. Additionally, most them had secure employment in the public sector, earning a medium to high income.

5.4 Partial Least Squares- Structural Equation Modelling

PLS-SEM was applied to analyse the main research, since the data within this study is non-normally distributed (Hair et al., 2017; Gefen et al., 2000). SEM-PLS was employed to illustrate validation of both the structural and measurement models. Within the scope of the measurement model, this study assessed the reliability and validity of the study items and concepts. The structural model comprised hypotheses testing, which will, in turn, be discussed, based on statistical comparison of path coefficients within the sample, degree of significance of the paths and the categorical moderator effect.

5.5 Evaluation of Measurement Models

Analysis of reflective measurement models includes three main items. The first is composite reliability, which is used to assess the reliability of individual indicators, and the degree of internal consistency. The second test is convergent reliability, which is assessed using average variance extracted (AVE). The third test is discriminant validity, including the Fornell-Larcker criterion and employment of cross loadings. The subsequent sections illustrate each of the criteria used to evaluate the reflective measurement models (see Table 5-6).

Table 5-6 Result of Measurement Model Evaluation

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Behavioural Intention	0.894	0.896	0.934	0.825

Effort Expectancy	0.730	0.732	0.848	0.650
Facilitating Conditions	0.726	0.731	0.879	0.785
Financial Risk	0.836	0.837	0.901	0.753
Habit	0.780	0.783	0.872	0.695
Hedonic Motivation	0.913	0.925	0.945	0.851
Performance Expectancy	0.778	0.798	0.899	0.817
Perceived Risk	0.803	0.810	0.871	0.628
Privacy Risk	0.755	0.758	0.891	0.803
Price Value	0.564	0.575	0.772	0.531
Social Influence	0.650	0.708	0.801	0.577
Social Risk	0.752	0.792	0.856	0.665
Service Risk	0.788	0.795	0.904	0.825
Psychological Risk	0.891	0.893	0.932	0.821
Time Risk	0.776	0.779	0.870	0.691
Trust Belief	0.760	0.761	0.893	0.807

5.5.1 Internal Consistency

Internal consistency is typically the first criterion to be analysed. The original criterion for evaluating internal consistency was Cronbach's alpha. This measure generates an estimate of reliability, subject to the inter-correlations within the indicator variables under study. However, Hair et al. (2016) proposed an alternative measure of internal consistency - composite reliability. As opposed to inter-correlations of observed variables, this measure focuses on the differences in the outer loading of indicator variables. Composite reliability ranges from 0 and 1. Lower values indicate lower reliability levels, and vice versa. Composite reliability is typically deduced in the same manner as Cronbach's alpha. This means that values, which fall between 0.6 and 0.7, are considered acceptable when conducting investigative research. However, Hair et al. (2006) note that in the more advanced phases of exploratory research, measurements between 0.7 and 0.9 are considered sufficient.

Table 5-7 Composite Reliability

	Composite Reliability
Behavioural Intention	0.934
Effort Expectancy	0.848
Facilitating Conditions	0.879
Financial Risk	0.901
Habit	0.872
Hedonic Motivation	0.945
Performance Expectancy	0.899
Perceived Risk	0.871
Privacy Risk	0.891
Price Value	0.772
Social Influence	0.801
Social Risk	0.856
Service Risk	0.904
Psychological Risk	0.932
Time Risk	0.870
Trust Belief	0.893

According to Hair et al. (2016), the actual reliability falls between the composite reliability measure which represents the upper boundary, and Cronbach's alpha, which represents the lower boundary. While the latter is considered more conservative, composite reliability typically overvalues the degree of internal consistency reliability. This causes a comparatively higher reliability estimate compared with Cronbach's alpha. Considering the above, the data used satisfies the test for internal consistency reliability (see Tables 5-7 & 5-8).

Table 5-8 Cronbach's Alpha

	Cronbach's Alpha

Behavioural Intention	0.894
Effort Expectancy	0.730
Facilitating Conditions	0.726
Financial Risk	0.836
Habit	0.780
Hedonic Motivation	0.913
Performance Expectancy	0.778
Perceived Risk	0.803
Privacy Risk	0.755
Price Value	**0.564**
Social Influence	**0.650**
Social Risk	0.752
Service Risk	0.788
Psychological Risk	0.891
Time Risk	0.776
Trust Belief	0.760

5.5.2 Convergent Reliability

Hair et al. (2016:118) define convergent validity as "the extent to which a measure correlates positively with alternative measures of the same construct". When it comes to analysing convergent reliability of reflective concepts, researchers focus on the average variance extracted (AVE) method and the outer loadings of indicators.

5.5.3 Validity of Indicators

As previously noted, composite reliability and convergent reliability focus on the outer loadings of indicators. Outer loadings on a concept or construct indicate a high amount of commonality between indicators. Indicator reliability commonly refers to the size of outer loadings. On the lower side, these outer loadings or indicators should be substantial. One of the applied rules of thumb is that when standardized, the outer loadings should have a value

of 0.708 or more. This is mainly because a substantial outer loading may also be considerably weak. Indicators, whose outer loadings fall between 0.4 and 0.7 are considered for exclusion from the scale, provided their removal will result in an increase of the composite reliability, or an increase in the AVE, to a value higher than the threshold value. Some scholars also state that indicators whose outer loading values are below 0.4 should be removed from the constructs (Bagozzi et al., 1991; Hair et al., 2011). The table below (Table 5-9) summarises the outer loadings of indicators in this study.

Table 5-9 Outer Loadings

	BI	EE	FC	FR	HA	HM	PE	PR	PRY	PV	SI	SOR	SR	SYC	TM	TR
BI1	**0.898**															
BI2	**0.912**															
BI3	**0.915**															
EE2		**0.785**														
EE3		**0.809**														
EE4		**0.823**														
FC1			**0.897**													
FC2			**0.874**													
FR1				**0.878**												
FR2				**0.856**												
FR4				**0.869**												
HA1					**0.856**											
HA2					**0.851**											
HA3					**0.792**											
HM1						**0.899**										
HM2						**0.939**										
HM3						**0.929**										
PE1							**0.923**									
PE2							**0.884**									

	BI	EE	FC	FR	HA	HM	PE	PR	PRY	PV	SI	SOR	SR	SYC	TM	TR
PR1								**0.782**								
PR3								**0.765**								
PR4								**0.835**								
PR5								**0.787**								
PRY1									**0.905**							
PRY2									**0.888**							
PV1										**0.779**						
PV2										**0.663**						
PV3										**0.740**						
SI1											**0.780**					
SI2											**0.640**					
SI3											**0.844**					
SOR1												**0.815**				
SOR2												**0.870**				
SOR3												**0.757**				
SR1													**0.919**			
SR2													**0.897**			
SYC1														**0.927**		
SYC2														**0.905**		
SYC3														**0.886**		
TM2															**0.827**	

	BI	EE	FC	FR	HA	HM	PE	PR	PRY	PV	SI	SOR	SR	SYC	TM	TR
TM3															**0.803**	
TM4															**0.862**	
TR2																**0.901**
TR3																**0.895**

From the table above, four items have been eliminated, because of weak outer loadings. Their expulsion was necessary to enhance the degree of reliability of associated constructs. The following items were also eliminated: FC3, TR1, PE3, FC4, and EE1. Additionally, loading factors linked to SI2 and PV2 were below 0.7. These were however maintained, because their removal would not increase the reliability of associated constructs, in line with Hair et al.'s (2016) recommendation.

5.5.4 Average Variance Extracted

The above is a commonly used measure to determine convergent validity of a construct. Hair et al. (2016:112) define average variance extracted as the mean or average of the square value of indicator loadings related to a construct. A value of 0.5 means that the construct describes more than 50% of its indicator's variances, on average. On the other hand, a value of less than 0.5 indicates that on average, the construct does not adequately explain its indicator's variances. Instead, there is more remaining as error items than is explained by the related construct. Table 5-10 (below) highlights that the lowest AVE was 0.531. Therefore, this data fulfils convergent validity.

Table 5-10 Average Variance Extracted (AVE)

	Average Variance Extracted (AVE)
Behavioural Intention	0.825
Effort Expectancy	0.650
Facilitating Conditions	0.785
Financial Risk	0.753
Habit	0.695
Hedonic Motivation	0.851
Performance Expectancy	0.817
Perceived Risk	0.628
Privacy Risk	0.803
Price Value	0.531
Social Influence	0.577
Social Risk	0.665
Service Risk	0.825
Psychological Risk	0.821
Time Risk	0.691
Trust Belief	0.807

5.5.5 Discriminant Validity

Hair et al. (2016: 210) define discriminant validity as a measure of the degree to which a given construct is unique from other constructs, measured using empirical criteria. Therefore, upon determination of discriminant validity, this essentially means that the given construct is distinct, and can capture events which are not characterised by other constructs within the model.

Researchers have, over time, relied on two main measures of discriminant validity. The first measure is through cross-loading, which is traditionally the first method of evaluating

discriminant validity. In this method, the outer loadings of a selected indicator should be larger relative to its cross-loadings on other concepts.

The second main measure is the Fornell-Larcker criterion. According to Fornell and Larcker (1981), this criterion holds that the average variance extracted for each underlying concept or construct should be larger than the square of the highest construct's correlation with any other underlying construct. Therefore, the researcher should compare the square root of the average variance extracted with the degree of correlations between underlying constructs. Furthermore, the square root of the average variance extracted should be larger than both the vertical and horizontal cross-correlations. The Fornell-Larcker criterion and cross-loadings are as highlighted in Table 5-11 below. 13 items were removed to meet the discriminant validity criterion. The removed items were SCR1, PR2, SCR3, SCR2, PER2, PER1, PER4, PER3, FR3, PER5, PRY3, TM1 and HA4.

Tables 5-11 and 5-12 (below) show that each value satisfies the discriminant validity measurement test. Each of these values is larger than any given underlying cross-correlation.

Table 5-11 Cross Loadings

	BI	EE	FC	FR	HA	HM	PE	PR	PRY	PV	SI	SOR	SR	SYC	TM	TR
BI1	**0.898**	0.436	0.463	-0.420	0.632	0.548	0.597	-0.415	-0.289	0.572	0.295	-0.302	-0.349	-0.524	-0.355	0.605
BI2	**0.912**	0.454	0.438	-0.416	0.708	0.552	0.555	-0.455	-0.322	0.577	0.398	-0.284	-0.319	-0.489	-0.378	0.612
BI3	**0.915**	0.447	0.485	-0.461	0.709	0.621	0.581	-0.467	-0.355	0.587	0.405	-0.300	-0.379	-0.558	-0.370	0.644
EE2	0.309	**0.785**	0.512	-0.311	0.324	0.279	0.342	-0.288	-0.153	0.259	0.264	-0.185	-0.280	-0.365	-0.256	0.382
EE3	0.385	**0.809**	0.525	-0.332	0.345	0.339	0.478	-0.316	-0.171	0.276	0.282	-0.241	-0.297	-0.362	-0.277	0.419
EE4	0.485	**0.823**	0.486	-0.348	0.406	0.409	0.409	-0.329	-0.178	0.443	0.228	-0.320	-0.337	-0.435	-0.326	0.411
FC1	0.471	0.505	**0.897**	-0.409	0.420	0.301	0.477	-0.404	-0.230	0.315	0.320	-0.305	-0.352	-0.488	-0.321	0.527
FC2	0.429	0.616	**0.874**	-0.376	0.424	0.333	0.432	-0.346	-0.199	0.340	0.193	-0.280	-0.279	-0.416	-0.313	0.437
FR1	-0.417	-0.355	-0.393	**0.878**	-0.384	-0.367	-0.353	0.708	0.462	-0.242	-0.219	0.365	0.526	0.604	0.473	-0.458
FR2	-0.425	-0.369	-0.394	**0.856**	-0.384	-0.321	-0.344	0.711	0.505	-0.306	-0.249	0.381	0.604	0.655	0.444	-0.489
FR4	-0.397	-0.343	-0.368	**0.869**	-0.400	-0.373	-0.313	0.659	0.519	-0.291	-0.199	0.338	0.598	0.674	0.463	-0.470
HA1	0.675	0.447	0.511	-0.454	**0.856**	0.562	0.477	-0.415	-0.258	0.451	0.289	-0.177	-0.389	-0.530	-0.342	0.585
HA2	0.575	0.367	0.353	-0.341	**0.851**	0.570	0.370	-0.373	-0.286	0.424	0.262	-0.102	-0.273	-0.372	-0.291	0.480
HA3	0.624	0.294	0.314	-0.317	**0.792**	0.536	0.379	-0.332	-0.251	0.482	0.308	-0.118	-0.200	-0.354	-0.229	0.472
HM1	0.506	0.410	0.334	-0.340	0.553	**0.899**	0.351	-0.387	-0.259	0.431	0.204	-0.142	-0.270	-0.385	-0.343	0.400
HM2	0.640	0.409	0.350	-0.401	0.636	**0.939**	0.427	-0.454	-0.321	0.500	0.278	-0.187	-0.311	-0.446	-0.388	0.489

	BI	EE	FC	FR	HA	HM	PE	PR	PRY	PV	SI	SOR	SR	SYC	TM	TR
HM3	0.592	0.366	0.303	-0.380	0.650	**0.929**	0.363	-0.432	-0.312	0.483	0.234	-0.187	-0.269	-0.392	-0.385	0.451
PE1	0.614	0.453	0.481	-0.383	0.497	0.392	**0.923**	-0.379	-0.261	0.471	0.295	-0.241	-0.365	-0.514	-0.355	0.650
PE2	0.528	0.473	0.447	-0.315	0.388	0.356	**0.884**	-0.344	-0.186	0.350	0.305	-0.285	-0.313	-0.427	-0.330	0.518
PR1	-0.372	-0.257	-0.266	0.524	-0.346	-0.368	-0.306	**0.782**	0.607	-0.259	-0.153	0.387	0.497	0.484	0.638	-0.418
PR3	-0.350	-0.318	-0.315	0.637	-0.353	-0.360	-0.278	**0.765**	0.439	-0.249	-0.177	0.297	0.429	0.515	0.420	-0.406
PR4	-0.433	-0.358	-0.440	0.797	-0.410	-0.387	-0.398	**0.835**	0.490	-0.297	-0.209	0.351	0.606	0.695	0.508	-0.508
PR5	-0.396	-0.288	-0.307	0.551	-0.309	-0.350	-0.277	**0.787**	0.662	-0.261	-0.227	0.508	0.477	0.505	0.568	-0.404
PRY1	-0.345	-0.198	-0.232	0.547	-0.276	-0.293	-0.252	0.642	**0.905**	-0.184	-0.141	0.370	0.491	0.437	0.505	-0.395
PRY2	-0.290	-0.174	-0.203	0.473	-0.294	-0.288	-0.195	0.594	**0.888**	-0.218	-0.104	0.304	0.415	0.390	0.532	-0.330
PV1	0.521	0.407	0.339	-0.288	0.391	0.393	0.421	-0.273	-0.152	**0.779**	0.160	-0.255	-0.259	-0.351	-0.230	0.353
PV2	0.360	0.198	0.233	-0.121	0.370	0.360	0.264	-0.153	-0.073	**0.663**	0.082	-0.091	-0.123	-0.170	-0.134	0.269
PV3	0.492	0.258	0.226	-0.267	0.430	0.373	0.303	-0.291	-0.243	**0.740**	0.304	-0.161	-0.233	-0.302	-0.221	0.374
SI1	0.258	0.234	0.279	-0.169	0.279	0.177	0.269	-0.131	-0.074	0.154	**0.780**	-0.127	-0.125	-0.221	-0.150	0.293
SI2	0.189	0.190	0.173	-0.156	0.170	0.079	0.123	-0.112	-0.080	0.095	**0.640**	-0.120	-0.065	-0.137	-0.057	0.154
SI3	0.418	0.288	0.216	-0.245	0.307	0.282	0.312	-0.268	-0.145	0.289	**0.844**	-0.205	-0.193	-0.301	-0.204	0.308
SOR1	-0.258	-0.219	-0.258	0.319	-0.150	-0.141	-0.220	0.360	0.317	-0.213	-0.125	**0.815**	0.264	0.341	0.486	-0.277
SOR2	-0.292	-0.302	-0.322	0.405	-0.138	-0.175	-0.271	0.484	0.364	-0.214	-0.177	**0.870**	0.371	0.394	0.506	-0.274
SOR3	-0.239	-0.227	-0.212	0.276	-0.104	-0.140	-0.204	0.312	0.221	-0.163	-0.209	**0.757**	0.236	0.357	0.336	-0.230

	BI	EE	FC	FR	HA	HM	PE	PR	PRY	PV	SI	SOR	SR	SYC	TM	TR
SR1	-0.395	-0.370	-0.365	0.647	-0.328	-0.310	-0.388	0.612	0.459	-0.281	-0.185	0.355	**0.919**	0.645	0.477	-0.496
SR2	-0.299	-0.315	-0.281	0.553	-0.304	-0.247	-0.291	0.547	0.463	-0.247	-0.146	0.308	**0.897**	0.552	0.454	-0.434
SYC1	-0.505	-0.425	-0.446	0.711	-0.457	-0.424	-0.448	0.666	0.431	-0.356	-0.280	0.409	0.614	**0.927**	0.497	-0.577
SYC2	-0.518	-0.424	-0.455	0.662	-0.469	-0.396	-0.488	0.606	0.381	-0.343	-0.273	0.346	0.584	**0.905**	0.449	-0.597
SYC3	-0.546	-0.460	-0.492	0.642	-0.455	-0.386	-0.491	0.630	0.442	-0.359	-0.282	0.457	0.601	**0.886**	0.529	-0.624
TM2	-0.365	-0.286	-0.320	0.528	-0.307	-0.355	-0.323	0.606	0.620	-0.255	-0.177	0.437	0.505	0.496	**0.827**	-0.431
TM3	-0.309	-0.312	-0.289	0.354	-0.252	-0.317	-0.312	0.532	0.365	-0.217	-0.184	0.480	0.356	0.415	**0.803**	-0.334
TM4	-0.331	-0.291	-0.279	0.426	-0.302	-0.333	-0.311	0.530	0.436	-0.207	-0.132	0.462	0.405	0.437	**0.862**	-0.370
TR2	0.640	0.465	0.508	-0.508	0.558	0.433	0.558	-0.492	-0.360	0.418	0.362	-0.314	-0.435	-0.549	-0.408	**0.901**
TR3	0.587	0.435	0.473	-0.470	0.553	0.442	0.614	-0.498	-0.370	0.409	0.261	-0.260	-0.489	-0.639	-0.416	**0.895**

Table 5-12 Discriminant Validity: Fornell-Larcker Criterion Evaluation

	BI	EE	FC	FR	HA	HM	PE	PR	PRY	PV	SI	SOR	SR	SYC	TM	TR
BI	**0.908**															
EE	0.491	**0.806**														
FC	0.509	0.629	**0.886**													
FR	-0.477	-0.410	-0.444	**0.868**												
HA	0.753	0.446	0.476	-0.449	**0.833**											
HM	0.632	0.427	0.356	-0.407	0.667	**0.922**										
PE	0.635	0.511	0.514	-0.389	0.494	0.415	**0.904**									
PR	-0.492	-0.387	-0.424	0.799	-0.450	-0.462	-0.401	**0.793**								
PRY	-0.355	-0.208	-0.243	0.570	-0.317	-0.325	-0.251	0.690	**0.896**							
PV	0.637	0.407	0.368	-0.322	0.544	0.513	0.460	-0.337	-0.223	**0.729**						
SI	0.405	0.320	0.293	-0.257	0.345	0.261	0.331	-0.242	-0.138	0.260	**0.759**					
SOR	-0.325	-0.311	-0.331	0.417	-0.162	-0.188	-0.288	0.485	0.378	-0.243	-0.206	**0.815**				
SR	-0.385	-0.379	-0.358	0.663	-0.349	-0.308	-0.377	0.640	0.507	-0.292	-0.183	0.366	**0.908**			
SYC	-0.577	-0.481	-0.512	0.742	-0.508	-0.444	-0.524	0.701	0.462	-0.389	-0.307	0.447	0.662	**0.906**		
TM	-0.405	-0.356	-0.358	0.530	-0.346	-0.405	-0.380	0.672	0.578	-0.274	-0.199	0.552	0.513	0.543	**0.831**	
TR	0.684	0.502	0.547	-0.544	0.619	0.487	0.652	-0.551	-0.406	0.461	0.347	-0.320	-0.514	-0.661	-0.459	**0.898**

Note. The values of the square root of the average variance extracted are on the diagonal; all other entries are the correlations.

5.6 Evaluation of Structural Model

Table 5-13 Result - Evaluation of Structural Model

Hypotheses Path	Path Coefficient	*Std.*	T Values	P Values	Outcome
Effort Expectance -> Perceived Risk	-0.008	0.024	0.324	0.746	Not Supported
Effort Expectance -> Trust Belief	0.136	0.041	3.304	0.001***	**Supported**
Financial Risk -> Perceived Risk	0.419	0.046	9.043	0.000***	**Supported**
Performance Expectancy -> Trust Belief	0.432	0.046	9.378	0.000***	**Supported**
Perceived Risk -> Performance Expectancy	-0.401	0.047	8.603	0.000***	**Supported**
Perceived Risk -> Trust Belief	-0.304	0.038	8.003	0.000***	**Supported**
Privacy Risk -> Perceived Risk	0.234	0.032	7.649	0.000***	**Supported**
Social Influence -> Trust Belief	0.087	0.041	2.142	0.032*	**Supported**
Social Risk -> Perceived Risk	0.036	0.029	1.254	0.210	NOT Supported
Service Risk-> Perceived Risk	0.037	0.039	0.961	0.337	NOT Supported
Psychological Risk -> Perceived Risk	0.124	0.044	2.791	0.005**	**Supported**
Time Risk -> Perceived Risk	0.199	0.038	5.291	0.000***	**Supported**
Trust Belief-> Behavioural Intention	0.246	0.046	5.373	0.000***	**Supported**

*p ≤ 0:05; **p ≤ 0:01; ***p ≤ 0:001

5.6.1 Path Coefficients - Level of Significance

Running the PLS-SEM process generates estimates for the structural model relations. These estimates signify the hypothesized relationships existing between the constructs. Path coefficients possess standardized values, which range from -1 to +1. They also feature standardized correlations between the constructs. An estimated path coefficient lying closer to +1 signifies a strong positive relationship which is statistically significant. At the same time, values closer to 0 represent weaker relationships as they approach 0. Values, which are too close to 0, on the other hand, are considered as insufficiently dissimilar to 0.

To determine whether a coefficient is significant, the study determines the coefficient's standard error through a process known as bootstrapping. This standard error allows for computing empirical *t* and *p* values for the array of structural path coefficients. A coefficient is statistically significant when its empirical *t* value exceeds its critical value at a given confidence level. The commonly widely employed value within the context of a two-tailed test is 1.67 at a level of significance of 10%. At a lower level of error probability of percentage, the critical value employed is 1.9. Lastly, the critical value of 2.57 is applied when the significant level is much lower at 1%. On the other hand, the critical values for one-tailed tests are 1.28, 1.65 and 2.33, at significant values of 10%, 5% and 1% respectively. Hair et al. (2016) observe that researchers assumed a 5% significant level for exploratory marketing research. Table 5-14 below illustrates the path coefficients for each hypothesis.

Table 5-14 Path Coefficient

Hypotheses Path	Path Coefficient	Standard Deviation	T Values	P Values
Effort Expectance -> Perceived Risk	-0.008	0.024	0.324	0.746
Effort Expectance -> Trust Belief	0.136	0.041	3.304	**0.001*** **
Financial Risk -> Perceived Risk	0.419	0.046	9.043	**0.000*** **
Performance Expectancy -> Trust Belief	0.432	0.046	9.378	**0.000*** **
Perceived Risk -> Performance Expectancy	0.401	0.047	8.603	**0.000*** **
Perceived Risk -> Trust Belief	0.304	0.038	8.003	**0.000*** **
Privacy Risk -> Perceived Risk	0.234	0.032	7.649	**0.000*** **
Social Influence -> Trust Belief	0.087	0.041	2.142	**0.032***
Social Risk -> Perceived Risk	0.036	0.029	1.254	0.210
Service Risk-> Perceived Risk	0.037	0.039	0.961	0.337
Psychological Risk -> Perceived Risk	0.124	0.044	2.791	**0.005** **
Time Risk -> Perceived Risk	0.199	0.038	5.291	**0.000*** **
Trust Belief-> Behavioural Intention	0.246	0.046	5.373	**0.000*** **

*p ≤ 0:05; **p ≤ 0:01; ***p ≤ 0:001

Most researchers however use *p* values to determine the level of significance. In these tests, the *p* value is equivalent to the probability of getting a *t* value, which at least shares the same extremity as the value which is really observed. This is subject to the null hypothesis being maintained, such that the *p* value is equivalent to the probability of making a type 1 error. Therefore, when a study assumes a 5% significant level, the corresponding *p* value should be less than 0.05 to collaborate that the relationship under investigation is significant at the 5% level.

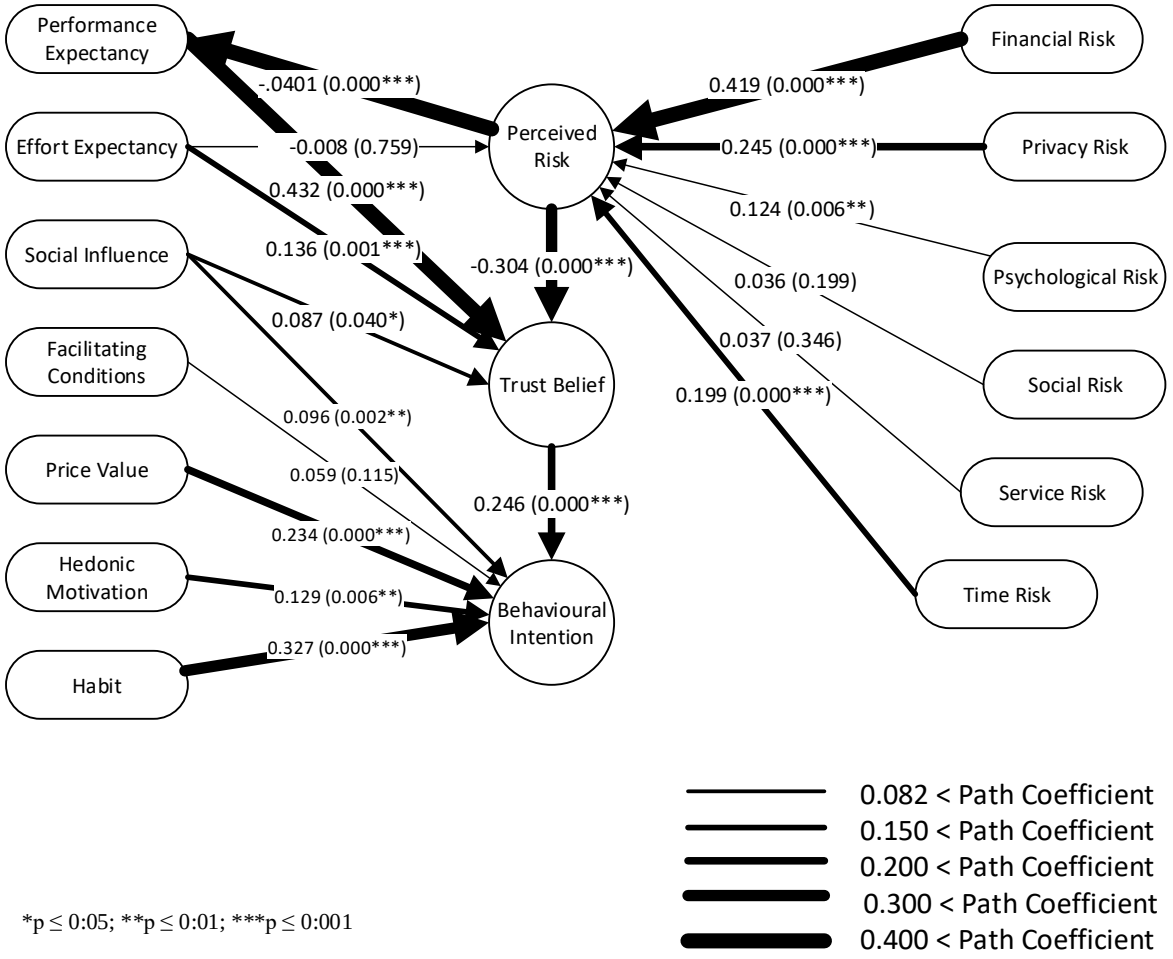

Figure 5-2 Path coeffecients (*p*-value in brackets)

Based on the bootstrapping result (see Figure 5-3 and Table 5-13), the path coefficients corresponding to the six dimensions of risk indicate positive significant relationships with regards to perceived risk, except for service risk and social risk. The path coefficients of performance expectancy indicate a strong positive relationship with trust belief. The path coefficient is 0.432, at a *t* value of 9.378, and at a significant level of less than 0.001. Perceived risk has a strong negative relation on performance expectancy (H9) and trust belief (H14), with *p* values of less than 0.001, path coefficient value of -0.401, and *t* values of 8.603/ *p* value 0.001, path coefficient -0.304, and *t* values of 8.003 respectively. Social Influence (H13) also had a significant relationship with trust belief, with *p* values of 0.032, path coefficient 2.142 and a *t* value of 2.001. Effort expectancy (H12) on trust belief also had a significant relationship with *p* values of 0.001; path coefficient 0.136 and *t* value of 3.304 (see Table 5-13).

Table 5-15 Complex Cause-Effect Relationships: Mediator Effect

	Path	**Original Sample (O)**	**Sample Mean (M)**	**Standard Deviation (STDEV)**	**T Values**	**P Values**
Indirect Effect	PR -> BI	-0.117	-0.117	0.026	4.436	0.001
Direct Effect	PR -> BI	-0.037	-0.036	0.033	1.109	0.268

*p ≤ 0:05; **p ≤ 0:01; ***p ≤ 0:001

Nonetheless, effort expectancy (H10) revealed an insignificant relationship on perceived risk. For (H14 & H15), this study revealed that trust belief completely mediates the relationship between perceived risk and behavioural intention. As Hair et al. (2016) note, in the event that direct influence is not significant, this implies a case of indirect only mediation. According to

the author, this offers the best-case situation, because it implies that our selected mediator fulfils the requirements of the hypothesized relation (see Table 5-15).

5.6.2 Coefficient of Determination (R^2)

The coefficient of determination (R^2) is the most widely used measure when it comes to assessing structural models. It measures a model's capability of making accurate predictions of the real data points. It is calculated as the square of the correlation between a given endogenous variable's actual values and predicted values. In statistical analysis, it measures the degree to which the regression line can accurately approximate real data points. When this figure is 1, it means that the regression line fits perfectly with the actual data. The coefficient of determination describes the degree of variance of endogenous construct, explicated by linked exogenous constructs. The coefficient of determination comprises the collective data used for model estimation to assess the model's predictive power; it therefore also represents a measurement of the in-sample predictive capabilities (Sarstedt et al., 2014).

The Coefficient of Determination (R^2) ranges from 0 to 1. Values closer to 1 indicate high predictive power and accuracy. However, it is challenging to establish broadly accepted principles for R^2, because this value is subject to the specific discipline the study is based on and the model's complexity. For instance, R^2 values of 0.20 are perceived as high in some disciplines, such as customer behaviour and customer satisfaction drivers (success driver research). Comparatively, researchers in other studies seek higher values, from 0.75 and above. Henseler et al. (2009) and Hair et al. (2011) elaborate that in scholarly studies focusing on marketing concepts, R2 values of 0.25, 0.5 and 0.75 as a general principle can be classified as weak, moderate and substantial, respectively for endogenous latent variables.

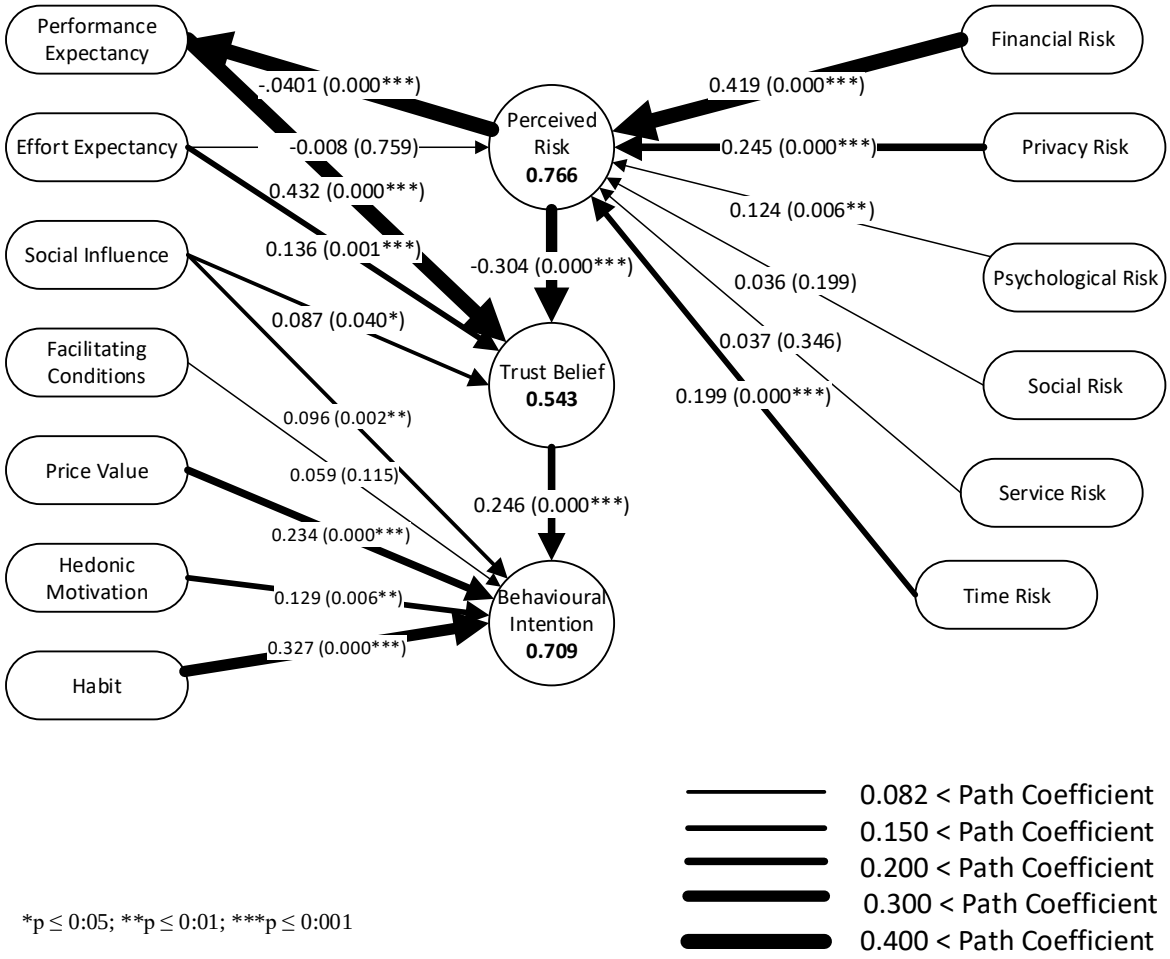

Figure 5- Path coefficients and R^2

For this research, the model could explain 0.709 of the variance in buying intention with respect to hotel booking services. Hair et al. (2011) note that with respect to the coefficient of determination measures, this value can be classified as moderate. Additionally, the coefficient of determination measure for perceived risk was 0.766, which can be classified as substantial within the confines of consumer behaviour discipline. The coefficient of determination measure associated with trust belief was 0.543, which also falls within the confines of moderately significant within consumer behaviour discipline. However, the R^2 for

performance expectancy was as low as 0.169. This indicates that performance expectancy was weak in explaining the variance in buying intention. These measures are as summarised in Table 5-16 & Figure 5-4.

Table 5-16 Coefficient of Determination

	R Square	R Square Adjusted
BI	0.713	0.709
PE	0.161	0.159
PR	0.769	0.765
TR	0.547	0.543

5.7 Categorical Moderators Effects

Researchers seek to compare models and identify any significant variance between subsamples. Henseler et al. (2009) explain that multi-group analysis performs the task of comparing model estimations for different subsamples. This method allows the researcher to investigate any dissimilarity between like models, predicted for varying groups of respondents such as males and females. The overarching goal is to determine whether there are statistically significant variances between the various group models, subject to each other. In this study, the PLS-SEM technique was employed to determine the *t* values (significant values).

Homogeneity of Variance Tests

After identifying the results of each hypothesis, the subsequent step of this research was to evaluate the demographic characteristics, which can be employed to deduce moderator variables. This, however, necessitated prior examination of the outcome of Levene's test.

This analysis tested for demographic variables of gender, age and Internet experience, which could influence the interrelationships of independent variables and encourage adoption of hotel e-booking. This needed to be proven to support the proposed hypothesis. A non-parameter based Levene's test was adopted to validate likeness of variances of age, gender, education and Internet experience (homogeneity of variance). The outcomes of this test were insignificant. Consequently, the null hypothesis was maintained ($p>0.5$), except for education (see Appendix VII). Education, therefore, cannot be used as a moderator (Nordstokke et al., 2011).

5.7.1 Gender

This study observed that gender moderates the relationship between trust belief and performance expectancy. Additionally, gender has a moderating influence on the relationship between trust belief and perceived risk, between behavioural intention and social influence, and between trust belief and social influence, as highlighted in Table 5-17 below.

Recommendations from friends have been proven to be effective in helping women, and in reducing their risks significantly. The same does not apply for men. Women are also inclined to exchange Internet experiences with their friends, and as such tend to be receptive to what their friends recommend. Furthermore, friends can greatly affect women's online purchasing behaviour, but this influence is not found in men. Once more, the use of these recommendations reveals differences in gender. A question that arises is whether these differences are because women are more sociable than men. This notwithstanding, the question about the use of gender as a predictor of perceived risk in the Internet-purchasing environment remains to be explored. Further elaboration is discussed in the next chapter.

Table 5-17 Multi-Group Analysis on Gender

	Path Coefficients-diff Male-Female	**p-Value Male vs Female**
EE -> PR	0.034	0.716
EE -> TR	0.083	0.827
FC -> BI	0.020	0.577
FR -> PR	0.077	0.697
HA -> BI	0.120	0.135
HM -> BI	0.115	0.849
Performance Expectancy -> Trust Belief	**0.150**	**0.05***
PR -> PE	0.124	0.089
Perceived Risk -> Trust Belief	**0.165**	**0.020***
PRY -> PR	0.185	0.063
PV -> BI	**0.160**	**0.046***
SCR -> PR	0.089	0.18
Social Influence -> Behavioural Intention	**0.150**	**0.988***
Social Influence -> Trust Belief	**0.173**	**0.983***
SOR -> PR	0.003	0.484
SR -> PR	0.080	0.790
SYC -> PR	0.042	0.674
TM -> PR	0.099	0.839
TR -> BI	0.075	0.764

*p ≤ 0:05; *p ≥ 0.95

5.7.2 Age

Multi-group analysis on age revealed that age moderates the association between time risk and perceived risk. Furthermore, this study also noted that age has a moderating influence on behavioural intention and price value relationships, as shown in Table 5-18. Further elaboration on this will be discussed in the following chapter.

Table 5-18 Multi-Group Analysis on Age

	Path Coefficients-diff 18-24/45-70+	**p-Value 18-24 vs 45-70+**
EE -> PR	0.167	0.878
EE -> TR	0.181	0.762
FC -> BI	0.157	0.178
FR -> PR	0.325	0.946
HA -> BI	0.201	0.814
HM -> BI	0.181	0.212
PE -> TR	0.301	0.123
PR -> PE	0.131	0.768
PR -> TR	0.004	0.496
PRY -> PR	0.116	0.768
Price Value -> Behavioural Intention	**0.373**	**0.957****
SI -> BI	0.115	0.199
SI -> TR	0.147	0.812
SOR -> PR	0.107	0.245
SR -> PR	0.130	0.785
SYC -> PR	0.161	0.222
Time Risk-> Perceived Risk	**0.285**	**0.044***
TR -> BI	0.238	0.128

*p ≤ 0:05; **p ≥ 0.95

5.7.3 Internet Experience

Multi-group analysis on Internet experience revealed that Internet experience moderates the association between facilitating conditions and behavioural intentions (see Table 5-19). The analysis revealed that Internet experience also moderates the association between perceived risk and trust belief. Internet experience was also observed to have a moderating relationship between behavioural intention and trust belief. This is further elaborated on in the following chapters. The table below shows multi-group analysis on Internet experience.

Table 5-19 Multi-Group Analysis on Internet Experience

	Path Coefficients-diff High Internet experience – Low Internet experience	**p-Value High-Internet experience vs Low-Internet experience**
EE -> PR	0.021	0.393
EE -> TR	0.047	0.334
Facilitating Condition -> Behavioural Intention	**0.169**	**0.035***
FR -> PR	0.026	0.568
HA -> BI	0.000	0.499
HM -> BI	0.068	0.288
PE -> TR	0.012	0.457
PR -> PE	0.139	0.137
Perceived Risk -> Trust Belief	**0.196**	**0.023***
PRY -> PR	0.077	0.185
PV -> BI	0.031	0.615
SI -> BI	0.045	0.675
SI -> TR	0.137	0.078
SOR -> PR	0.091	0.110
SR -> PR	0.249	0.983
SYC -> PR	0.132	0.159
TR -> PR	0.021	0.580
Trust Belief -> Behavioural Intention	**0.252**	**0.975****

*p ≤ 0:05; **p ≥ 0.95

5.8 Summary

The above chapter has discussed data analysis procedures involved in the model testing stage of this research. It proceeded to illustrate the order of analysis procedures and provided a summary of associated outcomes. The analysis phase of this research comprised descriptive analysis methods preceded by SEM procedures. This chapter began with processes of descriptive analysis, whereby data screening procedures and data cleaning processes took

place. This was followed by demographic analysis to validate that the selected sample was representative of the population.

Subsequently, this chapter proceeded to discuss the choice of PLS-SEM as the structural equation-modelling tool of convenience within the context of the present study. This measurement established both reliability and validity of research measures through a combination of discriminant validity tests, item validity checks, validity check, average variance extracted tests and composite reliability.

The above chapter also offered a thorough explanation of the PLS structural model analysis, which collaborates most of proposed research hypotheses. Furthermore, Multi-group analysis was employed to analyse the differences between groups, using the variables of Internet experience, gender and age as moderator variables for the suggested relationships.

The next chapter will focus on interpretation of the above statistical results, subject to the study hypotheses and previous literature within the field of consumer behaviour. Therefore, pending a concluding statement, the entire research findings will be assessed and deduced in terms of how they contribute to theory, as well as how they expand or enhance research and practice within the field of consumer behaviour.

Chapter Six Discussion

6.1 Introduction

This chapter continues the discussion of the results from the fifth chapter, with a primary aim of responding to the research objectives, which were posited earlier in the first chapter. This chapter condenses the outcomes of the research by examining how the outcomes of hypothesis testing have played a role in addressing the research questions. A discussion ensues concerning the implications of the outcomes of this research on theory and practice.

6.2 Flashback to Research Objectives

The following sections present thorough discussion on the findings, as addressed by the research objectives listed below:

1. To identify the various inherent characteristics of consumers which are likely to influence adoption of new technology.

2. To explore the primarily role of perceived risk and trust belief in adoption of new technology by examining relationships.

3. To establish to what extent individual differences such as age, gender and Internet experience influence the linkages between different variables of technology adoption, particularly perceived risk and trust belief.

In line with exploring the research objectives, this section is devoted to the descriptive examination and analysis of each hypothesis path, assessing the associations between various pertinent concepts, and clarifying precise concerns or issues in some specific areas.

6.3 First Objective

To identify the various inherent characteristics of consumers which are likely to influence adoption of new technology.

This study indicates that most e-bookers of hotel services were experienced and regular users of the Internet. With regards to patterns, e-bookers used the Internet to search for information more frequently than other users. The majority had also embraced e-booking for no less than 12 months. Hence, this study observed that those who were more conversant with the Internet would be more likely to embrace e-booking. This is consistent with Citrin et al.'s (2000) findings, which indicate that the greater the degree of Internet usage, the greater the likelihood of Internet adoption as a means of booking. These findings also highlight that e-bookers depend on inclusive product information and compare prices to guide their purchasing choices. They derive this information from online information searches. Nonetheless, only a small fraction of these users were regular hotel e-bookers, utilising the Internet at least eight times in a year to make hotel e-bookings. Therefore, these findings

suggest that most online bookers of hotel services only shop for these services once or twice a year, subject to seasonal variations and factors. Frequent e-bookers, on the other hand, fall within the bracket of early adopters of electronic booking who exhibit a positive outlook towards it. They are also regular users of the Internet.

Regardless of the frequency of booking, the bulk of e-bookers use the Internet for accommodation-seeking purposes because of the simplicity of descriptions and the commodified nature of the majority of hotel services, such as flights and hotels, which support the use of e-booking. Within this study, it was discovered that electronic bookers had a higher preference for booking.com when booking hotel services. This site was preferred by 83% of e-bookers, revealing a lack of competition from other service providers in Saudi Arabia. Additionally, most of the e-bookers favoured websites that provide a variety of products to complement the hotel services and differentiate between them. However, the majority of websites fail to appreciate the significance of offering various products and services in the local currency of Saudi Arabia.

This is akin to the idea of 'booking under one roof', whereby the consumer enjoys the convenience of a range of products and services. It has, however, been found that e-bookers also favour booking from popular websites. This suggests a kind of brand loyalty towards certain established brands which enable the consumer to derive greater benefits. This is consistent with the results of the survey, which showed that consumers derive a higher level of confidence in both hotel services and transactions when they use certain brands. The survey results also indicate that these consumers obtained better package prices when they used given brands.

The findings of this research reveal that e-bookers of hotel services may also buy other varieties of products over the Internet. This indicates that e-bookers have not only embraced e-booking of hotel services, but also other offers and products, such as cruise ships and car rentals. This therefore suggests that e-bookers who have been making regular online purchases are also more likely to buy new product groupings over the Internet, especially service related products (intangibles), because of satisfaction with previous online purchases.

6.4 Second Objective

To explore the primary role of perceived risk and trust belief in adoption of new technology by examining relationships.

This research shows that Saudi Arabian customers' level of acceptance and use of e-booking for hotel services is substantially impacted by their level of trust, and in the degree to which they perceive the services as risk free, and easy to use. Consistent with most recent studies (Blaise et al., 2018; Nawi et al., 2017; Yin et al., 2016; Faqih, 2016), this study affirms that trust belief has a positive and substantial influence on behavioural intention when using hotel e-booking services. These findings reveal that trust is a critical factor, which affects consumers' intentions to embrace and use e-booking, especially when these users are expected to provide personal and/or confidential information, such as bank account details, identity card information, credit card details, or contact information. The findings also indicate that the level of trust among citizens in e-booking services needs to be increased and

developed, to enhance the degree of acceptance and use of e-booking services among the public.

The inclusion of perceived risk and trust belief, the two precursors of uncertainty, presents a better opportunity to understand how consumers cultivate distrust or fear of e-booking of hotel services. The tests conducted revealed that perceived risk was insignificantly related to e-booking acceptance, consistent with recent studies (Chang et al., 2017; Moodley & Govender, 2016; Yin et al., 2016; Sohn et al., 2016; Faqih, 2016). This indicates that the influence of perceived risk is entirely mediated by trust belief variables, the influence of these variables within the model varying from previous statements presented in other studies anchored on the technology acceptance model. Nonetheless, there was an inconsistency in the hypothesized model, which suggested the existence of a direct relationship between e-booking adoption and the effects of perceived risk and trust belief (See Section 2.5.1). Therefore, the theoretical inference is that perceived risk and trust belief can be viewed as two opposing forces which shape the willingness of consumers to embrace e-booking.

In this study, it was found that perceived risk influenced consumers' decisions to embrace technology through trust belief. At the same time, effort expectancy impacted positively the level of trust in e-booking. The study also observed that perceived risk was negatively associated with performance expectancy. Thus, if a consumer perceived e-services as risky, then they would also view the system to be of no use. Additionally, when consumers perceived these online services as simple and easy to use, their level of trust in the system would increase. Alternatively, the influence of perceived risk on behavioural intention was entirely dependent on trust. In alignment with Faqih (2016), this research found that social influence also significantly increased the degree of trust belief, primarily among female

consumers. This means that female consumers were more likely to be influenced towards adoption of electronic booking by other consumers, who would increase their trust in hotel e-booking services.

There was no significant relationship between behavioural intention and perceived risk, but there was a strong indirect relationship between them (see Table 5-15 in Section 5.6). This suggests that trust entirely mediated the relationship between behavioural intention and risk and means that the association between behavioural intention and perceived risk is determined by trust belief. Therefore, the higher the degree of risk perceived by the consumer, the less the degree of trust, which will in turn dissuade the consumers in question from adopting hotel electronic booking services. This implies that trust is constantly related to perceived risk. Table 5-15 in Section 5.6 reveals that trust entirely mediates the relationship between behavioural intention and perceived risk.

The observed relationship between three dependent constructs, trust belief, perceived risk and behavioural intention to use new technology indicates that these are strong predictive concepts for the adoption of e-booking of hotel services. Each of these constructs was also subject to the independent constructs which influenced them. For instance, this research discovered that privacy risk and financial risk were strong predictors of risk perceived by hotel e-bookers. However, social risk and service risk were found not to be significantly related to perceived risk. The study also revealed that perceived risk was negatively associated with performance expectancy. This implies that consumers are afraid of financial loss which they may incur when using hotel e-booking services. This also implies that people are afraid of disclosing their personal information online, such as credit card information, which would make them vulnerable to attack. At the same time, it was clear that when the

consumers perceived e-hotel services as risky, they were less likely to use the e-booking system, even if the system was beneficial.

Performance expectancy, effort expectancy and perceived risk were seen to influence trust belief. Social influence was also observed to have a substantial influence on and relationship with trust belief. In this regard, it was observed that when the citizens perceived the usefulness of hotel e-booking services, their level of trust in e-booking services increased. In fact, the perceived usefulness of hotel e-booking services was noted as the main driver of increased trust, which in turn supports the intention to use the technology. Additionally, the friendlier the system in terms of ease and simplicity of use, the higher the amount of trust in the system in question. Trust was also affected by the perceived system risk, such that the lower the perceived system risk, the higher the amount of trust the consumer would have in the system. In terms of social influence, it was observed that consumers influenced each other, and this had a notable effect on the degree of trust they had in a system. A higher amount of trust among consumers will therefore increase the level of trust in the system among non-consumers. However, upon application of a gender moderator, this research noted that their family or friends did not influence the level of trust among males. It was only strong among female consumers, who were more likely to be influenced by family or friends.

Lastly, social risk, effort expectancy and services risk were determined as having a non-significant relationship with perceived risk.

Eleven out of the 15 hypotheses in the current study were supported (see Table 6-2). These hypotheses also featured statistically significant *t* standard value, as well as coefficient score.

Table 6-1 Result of PLS-Structural Equation Modelling

Hypothesized Path	Original Sample (O)	Sample Mean (M)	Standard Deviation	T Values	P Values	Outcome
(H10) Effort Expectancy is negatively related to Perceived Risk	-0.008	-0.009	0.024	0.324	0.746	NOT Supported
(H12) Effort Expectancy is positively related to Trust Belief	0.136	0.138	0.041	3.304	0.001***	**Supported**
(H1) Financial Risk is positively related to Perceived Risk	0.419	0.421	0.046	9.043	0.000***	**Supported**
(H11) Performance Expectancy is positively related to Trust Belief	0.432	0.427	0.046	9.378	0.000***	**Supported**
(H9) Perceived Risk is negatively related to Performance Expectancy	-0.401	-0.402	0.047	8.603	0.000***	**Supported**
(H14) Perceived Risk is negatively related to Trust Belief	-0.304	-0.304	0.038	8.003	0.000***	**Supported**
(H4) Privacy Risk is positively related to Perceived Risk	0.245	0.244	0.032	7.649	0.000***	**Supported**
(H13) Social Influence is positively related to Trust Belief	0.087	0.089	0.041	2.142	0.032*	**Supported**
(H8) Social Risk is positively related to Perceived Risk	0.036	0.037	0.029	1.254	0.210	NOT Supported
(H5) Service Risk is positively related to Perceived Risk	0.037	0.037	0.039	0.961	0.337	NOT Supported
(H3) Psychological Risk is positively related to Perceived Risk	0.124	0.122	0.044	2.791	0.005**	**Supported**
(H7) Time Risk is positively related to Perceived Risk	0.199	0.200	0.038	5.291	0.000***	**Supported**
(H15) Trust Belief is positively related to Behaviour Intention	0.246	0.246	0.046	5.373	0.000***	**Supported**

*p ≤ 0:05; **p ≤ 0:01; ***p ≤ 0:001

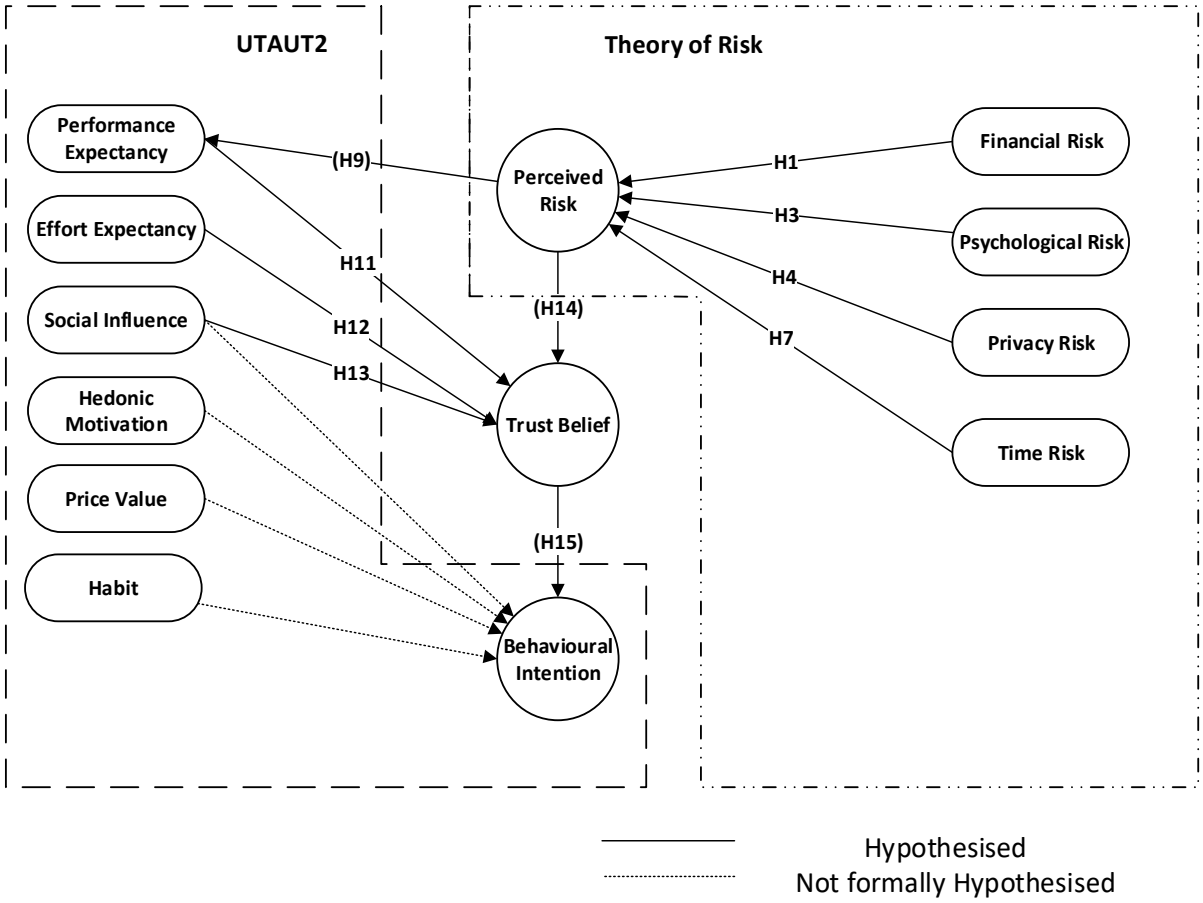

Figure 6-1 The Model of Study

The suggested model above (Figure 6-1) explains 0.709 of the variance in buying intention with respect to hotel booking services. Hair et al. (2011) note that with respect to the coefficient of determination measures, this value can be classified as moderate. Additionally, the coefficient of determination measure for perceived risk was 0.766, which can be classified as substantial within the confines of consumer behaviour discipline. The coefficient of determination measure associated with trust belief was 0.543, which also falls within the confines of moderately significant within consumer behaviour discipline. However, the R^2 for

performance expectancy was as low as 0.169. This indicates that performance expectancy was weak in explaining the variance in buying intention.

6.5 Third Objective

To what extent the individual differences, age, gender and Internet experience influence the linkages between different variables of technology adoption particularly perceived risk and trust belief.

Firstly, an assessment of the demographics of hotel e-bookers in Saudi Arabia reveals that e-bookers are mostly young or middle-aged, and between the ages of 25 and 40. This assessment also reveals that e-bookers are mainly married couples who enjoy relatively high or middle incomes. The research also discovered that most e-bookers are well-educated, most being computer savvy, which makes e-booking relatively easy for them. It also makes them more likely to adopt hotel e-booking, as compared to other consumers of hotel services in the Middle East.

Upon comparing respondents to the e-booking questionnaire, the major difference discovered was gender. The gender separation in Saudi Arabia, coupled with the snowball technique employed in this research could have resulted in more male than female respondents. This notwithstanding, some essential statistical techniques were employed in the analysis stage to ensure that the above issues did not undermine the results of the study (see Section 5.7).

In terms of geodemographics, most hotel e-bookers resided in the centre of the Kingdom of Saudi Arabia. These constituted 41% of total e-bookers, followed closely by the West, which constituted 20%, and the North, East and South, which formed 19%, 12% and 8% respectively. These results indicate that most of the Saudi Arabian population interested in purchasing hotel services over the Internet are in the centre and western parts of the country, including the capital, Riyadh, which represented more than 41% of the sample. However, these results may have been affected by the population per region, as well as the distribution of participants sourced from the database.

The demographic outline of e-bookers of hotel services reveals that these results are consistent with previous related literature in terms of age, gender, education, occupation and household composition. Based on this study segmentation, the profiles of hotel e-bookers, most of whom were from major cities in the Kingdom of Saudi Arabia, matched the profiles proposed by official resources. Parallels may be found regarding occupation, age group, household background and education. The income range of most e-bookers in the country lies between £24,000 and £36,000.

The hotel e-booker's profile also showed slight variations from that of the general e-booker from Western countries. This is as suggested by Shim and Drake (1990), who stated that nevertheless, online bookers mainly feature individuals with higher educational levels, who are female and between 30 and 50 years of age. In similar vein, Donthu and Garcia (1999) observed that individuals who shopped online tended to be older and better-off Internet users, who enjoyed comparatively higher purchasing power and had easier access to credit cards. Younger consumers, on the other hand, mainly used the Internet to search for information only. However, Mathwick et al. (2002) concluded that e-bookers appeared to be much

younger, below the age of 44 years, as compared to catalogue bookers. They were also well-informed, educated and well-off, with incomes of over £43,000.

With the increasing popularity of e-booking in the Kingdom of Saudi Arabia, there has been a notable increase in the number of women making online bookings, even though male consumers remain dominant and more experienced in e-booking adoption.

6.5.1 Gender

The multi-group analysis of gender revealed that male consumers are more likely than female consumers to trust technology, when they perceive this technology as being beneficial. This implies that marketers should therefore focus on highlighting the usefulness of the given technology when marketing it to male consumers. It was also found that males were more likely to be influenced by perceived risk, as compared to their female counterparts. This implies that male consumers are capable of trusting e-booking services, even if there is some degree of risk involved. However, this is dependent on the type of risk that they are exposed to. Additionally, this analysis found that social influence did not have a significant effect on trust among male consumers. However, social influence did have a significant effect on female consumers. This means that female consumers are more willing to accept, and trust a given technology if they are told to by a relative or a friend. This also suggests that male consumers are not likely to be influenced by other people's opinions (see Table in section 5.7.1).

These findings are consistent with those of other studies and confirm the significance of gender effect on the acceptance and use of technology (Akman et al., 2005; Louho & Kallioja, 2006; Venkatesh & Morris, 2000; Venkatesh et al., 2003).

6.5.2 Age

This study concludes that younger people experience the significance of time risk more than older people do. Consequently, a younger user may not be willing to spend much time in acquainting him or herself with how to use an item of technology if the expected outcome is not positive. This is probably because older persons may have more time to use a given technology and become acquainted with it. Thus, when targeting younger people, it is recommended to ensure easy and quick access to payment data or accounts. Additionally, a marketer should employ every method of speeding up the e-booking process. For instance, this may include allowing the Internet browser to autofill payment data, or autocomplete various blank spaces, to complete the process more rapidly, or to allow a quicker search. An alternative example is to employ information stored in the site's cookies, to pinpoint the location of the consumer and past accommodations, to generate choices that are more suitable for the consumer and prioritise these choices in the search results (see Table in section 5.7.2).

This study hypothesized on the relationship between behavioural intention and price value, which presents an interesting area of discussion for future studies. It was observed from this study that price value had a significant relationship with older consumers' intentions to use a given technology, as compared to younger users. This implies that older consumers are more willing than younger consumers to accept a given technology in order to save money. However, this does not imply that younger consumers have limited intention to use

technology, judging from inferences determined from price value. On the contrary, young consumers still exhibit significant intention to use technology. This intention is just lower when compared with older people and suggests that marketers should place emphasis on price value when targeting older consumers through advertisements.

6.5.3 Internet experience

Multi-group analysis on Internet Experience (IE) revealed that less Internet-experienced consumers are more likely to be influenced by perceived risk, as compared to more Internet-experienced consumers. This, therefore, means that women may trust and use e-booking services, even when there is some element of risk involved. However, this is dependent on the types of risk, and how they are exposed. This analysis also revealed that trust belief had a significant relationship with behavioural intention among the more Internet-experienced users, implying that consumers who have less Internet experience will be more likely to use technology, absent of trust. This also implies that Internet-experienced users must trust the service provider before they can use their services (see Table in section 5.7.3).

Additionally, these results show that all moderating hypotheses suggested have been well supported. It is important to note that these results corroborate the potential role played by Internet experience in the adoption and use of e-booking services.

6.6 Summary

The above discussion of the research objectives clearly explains several critical issues of consumer behaviour within the context of the online marketplace. The above results reveal

that personal features are just as significant as technology acceptance elements with regard to how they influence consumer acceptance and use of hotel e-booking services. The next chapter will shed light on the relevant outcomes as reported in this chapter, and summarise the research's contributions to methodological, practitioner and theoretical perspectives. This will be followed by a review of the various limitations of the study and a statement of managerial implications, coupled with possible directions and opportunities for future studies.

Chapter Seven Conclusion

7.1 Introduction

The last chapter concludes the current study by summarising overall the chapters presented in this thesis in a final discussion. This chapter also includes an analysis of the various ways in which this research has contributed to the existing body of knowledge. As previously highlighted, there is currently scant reported research covering the behaviour of hotel e-booking service consumers in the Kingdom of Saudi Arabia. The results of this study are therefore expected to contribute significantly to the current body of marketing literature, as well as providing valuable insights for practitioners within the hospitality industry. The analysis will be followed by a summary of the various limitations of this study, coupled with a series of suggestions for future research.

7.2 Research Summary

The primary aim of this study was to determine and assess the major factors, which motivate or dissuade a customer towards or against e-booking of hotel services (hotel e-booking). To achieve this goal, the study adopted pre-validated measurement scales (see Appendix I). These measures were subsequently rigorously evaluated and validated using processes suggested by Hair (2006) - EMM (Evaluation of Measurement Model) and Item Analysis.

The evaluation and validation also encompassed ESM (Evolution of Structural Model), which is consistent with the latest suggestions by Hair et al. (2016). It is therefore reasonable to conclude that the various measures adopted for testing the hypothesised associations between the constructs, as proposed in the conceptual model, have fulfilled the requirements of reliability, validity and unidimensional (see Section 5.5). In the end, the overarching goal of this thesis was to generate a credible model, which can be considered as possessing the necessary explanatory and statistical power to allow for reliable interpretation of results.

The UTAUT2 model (The Unified Theory of Acceptance and Use of Technology II) has been used extensively in studies on consumer embracement of new technology (see Section 2.2.3) and has been employed as the theoretical basis for the present research. The UTAUT2 model was adopted as the framework on which the conceptual model for this study would be developed, by virtue of its consistency in explaining a significant fraction of the differing intentions and discrepancy in using technology, as generated from past research on purchasing technology linked goods and services (Bagozzi, 2007). The proposed model attempts to build on the merits of reliability and validity of the constructs of trust belief and perceived risk in the UTAUT2 model by introducing additional constructs aimed at enhancing the predictive and exploratory power of this model (Taylor & Todd, 1995a; Gefen & Straub, 2000).

The significance of a greater comprehension of consumer behaviour within the context of virtual markets has been widely recognised, especially pertaining to the various factors, which affect the consumer's decision to embrace e-booking, and which represent the principal constructs within this research. This study seeks a leading role in expanding current research on the adoption of hotel e-booking among consumers by employing technology

acceptance methodology. The study is based on the principal research question: ‘How can we explain the reason for low technology adoption among customers who book hotel services online in the Kingdom of Saudi Arabia?’ To realize this goal, the study has drawn on primary data generated from an online consumer survey conducted in Saudi Arabia, which is considered among the most technologically progressive countries in the Middle Eastern region. The subsequent sections will present a summary of the content of the thesis.

The first chapter of this thesis explored the substance of the research problem. Players in the hospitality industry have been deliberately introducing more Internet-based services at an increasing rate, coupled with other efforts driving increasing competitiveness, as well as growing sales volumes. Previous studies suggest that the Internet presents valuable and significant opportunities for both marketers and consumers alike. From the perspective of consumers, it provides a wider range of choices of goods and services, while also making it easier to compare between prices offered by different suppliers. The Internet also offers consumers an avenue through which they can select and buy more easily and readily. On the other hand, it provides marketers with valuable opportunities to reach a wider audience and gain access to new markets. It also allows them to offer new services, while enhancing their ability to compete with larger businesses. Indeed, the Internet provides marketers with the opportunity to cultivate new skills, and to maintain increased competitiveness of their businesses. In line with the benefits and opportunities presented, this chapter introduced the rationale for the research by outlining the significance of knowledge of the online target markets within the context of electronic booking services in the hospitality industry, associated with individual consumer behaviour (cognitive aspects), and coupled with other linked elements which impact the choice for adoption of e-booking.

This chapter also included the background to the present research, and the various related problems. Additionally, it encompassed the research scope questions, objectives, gaps and study contribution. The main objectives of the study were as follows:

1. To identify the various inherent characteristics of consumers which are likely to influence e-booking adoption in Saudi Arabia.

2. To explore primarily the role of perceived risk and trust belief by examining relationships and suggesting an adequate model for e-booking adoption.

3. To determine to what extent individual differences, age, gender and Internet experience influence different variables of technology adoption, such as perceived risk and trust belief.

Anchored in the UTAUT2 model proposed by Venkatesh et al. (2012), the study model was structured to determine the associations among the various precursors of e-booking acceptance, building on this research model (see Figure 7-1 below). Subsequent chapters emphasize the theoretical underpinnings of the research, together with the empirical aspects.

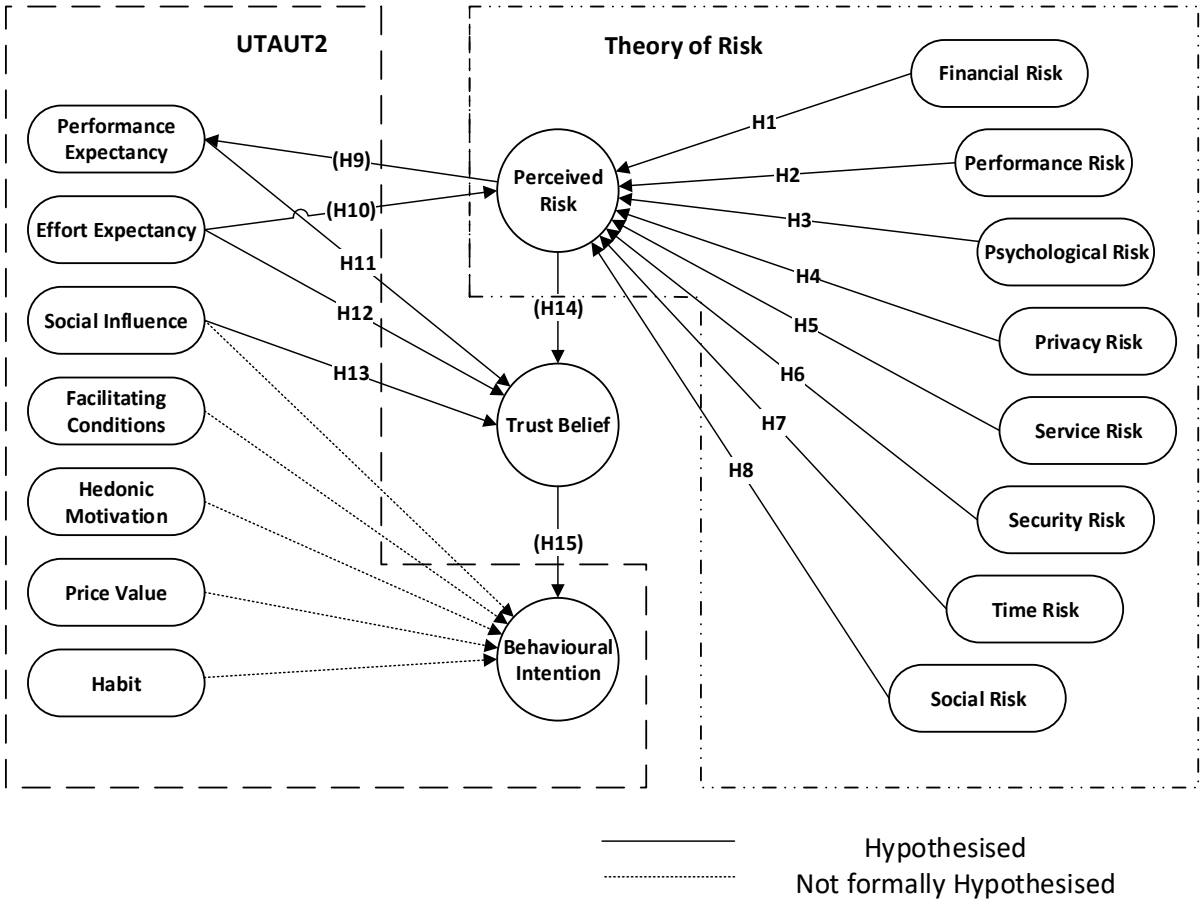

Figure 7-1 Conceptual Model

The second chapter presented a review of the related literature, as well as the theoretical background on the adoption of new technology. This chapter also introduced the concept of risk perception as it relates to embracing online technology. Other relevant models besides the UTAUT2 model were also reviewed and discussed. These included the UTAUT (Unified Theory of Acceptance and Use of Technology, and TAM (Technology Acceptance Model). The aspects of perceived risk and trust belief were introduced and discussed as the main constructs of the UTAUT model. The review focused on defining the terms, models, theories and measurements, as well as previous research findings. These were used later on in the fourth chapter, for development of the conceptual framework. In the review, each of the

constructs, and its association with consumer choice over technology acceptance were discussed. It was suggested that these constructs were more significant in evaluating consumer behaviour in relation to embracing hotel e-booking services. These constructs were suggested because they appeared to comprise individual consumer features, coupled with technological benefits.

The third chapter featured conceptualizing of the research basis, which was generated from the literature review conducted in the second chapter. This research basis comprised 15 hypotheses. This framework suggested that a consumer's decision to embrace hotel e-booking services is strongly impacted by effort expectancy, performance expectancy, trust belief and perceived risk.

The fourth chapter introduced the methodological underpinnings of the study. To start with, the research elaborated on the philosophical foundations and assumptions underlying the present study, initially focusing on the reasons why these features encouraged adoption of the research model. These related to the philosophical expectations of critical realism and the preliminary phenomenology standpoint in the exploratory phase of the study. Consequently, the data collection methods, research design and the instruments of data collection were described and discussed. Specifically, this chapter elaborated on the data collection procedure in its entirety, from the interviews with focus groups to the distribution of online questionnaires. This was preceded by a discussion on the sampling procedures, comprising the sampling frame, the study population, selection of the samples, sample sizes and justification of the selection procedure adopted. The results of focus group interviews, which were carried out in the exploratory phase of the research, were then introduced. Lastly, this chapter presented a brief explanation of the instruments and measuring scales, including tests

for validity and reliability, and the statistical procedures and data analysis methods which were used. The latter entailed descriptive analysis, through multivariate analysis with the SEM-PLS (Structural Equation Modelling-Partial Least Squares) method, using SEM-PLS.

The fifth chapter focused on the preliminary analysis established from the outcome of data collection using SEM-PLS. To begin with, this section reported the cleaning process performed on the derived data for the 18 constructs, along with the results of validity and reliability assessment. The fifth chapter also included the regression analyses undertaken to investigate the anticipated associations between and among the variables. This was followed by descriptive analysis conducted on the data that had been gathered, using tables, graphs and figures. The results of these analyses were presented in this section. Furthermore, descriptive statistics were employed to define the demographic features, as well as the demography of electronic booking customers. These statistics included standard deviations, mean values and significance tests. The second section of this chapter was organized into two major portions, subject to the two-step methodology of Structural Equation Modelling. The first portion consisted of EMM (Evaluation of Measurement Model), which observed discriminant validity, reliability, unidimensionality and convergent validity. The associated results were generated and reported in this section. The second portion comprised ESM (Evaluation of the Structural Model). Here, the R^2, coupled with variances were generated and reported.

The sixth chapter provided the responses to the research questions, based on the results of data analysis and supported by the research outcomes.

The seventh and final chapter outlines the general summary of the thesis. This chapter also explores the implications of the findings of this research on practice and theory, while at the

same time offering recommendations to guide marketers of electronic services on the steps they can take to improve their marketing strategies. The chapter proceeds to outline the limitations, future directions and contributions of this research, ending with an inclusive conclusion.

7.3 Managerial Implications

Consumers have different learning abilities, and services providers need to address this by personalizing their services to accommodate various consumers' wants and orientations. For instance, based on consumers' preferences, hoteliers can give their customers the right to add or cancel some of the services they have bought. They should make it easy to navigate and search for products, making it possible to narrow the search with more appealing and effective results. Consumers value their own time, and do not want to spend time having to learn how things work on the website. Therefore, sampling the way it works is a very important matter.

Furthermore, hotel booking providers should make it easier for consumers to access their account on the Internet, and require less sensitive information from them, as some consumers are over-anxious about privacy, which makes them perceive technology usage as difficult and not worth using.

In addition, hoteliers' efforts should be directed towards allowing consumers to build their own visual preferences of website contents. For example, individuals could pick the colours

and control the content displayed so they can relate more to the website. They could also give the consumer more payment choices by setting up direct debits or paying through ATM machines with their reference number.

Consumers' negative impressions towards the use of hotel e-booking services sometimes occur based on perceptions and bad impressions that can be far from the truth and could be based on prior negative experience. Therefore, developers should put more effort into helping consumers learn about new systems and services and the benefits of using these in the long-term.

7.3.1 Make it Simple and Useful

Hotel e-booking firms need to know that consumers view e-booking as beneficial, since it provides them with the convenience to book from the comfort of their own homes, while also allowing them to seek and compare prices and products across different retailers. This allows e-bookers the luxury of booking 24/7 and offers the additional benefits of lower prices and greater product customization. Hotel e-booking firms need to appreciate the factors which sway e-bookers towards e-booking and to stress these benefits in their communications. The retailers should occasionally increase these benefits through offering added services and facilities, such as guarantee of lowest price, free cancellations, or free delivery of products straight to the doorstep or airport. Such efforts would expand performance expectancy in e-booking, which would in turn motivate more consumers to adopt e-booking.

Hotel e-booking firms need to enhance the simplicity of e-booking procedures. This could be achieved through more user-friendly website designs and development, and/or availability of

online support. When designing a hotel's website, providers need to focus on user friendliness, as well as ease of navigation. This will improve consumers' perception of the site's usefulness, which will in turn motivate these users to utilise the service. To provide a user-friendly website characterised by ease of booking, the website should be designed focusing on the needs of users, and subject to the skill levels and competencies of the target users. For instance, an effective website should include customized features based on the detected skill level of the user, or alternative access, subject to connection speed. More savvy users should be offered more detailed information and content, using a variety of media. Furthermore, electronic booking services should be offered and optimised for other Internet enabled devices, such as iPads, smart phones and other portable gadgets.

7.3.1 Lower Risk for Higher Trust

As previously noted, perceived risk has an incidental impact on the consumer's choice to embrace e-booking services because of trust belief. It has been observed that this entirely mediates the association between perceived risk and behavioural intention in hotel e-booking services. This research has observed that privacy, financial aspects and time components are strong predictors of the degree of perceived risk in e-booking, because personal data must be provided and processed to make a reservation or purchase. This has several implications to provide guidance in creating marketing tactics for hotel e-booking.

Firstly, due to the rapid increase in the adoption of transaction systems, security and confidentiality have emerged as vital determinants of the consumer's choice to adopt online purchasing, or not. As a result, it is essential to ensure that the retailer does not receive money from the online booker absent of any given form of authorization, such as an electronic

signature or password. In any case, the personal information of the e-booker must be secured through various avenues, such as the Secure Socket Layer (SSL). SSL uses a public key signature to protect communications conducted over the Internet. Additionally, it is essential to restrict knowledge on the parties engaged in the transaction, as well as information on what has been purchased and the amount of money exchanged. E-bookers generally seek anonymity, and desire that their various transactions made online cannot be traced. The hotel e-booking provider should therefore take note of this. Furthermore, parties should be provided with the opportunity and capability to engage in a transaction when they want. Lastly, payments should not be visible to either party, but must be reliable.

Secondly, modern consumers tend to be easily annoyed by unsolicited or unwelcome communications over the Internet. These customers are therefore unlikely to buy any products from the websites from which these unsolicited communications originate. For example, spam emailing has been criticized as an ineffective method of attracting customers to go to a specific site. This is because they will most likely ignore such prompts, unless the established contact is anchored in legitimate approaches. This suggests that the hotel e-booking provider needs to be careful when executing various marketing tactics and strategies. They also need to be selective. Therefore, it is recommended that hotel e-booking providers ponder on the permitted marketing strategy to ensure that it is suitable within the online marketing context. Furthermore, it presents a more effective use of a firm's resources because advertisements are only sent to those who are interested in the product.

Third, e-bookers show a higher probability of making a purchase from a web retailer who is low risk, even in situations where the booker perceived the site as difficult to use or useless (Jarvenpaa & Tractinsky, 1999). Therefore, decreasing this kind of risk is crucial for web

retailers. Issues associated with online transactions (such as privacy assurance, credit card security, seller reliability and access to main credit cards, etc.), and aspects associated with low cost (comparatively cheaper than street agents, quick delivery times, money back guarantee, etc.) play a pivotal role in e-booking of hotel services. Therefore, it is essential for hotel e-booking providers to establish a risk-free appearance in order to attract more customers to the e-booking platforms. One of the ways in which retailers can achieve this is by motivating credit card companies to prioritize consumer protection guarantees, to mitigate privacy and security risks as perceived by the consumer. The hotel e-booking providers should also show due diligence by regularly monitoring for any updates on customers' mailing addresses and e-mail, to ensure that online purchases are delivered to the right addresses, and confirmations sent to the correct email addresses.

Lastly, CRM (Customer Relationship Management) is a vital approach, which can be adopted to build a trusting relationship between online bookers and online retailers. Retailers can cultivate close relationships with online bookers by keeping in touch with them post purchase (such as sending courtesy messages). This will have the effect of attracting bookers to visit the hotel's site again in the future.

7.3.2 Characteristic of Saudi e-Booking Consumer

This research has uncovered significant inferences for the e-marketing tactics of hotel offers. Because the emphasis of this research was to develop a better understanding of hotel e-bookers, there are several notable implications for e-booking practice. Firstly, the profile of an e-booker (as explained in Section 5.2) reveals that most hotel e-bookers in the Kingdom of Saudi Arabia are male, young, educated, with well-paid jobs and in a relationship. This

information is valuable because it can guide hotel e-booking firms in defining their target market. This profile is also a valuable source of information, assisting marketers in planning appropriate product offers designed for specific market segments, or in guiding the launch of new products. The continued growth of the human presence on the Internet is diverting the attention of retailers to the development of market products which consumers are more likely to purchase. A good example is a football event package.

Secondly, the frequency of use of e-booking, coupled with the span of Internet usage and the amount of searching for information related to hotel services were found to be associated with the profile of an e-booker. E-bookers are largely technology savvy, sensitive to price, and keen to discover differences in their web experience because of their active engagement in online searching. Therefore, it is very important for hotel e-booking firms to develop more advanced and effective marketing approaches to enhance their competitive advantage. Marketing strategies, including, but not limited to e-vouchers, loyalty and/or membership programmes, referral programmes, or cash-back schemes may have the ability to motivate repeat buying and valuable word of mouth recommendation from this group of consumers. Moreover, due to the fast transmission of the Internet, coupled with economic and social changes, low income and less educated members of the population are gaining access to the Internet, and becoming more accustomed to using it.

Thirdly, the geodemographic and demographic profile of e-bookers can also be adopted to fine-tune market positioning and segmentation tactics, while at the same time highlighting the benefits presented to e-bookers. This could also promote the development of more personalised marketing promotion, which is able to attract e-bookers particularly, because they are likely to make impulsive buying decisions when the new product on offer appeals to

them. Additionally, personalization and customization are crucial in developing online relationships. Because the demands and needs of consumers differ subject to their demographic factors and lifestyles, personalized messages and services designed for various groups (such as young people, old people, families, or the handicapped) are crucial in attracting these groups to embrace e-booking. Based on the changing patterns of individualization in contemporary society, more and more modern consumers are demanding personalized offers, which are consistent with their lifestyle tastes and needs.

In the end, developing a better understanding of the profile of e-bookers will assist marketers to develop and design more effective strategies, which are able to sway Internet users to adjust their behaviour from simply searching for information online, to actual bookings conducted over the Internet. Additionally, these strategies will need to inculcate user-friendly purchasing procedures, optimised to guarantee success during the preliminary buying efforts, as well as processes to enhance the degree of consumer trust. On the other hand, traditional retailers who are more conversant with the profile of online bookers could also make use of this knowledge to develop a better understanding of the new market populace, to retain their market share or to regain it by adopting electronic commerce.

7.4 Study Limitation

One of the limitations of this study was the use of a cross-sectional approach, which was necessary to meet the time constraints of the study. Several related UTAUT studies have adopted a longitudinal approach, which allowed data to be collected from different points in time for measuring behavioural intentions and other independent variables at different

instances in time to determine the associated changes on the dependent variable (Venkatesh et al., 2003; Venkatesh & Davis, 2000). The current study, however adopted a cross-sectional design, whereby data was collected over a singular period. Consequently, behavioural intention (BI), coupled with the other independent variables associated with e-booking hotel services were evaluated at the same time. This is consistent with other related research (Agarwal & Prasad, 1997; Venkatesh & Morris, 2000; Gefen et al., 2003). This study therefore recommends a longitudinal approach anchored in the latest UTAUT2 model, to offer greater interpretation of the various factors of the UTAUT2 model, and to allow for better interpretation of the influence of interventions on BI.

This study also suffers from the limitation of generalizability. Because it was undertaken on e-bookers in the Kingdom of Saudi Arabia, it is arguable that the purchasing patterns and behaviours of these users might be greatly affected by the level of technological development in the country. Therefore, generalizability of the research findings to other countries may not be applicable. It is possible that had the study been conducted within the context of a more developed nation, then the findings and patterns established, together with the relevant constructs, may have been completely different. This therefore necessitates further research to address the issue, including assessment of the deeper multi-cultural generalizability concerns.

Furthermore, the data utilised in the current research was primarily derived from the central and western parts of the country. Nonetheless, the profile of the respondents indicates that these participants came from mixed locations and had mixed educational backgrounds (see Section 5.2).

An additional limitation of the present study is that it was limited to the hospitality industry context and e-booking of hotel services. Thus, the generalizability of the research findings is constrained by the unique features of this industry. This also suggests that generalizations of these findings beyond the hospitality industry should be inferred with caution.

Lastly, the measures for the entire range of research constructs adopted in this study were composed simultaneously, and with the same apparatus. Therefore, there is a high likelihood for common method variance because of this singularity in time and instruments (Straub et al., 1995). This notwithstanding, there was no sign of absence of discriminant validity in the primary constructs, which is the common indicator of common method variance. Therefore, future studies could adopt a more controlled experiment to avoid the situation of respondents offering identical answers across all the constructs.

7.5 Directions for Future Research

The various limitations outlined above pave the way for valuable directions of future studies to enhance the findings of this research. Therefore, this section suggests a series of fascinating study ideas for further exploration in line with the knowledge generated from conducting this research.

First Research Idea: Although the present study has endeavoured to take in a wide array of variables for explaining the factors, which influence consumer adoption of technology, it seems evident that other factors, which are linked with complex consumer features need to be further, investigated and possibly incorporated in a more inclusive theoretical framework. In a broader sense, future research should endeavour to expand the models of technology

acceptance further, in order to include other significant theoretical concepts (Bagozzi, 2007; Venkatesh et al., 2012). The discovery of direct associations of external variables besides the UTAUT2 variables may be indicative of the idea that the UTAUT2 model needs to be expanded to comprise other mediating factors within Internet marketing settings. Future research could attempt to extend the models of technology acceptance even further, to include other theoretical concepts, which are pertinent to e-booking. It would be fascinating, for instance, to investigate the roles played by personal traits, booking orientation, consumer satisfaction and social influence on the adoption of e-booking.

Second Research Idea: The current study explored hotel services as part of a singular industry, even though hotel services normally include leisure, hospitality and tourism destination companies. Thus, it would be theoretically beneficial for future research to corroborate the generalizability of the research framework, with respect to the various products and business types existing within or outside the hospitality industry.

Additionally, because the current study was anchored in specific travel services – 'hotel services', it could be fascinating for subsequent studies to attempt to replicate this research to corroborate the generalizability of the conceptual model utilised in this study, but based on specific travel services, such as hotels, airlines, or others. This presents a promising path, because it is assumed that all the measures applied within this research can be applied to any tourism services. It is perceived that by undertaking research in each travel service context, it would be possible to explicitly identify consumer adoption behaviour, which would in turn promote the development of product/service tactics, which could be adequately employed to drive greater overall returns and contribute to performance improvements.

Third Research Idea: As previously noted, future research structured on a longitudinal approach might be valuable in assessing the spatial underlying forces of e-bookers' adoption of new technology behaviour, particularly because the current study employed a cross-sectional research design. This concern is, however, relieved to a certain extent, because the UTAUT2 concepts have been revealed to affect the use of technology in longitudinal studies (Venkatesh et al., 2003; Venkatesh et al., 2012). Although a longitudinal research approach is comparatively more time-consuming and costly, it has the potential to provide stronger suggestions for causation and may improve the current understanding of the features of consumption. Additionally, a longitudinal design may improve the level of understanding on the cumulative and dynamic influences existing among the hypothesized relationships. Thus, this study recommends that future studies adopt a longitudinal research design.

Fourth Research Idea: When predicting the influence of perceived risk on e-booking of hotel services, this study found that this construct was mediated by trust belief towards BI. This outcome could be clarified by assuming that TR and PR will mainly lean towards usefulness and usability of behavioural intention about the use of technology. It is important to re-examine these relationships across different stages of consumer acceptance of new technology. It would therefore be interesting to explore the significance of this linkage in the marketing contexts. Furthermore, there are several mediators which have not been investigated, but which have been found to substantially facilitate the association between behavioural intention and constructs (See Appendix VI). In this study only, hypothesised mediation was discussed.

Lastly, more advanced studies should be carried out to validate and replicate the model, and to determine the robustness of the present study. Because the generalizability of the adopted

model is innately restricted to the hospitality services settings and context, the adopted model and study hypotheses ought to be expanded past the present context and into other contexts, such as the insurance industry or the airline industry. In so doing, these replicated studies could potentially expand the generalizability of the results obtained in the current research. This research path is potentially valuable, since the tourism industry is perceived as possessing the largest rate of growth over the Internet.

Final statement

The present study addresses dimensions, which could potentially benefit researchers in developing a greater understanding of the processes involved in consumers' decisions to adopt e-booking. This model serves to clarify three main issues. First, it details the type of people who make e-bookings over the Internet. Secondly, it clarifies the various factors, which promote consumers' adoption of e-booking. Thirdly, it clarifies which characteristics and qualities are comparatively significant regarding intention. This framework therefore extends IS research. Furthermore, the study proposes that the theories recommended by various leading researchers be integrated into a single framework to enhance the level of understanding and prediction ability of consumer adoption about Internet booking. This is perceived as more comprehensively stable as compared to relying on a singular theory. In closing, the theoretical framework of this study proposes the integration of existing research as a catalyst for future systematic studies within the field of online consumer behaviour.

The outcome of this study offers primary evidence that past technology acceptance and diffusion studies, together with the substantial body of knowledge structured around the

UTAUT2 model, may provide a sound foundation for the required research into consumer acceptance of Internet related undertakings. Associations between the main UTAUT2 constructs revealed in this study are consistent with those generated in previous UTAUT2 studies. This study has added to the current body of knowledge, and provided a summary of various research suggestions, which could go a long way in providing a more comprehensive understanding of consumer acceptance of electronic booking. This research model is one of the pioneer studies integrating perceived risk with consumer adoption of new technology literature, employing the UTAUT2 model to assist in initiating the integration of multi-disciplinary research in electronic marketing. The research framework of this research overtly considers trust belief and perceived risk as key concepts, besides UTAUT2 concepts, involved in consumer acceptance of e-booking of hotel services. The extent of the primary drivers have been cautiously identified and then analysed. In closing, a better understanding of consumer acceptance of e-booking is crucial because a greater level of adoption is linked with several significant outcomes.

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Appendix

Appendix I

Measurement Scale

Constructs	Definition	Modified Items	Indicators	Original Items	Items source
Perceived Risk	Perceived risk: "*A general measure of perceived risk when all criteria are evaluated together"* (Featherman & Pavlou, 2003: 455)	PR1: Overall, considering all sorts of factors combined, about how risky would you say it would be to sign up for and use hotel	Not risky at all/ Very risky Strongly	Overall, considering all sorts of factors combined, about how risky would you say it would be to sign up for and use XXXX?	(Featherman & Pavlou, 2003)

		e-booking services? PR2: Using hotel e-booking services to pay my hotel bills would be risky. PR3: Hotel e-booking services are dangerous to use. PR4: Using hotel e-booking services would add great uncertainty to my bill paying. PR5: Hotel e-booking services expose you to an overall risk.	disagree/agree Strongly disagree/agree Strongly disagree/agree Improbable/probable	Using XXXX to pay my bills would be risky. XXXX are dangerous to use. XXXX would add great uncertainty to my bill paying. XXXX exposes you to an overall risk.	
	Financial risk: *"The potential monetary outlay associated with the initial purchase price as well as the subsequent maintenance cost of the product and potential finance loss due to fraud"* (Featherman & Pavlou, 2003:455)	FR1: What are the chances that you stand to lose money if you use the hotel e-booking service? FR2: Using hotel e-booking services subjects your current account to potential fraud. FR3: My signing up for and using a hotel e-booking	Low/high chance of losing ££ Strongly disagree/agree Improbable/ probable Strongly	What are the chances that you stand to lose money if you use the XXXX? Using an Internet-bill-payment service subjects your current account to potential fraud. My signing up for and using an XXXX would lead to a financial loss for me.	(Featherman & Pavlou, 2003)

	service would lead to a financial loss for me. FR4: Using hotel e-booking services subjects your current account to financial risk.	disagree/agree	Using an Internet bill-payment service subjects your current account to financial risk.	
Performance risk: *"The possibility of the product malfunctioning and not performing as it was designed and advertised and therefore failing to deliver the desired benefits."* (Featherman & Pavlou, 2003: 455)	PR1: The hotel e-booking service might not perform well and create problems with my credit. PR2: The security systems built into the hotel e-booking service are not strong enough to protect my current account. PR3: What is the likelihood that the performance of the hotel e-booking service does not work properly? PR4: Considering the	Strongly disagree/ agree Strongly disagree/ agree Low/high functional risk Not risky at all/ risky Strongly disagree/ agree	The XXXX might not perform well and create problems with my credit. The security systems built into the XXXX are not strong enough to protect my current account. What is the likelihood that there will be something wrong with the performance of the XXXX or that it will not work properly? Considering the expected level of service performance of the XXXX, for you to sign up for and	. (Featherman & Pavlou, 2003)

		expected level of service performance of the hotel e-booking service, for you to sign up for and use it would be risky. PR5: Hotel e-booking service servers may not perform well and process payments incorrectly.		use it would be. XXXX servers may not perform well and process payments incorrectly.	
	Psychological risk: *"The risk that the selection or performance of the producer will have a negative effect on the consumer's peace of mind or self-perception."* (Featherman & Pavlou, 2003: 455)	SYC1: The hotel e-booking service will not fit in well with my self-image or self-concept. SYC2: The usage of hotel e-booking services would lead to a psychological loss for me. SYC3: It would not fit in well with my self-image or self-concept.	Low/high psychological risk Improbable/ probable Improbable/ probable	The XXXX will not fit in well with my self-image or self-concept. 2. The usage of an XXXX would lead to a psychological loss for me. It would not fit in well with my self-image or self-concept.	(Featherman & Pavlou, 2003)
	Social risk: *"Potential loss of status in one's social group because of adopting a product or service, looking foolish*	SOR1: What are the chances that using the hotel e-booking services will negatively affect the way	Low/high social risk Improbable/ probable	What are the chances that using the XXXX will negatively affect the way others think of you?	(Featherman & Pavlou, 2003)

	or untrendy." (Featherman & Pavlou, 2003,:455)	others think of you? SOR2: My signing up for and using hotel e-booking services would lead to a social loss for me. SOR3 My friends and relatives would think less highly of me if I use hotel e-booking services.	Improbable/ probable	My signing up for and using an XXXX would lead to a social loss for me . My friends and relatives would think less highly of me if I use XXXX.

	Time risk: *"Consumers may lose time when making a bad purchasing decision by wasting time researching and making the purchase, learning how to use a product or service only to have to replace it if it does not perform to expectations."* (Featherman & Pavlou, 2003: 455)	TM1: If you had begun to use hotel e-booking services, what are the chances that you will lose time due to having to switch to a different payment method? TM2: My signing up for and using hotel e-booking services would lead to a loss of convenience to me because I would have to waste a lot of time fixing payments errors. TM3: Considering the investment of my time involved in switching to (and set up) hotel e-booking services makes them risky. TM4: The possible time loss from having to set-up and learn how to use hotel e-booking services.	Low/high loss of time risk Improbable/probable Not risky at all/ very risky Not risky at all/very risky	If you had begun to use an XXXX, what are the chances that you will lose time due to having to switch to a different payment method? My signing up for and using an XXXX would lead to a loss of convenience for me because I would have to waste a lot of time fixing payments errors. Considering the investment of my time involved to switch to (and set up) an XXXX makes them risky. The possible time loss from having to set-up and learn how to use e-bill payment makes it risky.	(Featherman & Pavlou, 2003)

	Privacy risk: *"Potential loss of control over personal information, such as when information about you is used without your knowledge or permission. The extreme case is where a consumer is 'spoofed' meaning a criminal uses their identity to perform fraudulent transactions."* (Featherman & Pavlou, 200:455)	PRY1: What are the chances that using hotel e-booking services will cause you to lose control over the privacy of your payment information? PRY2: My signing up for and using hotel e-booking service would lead to a loss of privacy for me because my personal information would be used without my knowledge. PRY3: Internet hackers (criminals) might take control of my current account.	Improbable/ probable Improbable/ probable Strongly disagree/ agree	What are the chances that using an XXXX will cause you to lose control over the privacy of your payment information? My signing up for and using an XXXX would lead to a loss of privacy for me because my personal information would be used without my knowledge. Internet hackers (criminals) might take control of my current account if I used an XXXX.	(Featherman & Pavlou, 2003)

	Security risk: *"The risk that the system or software of the third parties is not stable or vulnerable to network attacks."* *(Pennington, Wilcox & Grover 2003 cited in Featherman &Pavlou 2003:455)*	SCR1: That the transaction information will be hacked by or viruses caused by security lapses of operation system or online payment tools. SCR2: That my account information will be illegally used. SCR3: That payment platform cannot work properly.	I worry (strongly disagree/agree)	That the transaction information will be hacked or viruses caused by security lapses of operation system or online payment tools. That my account information will be illegally used. That payment platform cannot work properly.	(Pennington et al., 2003)
	Service risk: "*The probability that the firm will not offer a good service in the future."* (Lopez-Nicolas & Molina-Castillo, 2008:104)	SR1: That if I use hotel e-booking services, it would be difficult to communicate with the hotel-booking platform when I need help. SR2: That if I use hotel e-booking services, it would be difficult to communicate with the bank or third-party platform when I need help.	I worry (strongly disagree/agree)	That if I apply for an online payment account, it is difficult to communicate with the bank or third-party platform when I need help. That if I use an online payment account, it is difficult to communicate with the bank or third-party platform when I need help.	(Lopez-Nicolas & Molina-Castillo, 2008)
Trust	*"A psychological state leading to the willingness of consumers to*	TR1: Although it is risky, I am still willing to book a	Strongly	Although it's risky, I still willing to use the system	(Yousafzai et al., 2003)

	perform payment transaction over Internet and expect the fulfilling its obligations, irrespective of consumers' ability to control platform's action" (Yousafzai et al., 2003:849)	room and pay a bill online. TR2: I would like to encourage my friends to use hotel e-booking services. TR3: I feel comfortable when using hotel e-booking services.	disagree/agree	I would like to encourage my friends to use the system. I feel comfortable when using the system.	
Performance Expectancy	*"The degree to which an individual believes that using particular system would enhance his or her job performance"* (Moore & Benbasat, 1991:197)	PE1: I find hotel e-booking services useful in planning my trip. PE2: Using hotel e-booking services helps me accomplish the reservation more quickly. PE3: Using hotel e-booking services increases my productivity.	Strongly disagree/agree	I would find the system useful in my job. Using the system enables me to accomplish tasks more quickly. Using the system increases my productivity. If I use the system, I will increase my chances of getting a raise.	(Venkatesh et al., 2003)
Effort Expectancy	*"The degree of ease associated with consumers' use of System."* (Venkatesh et al., 2003:450)	EE1: My interaction with the hotel e-booking service should be clear and understandable. EE2: It would be easy for me to become skilful at	Strongly disagree/agree	My interaction with the system would be clear and understandable. It would be easy for me to become skilful at using the system. I would find the system	(Venkatesh et al., 2003)

		using hotel e-booking services. EE3: I would find the hotel e-booking service easy to use. EE4: Learning to use hotel e-booking services is easy for me.		easy to use. Learning to operate the system is easy for me.	
Social Influence	*"The extent to which consumers perceive that important others (e.g. family and friends) believe they should use the system."* (Venkatesh et al., 2012:159)	SI1: People who are important to me think that I should use hotel e-booking services. SI2: People who influence my behaviour think that I should use hotel e-booking services. SI2: People whose opinions that I value prefer that I use hotel e-booking services.	Strongly disagree/agree	People who are important to me think that I should use mobile Internet. People who influence my behaviour think that I should use mobile Internet. People whose opinions that I value prefer that I use mobile Internet.	(Venkatesh et al., 2012)
Facilitating Condition	*"Refers to consumers' perceptions of the resources and support available to perform a behaviour."* (Venkatesh et al., 2012:159)	FC1: I have the resources necessary to use the hotel e-booking service. FC2: I have the knowledge	Strongly disagree/agree	I have the resources necessary to use the system. I have the knowledge necessary to use the	(Venkatesh et al., 2003)

		necessary to use the hotel e-booking service. FC3: The hotel e-booking service is not compatible with other systems I use. FC4: A specific person (or group) is available for assistance with system difficulties.		system. The system is not compatible with other systems I use. A specific person (or group) is available for assistance with system difficulties.	
Hedonic Motivation	*"Fun or pleasure derived from using the technology."* (Venkatesh et al., 2012:161)	HM1: Using hotel e-booking services is fun. HM2: Using hotel e-booking services is enjoyable. HM3: Using hotel e-booking services is very entertaining.	Strongly disagree/agree	Using mobile Internet is fun. Using mobile Internet is enjoyable. Using mobile Internet is very entertaining.	(Venkatesh et al., 2012)
Habit	*"An automatic reaction toward a situation."* (Venkatesh et al., 2012)	HA1: The use of hotel e-booking services has become a habit for me. HA2: I am addicted to using hotel e-booking services. HA3: I must use hotel e-	Strongly disagree/agree	The use of mobile Internet has become a habit for me. I am addicted to using mobile Internet. I must use mobile Internet. Using mobile Internet has	(Venkatesh et al., 2012)

		booking services. HA4: Using hotel e-booking services has become natural to me.		become natural to me.	
Price value	*"Consumers' cognitive trade-off between the perceived benefits of the applications and the monetary cost for using them."* (Dodds et al., 1991)	PV1: I can save money by examining the prices of different hotel e-booking services. PV2: I like to search for cheap room deals in different hotel company e-commerce websites. PV3: Hotel e-booking services offer better value for money.	Strongly disagree/agree	I can save money by examining the prices of different airline company e-commerce websites. I like to search for cheap travel deals in different airline company e-commerce websites. Airline company e-commerce websites offer better value for my money.	(Escobar-Rodríguez & Carvajal-Trujillo, 2013)
Behavioural Intention	A measure of the strength of one's intention to perform a specific behaviour.	BI1: I intend to continue using hotel e-booking services in the future. BI2: I will always try to use hotel e-booking services when booking a room. BI3: I plan to continue to use hotel e-booking services frequently.	Strongly disagree/agree	I intend to use the system in the next <n> months. I predict I would use the system in the next <n> months. I plan to use the system in the next <n> months.	(Venkatesh et al., 2003)

Appendix II

Normality

	No.	Missing	Mean	Median	Min	Max	Standard Deviation	Excess Kurtosis	Skewness
PER1	2	42	2.965	3	1	5	1.173	-1.188	-0.142
PER2	3	0	2.209	2	1	5	1.080	-0.603	0.635
PER3	4	42	2.641	2	1	5	1.190	-1.266	0.183
PER4	5	0	2.376	2	1	5	1.104	-0.711	0.551
PER5	6	63	2.460	2	1	5	1.056	-0.914	0.373
PR1	7	63	2.689	2	1	5	1.133	-1.382	0.025
PR2	8	42	2.872	3	1	5	1.184	-1.249	-0.060
PR3	9	0	2.249	2	1	5	1.071	-0.849	0.566
PR4	10	0	2.415	2	1	5	1.125	-0.793	0.503
PR5	11	42	2.530	2	1	5	1.110	-1.181	0.217
FR1	12	0	2.404	2	1	5	1.121	-0.902	0.480
FR2	13	0	2.516	2	1	5	1.101	-0.709	0.405
FR3	14	42	2.981	3	1	5	1.155	-1.224	-0.157
FR4	15	0	2.495	2	1	5	1.136	-0.957	0.419

	No.	Missing	Mean	Median	Min	Max	Standard Deviation	Excess Kurtosis	Skewness
SYC1	16	0	2.308	2	1	5	1.190	-0.887	0.585
SYC2	17	0	2.217	2	1	5	1.137	-0.482	0.773
SYC3	18	0	2.226	2	1	5	1.063	-0.406	0.726
SCR1	19	0	2.731	3	1	5	1.152	-1.084	0.158
SCR2	20	0	3.170	4	1	5	1.249	-1.160	-0.245
SCR3	21	0	2.832	3	1	5	1.125	-1.207	0.016
TR1	22	0	3.682	4	1	5	1.148	0.083	-0.981
TR2	23	0	3.983	4	1	5	0.875	1.159	-1.011
TR3	24	0	3.854	4	1	5	0.982	0.391	-0.935
SR1	25	0	2.527	2	1	5	1.204	-1.037	0.386
SR2	26	0	2.740	2	1	5	1.158	-1.170	0.211
PE1	27	0	4.314	4	1	5	0.782	2.608	-1.400
PE2	28	0	4.398	4	1	5	0.687	3.809	-1.466
PE3	29	0	3.839	4	1	5	0.912	0.080	-0.631
FC1	30	0	4.028	4	1	5	0.823	1.579	-1.075
FC2	31	0	4.247	4	1	5	0.838	2.259	-1.394
FC3	32	0	2.217	2	1	5	0.963	0.192	0.757
FC4	33	0	3.441	4	1	5	1.002	-0.184	-0.597
EE1	34	0	4.241	4	1	5	0.606	3.946	-0.929

	No.	Missing	Mean	Median	Min	Max	Standard Deviation	Excess Kurtosis	Skewness
EE2	35	0	4.178	4	1	5	0.795	1.918	-1.206
EE3	36	0	4.342	4	1	5	0.725	3.840	-1.473
EE4	37	0	4.297	4	1	5	0.686	2.395	-1.102
SI1	38	0	3.927	4	1	5	0.761	2.184	-0.991
SI2	39	0	3.587	4	1	5	0.989	0.294	-0.732
SI3	40	0	4.037	4	1	5	0.740	2.788	-1.114
HA1	41	0	3.845	4	1	5	1.076	0.340	-0.986
HA2	42	0	3.323	3	1	5	1.186	-0.836	-0.257
HA3	43	0	3.735	4	1	5	0.923	0.061	-0.586
HA4	44	42	3.887	4	1	5	1.016	0.733	-1.061
HM1	45	0	3.916	4	1	5	0.908	0.599	-0.870
HM2	46	0	4.056	4	1	5	0.926	0.988	-1.041
HM3	47	0	3.774	4	1	5	1.015	0.296	-0.810
BI1	48	0	4.361	5	1	5	0.816	2.955	-1.564
BI2	49	0	4.144	4	1	5	0.854	2.711	-1.402
BI3	50	0	4.067	4	1	5	0.881	1.883	-1.247
PV1	51	0	4.437	5	1	5	0.734	5.010	-1.811
PV2	52	0	3.942	4	1	5	1.047	0.467	-1.001
PV3	53	0	3.776	4	1	5	0.881	0.162	-0.571

	No.	Missing	Mean	Median	Min	Max	Standard Deviation	Excess Kurtosis	Skewness
SOR1	54	42	1.872	2	1	5	0.901	0.311	0.917
SOR2	55	42	1.896	2	1	5	0.950	0.506	1.024
SOR3	56	42	1.426	1	1	5	0.73	3.952	1.962
PRY1	57	42	2.986	3	1	5	1.224	-1.263	-0.058
PRY2	58	42	3.014	3	1	5	1.232	-1.251	-0.164
PRY3	59	1	2.765	3	1	5	1.201	-1.146	0.108
TM1	60	42	2.664	2	1	5	1.173	-1.221	0.192
TM2	61	42	2.700	2	1	5	1.184	-1.124	0.247
TM3	62	66	2.303	2	1	5	1.004	-0.544	0.616
TM4	63	42	2.459	2	1	5	1.112	-0.952	0.420
Gender	64	64	1.284	1	1	2	0.451	-1.084	0.960
Age	65	64	2.392	2	1	5	0.901	0.310	0.604
Education	66	65	3.143	3	1	5	0.966	0.294	-0.289
Marriage Status	67	64	1.815	2	1	4	0.525	4.472	0.652
Occupation	68	64	2.010	1	1	4	1.261	-1.224	0.722
Monthly Inc	69	164	3.116	3	1	6	1.033	-0.062	0.366
Computer Skills	70	0	1.905	2	1	4	0.829	-0.479	0.542
How many time per year	71	81	1.919	2	1	4	0.944	-0.065	0.888

Appendix III

Introductory passage & consent

This questionnaire is a part of the research methods conducted for a PhD research entitled "Perceived Risk in Technology Adoption: The context of the Use of Internet Distribution Systems - Hotel Bookings". Please read and follow the instructions for each section carefully. By ticking the box below, you understand that:

1. Your questionnaire will be coded and your name (if you decided to provide it) and address (if you decided to provide it) kept separately from it.

2. Any information that you provide will not be made public in any form that could reveal your identity to an outside party, i.e. you will remain fully anonymous.

3. Aggregated results will be used for research purposes and may be reported in scientific and academic journals (including online publications).

4. Individual results will not be released to any person except at your request and on your authorization.

5. Please note that you are free to withdraw consent at any time during the study, in which event your participation in the research study will immediately cease and any information obtained from you will not be used.

The contact details of the researcher are: Abdullah M. Alomran Phone: +47453994885. Email: a.m.alomran@2013.hull.ac.uk. The contact details of the secretary to the HUBS

Research Ethics Committee are: Amy Cowling, Hull University Business School, University of Hull, Cottingham Road, Hull, HU6 7RX. Email: a.cowling@hull.ac.uktel. 01482-463410. *

☐ Hereby agree to participate in this study

Appendix IV

What is your nationality? *

- [ ] Saudi Arabia
- [ ] Egypt
- [ ] United Arab Emirates
- [ ] Kuwait
- [ ] Qatar
- [ ] Bahrain
- [ ] Oman
- [ ] Libya
- [ ] Jordan
- [ ] Yemen
- [ ] Tunisia
- [ ] India
- [ ] Sudan
- [ ] Lebanon
- [ ] Morocco
- [ ] Iraq
- [ ] Palestinian Territories
- [ ] Syria
- [ ] United Kingdom
- [ ] Afghanistan
- [ ] Albania
- [ ] Algeria
- [ ] Andorra
- [ ] Angola
- [ ] Antigua and Barbuda
- [ ] Argentina

- [ ] Armenia
- [ ] Australia
- [ ] Austria
- [ ] Azerbaijan
- [ ] Bahamas, The
- [ ] Bangladesh
- [ ] Barbados
- [ ] Belarus
- [ ] Belgium
- [ ] Belize
- [ ] Benin
- [ ] Bhutan
- [ ] Bolivia
- [ ] Bosnia and Herzegovina
- [ ] Botswana
- [ ] Brazil
- [ ] Brunei
- [ ] Bulgaria
- [ ] Burkina Faso
- [ ] Burma
- [ ] Burundi
- [ ] Cambodia
- [ ] Cameroon
- [ ] Canada
- [ ] Cape Verde
- [ ] Central African Republic
- [ ] Chad
- [ ] Chile
- [ ] China
- [ ] Colombia

- [ ] Comoros
- [ ] Congo, Democratic Republic of the
- [ ] Congo, Republic of the
- [ ] Costa Rica
- [ ] Cote d'Ivoire
- [ ] Croatia
- [ ] Cuba
- [ ] Cyprus
- [ ] Czech Republic
- [ ] Denmark
- [ ] Djibouti
- [ ] Dominica
- [ ] Dominican Republic
- [ ] East Timor (see Timor-Leste)
- [ ] Ecuador
- [ ] El Salvador
- [ ] Equatorial Guinea
- [ ] Eritrea
- [ ] Estonia
- [ ] Ethiopia
- [ ] Fiji
- [ ] Finland
- [ ] France
- [ ] Gabon
- [ ] Gambia, The
- [ ] Georgia
- [ ] Germany
- [ ] Ghana
- [ ] Greece
- [ ] Grenada

- [ ] Guatemala
- [ ] Guinea
- [ ] Guinea-Bissau
- [ ] Guyana
- [ ] Haiti
- [ ] Holy See
- [ ] Honduras
- [ ] Hong Kong
- [ ] Hungary
- [ ] Iceland
- [ ] Indonesia
- [ ] Iran
- [ ] Ireland
- [ ] Israel
- [ ] Italy
- [ ] Jamaica
- [ ] Japan
- [ ] Kazakhstan
- [ ] Kenya
- [ ] Kiribati
- [ ] Kosovo
- [ ] Kyrgyzstan
- [ ] Laos
- [ ] Latvia
- [ ] Lesotho
- [ ] Liberia
- [ ] Liechtenstein
- [ ] Lithuania
- [ ] Luxembourg
- [ ] Macau

- [ ] Macedonia
- [ ] Madagascar
- [ ] Malawi
- [ ] Malaysia
- [ ] Maldives
- [ ] Mali
- [ ] Malta
- [ ] Marshall Islands
- [ ] Mauritania
- [ ] Mauritius
- [ ] Mexico
- [ ] Micronesia
- [ ] Moldova
- [ ] Monaco
- [ ] Mongolia
- [ ] Montenegro
- [ ] Mozambique
- [ ] Namibia
- [ ] Nauru
- [ ] Nepal
- [ ] Netherlands
- [ ] Netherlands Antilles
- [ ] New Zealand
- [ ] Nicaragua
- [ ] Niger
- [ ] Nigeria
- [ ] North Korea
- [ ] Norway
- [ ] Pakistan
- [ ] Palau

- [ ] Panama
- [ ] Papua New Guinea
- [ ] Paraguay
- [ ] Peru
- [ ] Philippines
- [ ] Poland
- [ ] Portugal
- [ ] Romania
- [ ] Russia
- [ ] Rwanda
- [ ] Saint Kitts and Nevis
- [ ] Saint Lucia
- [ ] Saint Vincent and the Grenadines
- [ ] Samoa
- [ ] San Marino
- [ ] Sao Tome and Principe
- [ ] Senegal
- [ ] Serbia
- [ ] Seychelles
- [ ] Sierra Leone
- [ ] Singapore
- [ ] Slovakia
- [ ] Slovenia
- [ ] Solomon Islands
- [ ] Somalia
- [ ] South Africa
- [ ] South Korea
- [ ] South Sudan
- [ ] Spain
- [ ] Sri Lanka

- [ ] Suriname
- [ ] Swaziland
- [ ] Sweden
- [ ] Switzerland
- [ ] Taiwan
- [ ] Tajikistan
- [ ] Tanzania
- [ ] Thailand
- [ ] Timor-Leste
- [ ] Togo
- [ ] Tonga
- [ ] Trinidad and Tobago
- [ ] Turkey
- [ ] Turkmenistan
- [ ] Tuvalu
- [ ] Uganda
- [ ] Ukraine
- [ ] United States
- [ ] Uruguay
- [ ] Uzbekistan
- [ ] Vanuatu
- [ ] Venezuela
- [ ] Vietnam
- [ ] Zambia
- [ ] Zimbabwe

Region *

- [ ] Riyadh
- [ ] Mecca
- [ ] Dammam

- [ ] Madinah
- [ ] Qassim
- [ ] Asser
- [ ] Tabuk
- [ ] Hail
- [ ] Jizan
- [ ] Najran
- [ ] Baha/الباحة
- [ ] Jouf/الجوف
- [ ] North Border/ الحدود الشمالية

How much time do you spend on the Internet during the day? *

- [ ] All day
- [ ] Less than 18 hours
- [ ] Less than 12 hours
- [ ] Less than 6 hours
- [ ] Less than 3 hours
- [ ] Less than 1 hour

Please rate your computer skills? *

	Excellent	Very good	Good	Fair	Poor
Computer Skills	☐	☐	☐	☐	☐

Have you booked a hotel room in the last 12 months?

- [ ] Yes
- [ ] No

Did you make this booking through the Internet? *

- [ ] Yes
- [ ] No

How often do you book a hotel room through the Internet? *

- [ ] 0-2 times a year
- [ ] 3-6 times a year
- [ ] 6-9 times a year
- [ ] over 10 times a year

Which websites do you mostly use? *

- [ ] Booking.com
- [ ] Hotel.com
- [ ] Agoda.com
- [ ] Expidia.com
- [ ] Orbitiz.com
- [ ] Travelocity.com
- [ ] CheapTicket.com
- [ ] Priceline.com
- [ ] Hotwire.com
- [ ] Other (please specify):

Please indicate the main reason for not making an online reservation during the period *

- [ ] I prefer traditional reservation methods via phone, walk-in, or travel agency.
- [ ] I do not know how to use hotel booking websites.
- [ ] I was advised not to use the website.
- [ ] I am worried about the risk involve in website transactions.
- [ ] I have not stayed in a hotel.
- [ ] Other (please specify):

Please indicate the degree of your agreement with each of the following statements: *

	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
1- Using an Internet booking website to pay my hotel bills would be risky.	☐	☐	☐	☐	☐
2- Using an Internet booking website subjects my current account to potential fraud.	☐	☐	☐	☐	☐
3- An Internet booking website is dangerous to use.	☐	☐	☐	☐	☐
4- An Internet booking website might not perform well and may create problems with my credit.	☐	☐	☐	☐	☐
5- Using an Internet booking website subjects my current account to financial risk.	☐	☐	☐	☐	☐
6- Using an Internet booking website would add great uncertainty to my bill paying.	☐	☐	☐	☐	☐
7- The security systems built into an Internet booking website are not strong enough to protect my current account.	☐	☐	☐	☐	☐
8- Booking a hotel room over the web gives me a feeling of unwanted anxiety.	☐	☐	☐	☐	☐
9- Internet booking website servers may not perform well and may process payments incorrectly.	☐	☐	☐	☐	☐

	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
10- Booking hotel rooms over the web makes me feel psychologically uncomfortable.	☐	☐	☐	☐	☐
11- Internet hackers (criminals) might take control of my current account.	☐	☐	☐	☐	☐
12- I worry that the transaction information will be hacked or viruses caused by security lapses of operation system or online payment tools.	☐	☐	☐	☐	☐
13- I worry that if I use an Internet booking website, it would be difficult to communicate with the hotel-booking platform when I need help.	☐	☐	☐	☐	☐
14- Although it is risky, I am still willing to book a room and pay a bill online.	☐	☐	☐	☐	☐
15- I worry that my account information will be used illegally.	☐	☐	☐	☐	☐

Please indicate the degree of your agreement with each of the following statements: *

	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
1- I would like to encourage my friends to use an Internet booking website.	☐	☐	☐	☐	☐
2- I worry that if I use an Internet booking website, it would be difficult to communicate with the bank or third party platform when I need help.	☐	☐	☐	☐	☐

	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
3- Booking hotel rooms over the web causes me to experience unnecessary tension.	☐	☐	☐	☐	☐
4- I feel comfortable when use an Internet booking website.	☐	☐	☐	☐	☐
5- I find an Internet booking websites useful in planning my trip.	☐	☐	☐	☐	☐
6- I worry that the payment platform may not work properly.	☐	☐	☐	☐	☐
7- Using an Internet booking website helps me accomplish the reservation more quickly.	☐	☐	☐	☐	☐
8- My interaction with an Internet booking website should be clear and understandable.	☐	☐	☐	☐	☐
9- People who are important to me think that I should use an Internet booking website.	☐	☐	☐	☐	☐
10- I have the resources necessary to use an Internet booking website.	☐	☐	☐	☐	☐
11- I have the knowledge necessary to use an Internet booking website.	☐	☐	☐	☐	☐
12- It would be easy for me to become skilful at using an Internet booking website.	☐	☐	☐	☐	☐
13- People who influence my behaviour think that I should use an Internet booking website.	☐	☐	☐	☐	☐
14- The Internet booking website is not compatible with other systems I use.	☐	☐	☐	☐	☐

	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
15- I would find the Internet booking website easy to use.	☐	☐	☐	☐	☐

Please indicate the degree of your agreement with each of the following statements: *

	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
1- People whose opinions I value prefer that I use an Internet booking website.	☐	☐	☐	☐	☐
2- A specific person (or group) is available for assistance with system difficulties.	☐	☐	☐	☐	☐
3- Learning to use an Internet booking website is easy for me.	☐	☐	☐	☐	☐
4- Using an Internet booking website increases my productivity.	☐	☐	☐	☐	☐
5- Using an Internet booking website is fun.	☐	☐	☐	☐	☐
6- The use of an Internet booking website has become a habit for me.	☐	☐	☐	☐	☐
7- I can save money by comparing the prices on different Internet booking websites.	☐	☐	☐	☐	☐
8- I intend to continue using an Internet booking website in the future.	☐	☐	☐	☐	☐
9- Using an Internet booking website is enjoyable.	☐	☐	☐	☐	☐

	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
10- I am addicted to using Internet booking websites.	☐	☐	☐	☐	☐
11- I like to search for cheap room deals in different hotel company e-commerce websites.	☐	☐	☐	☐	☐
12- I will always try to use an Internet booking website when booking a room.	☐	☐	☐	☐	☐
13- Using an Internet booking website system is very entertaining.	☐	☐	☐	☐	☐
14- I must use an Internet booking website.	☐	☐	☐	☐	☐
15- The Internet booking website offers better value for money.	☐	☐	☐	☐	☐
16- I plan to continue to use an Internet booking website frequently.	☐	☐	☐	☐	☐
17- Using an Internet booking website has become natural to me.	☐	☐	☐	☐	☐

Please indicate the degree of probability of each statement, by selecting one of the seven alternatives *

	Very improbable	Improbable	Neutral	Probable	Very probable
1- My signing up for and using an Internet booking website would lead to a social loss for me.	☐	☐	☐	☐	☐
2- The IDS-Hotel system will not work properly.	☐	☐	☐	☐	☐

	Very improbable	Improbable	Neutral	Probable	Very probable
3- If I have to use an Internet booking website, I will lose time due to having to switch to a different payment method.	☐	☐	☐	☐	☐
4- Using an Internet booking website will cause me to lose control over the privacy of my payment information.	☐	☐	☐	☐	☐
5- My friends and relatives would think less highly of me if I use an Internet booking website.	☐	☐	☐	☐	☐
6- The Internet booking website would expose me to overall risk.	☐	☐	☐	☐	☐
7- My signing up for and using an Internet booking website would lead to a financial loss for me.	☐	☐	☐	☐	☐
8- My signing up for and using an Internet booking website would lead to a loss of privacy for me because my personal information would be used without my knowledge.	☐	☐	☐	☐	☐
9- My signing up for and using an Internet booking website would lead to a loss of convenience to me because I would have to waste a lot of time fixing payments errors.	☐	☐	☐	☐	☐
10- I stand to lose money if I use an Internet booking website.	☐	☐	☐	☐	☐

Please indicate the degree of risk for each question, by selecting one of the seven alternatives *

	Not risky at all	Not Risky	Neutral	Risky	Very Risky
1- Overall, considering all sorts of factors combined, about how risky would you say it would be to sign up for and use an IDS Hotel system?	☐	☐	☐	☐	☐
2- Considering the investment of time involved in switching to (and setting up) an IDS-Hotel system, how risky would it be?	☐	☐	☐	☐	☐
3- Considering the expected level of service performance of the IDS-Hotel system, how risky would it be for you to sign up for and use it?	☐	☐	☐	☐	☐
4- What are the chances that using the IDS-Hotel will negatively affect the way others think of you?	☐	☐	☐	☐	☐
5- How risky would the possible time loss be from having to set-up and learn how to use IDS Hotel system?	☐	☐	☐	☐	☐

Gender *

- [ ] Male
- [ ] Female

Age *

- [ ] 18
- [ ] 19
- [ ] 20
- [ ] 21
- [ ] 22
- [ ] 23
- [ ] 24
- [ ] 25
- [ ] 26
- [ ] 27
- [ ] 28
- [ ] 29
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- [ ] 56
- [ ] 60
- [ ] 61
- [ ] 62
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- [ ] 64
- [ ] 65
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- [ ] 67
- [ ] 68
- [ ] 69
- [ ] 70
- [ ] 71
- [ ] 72
- [ ] 73

- [ ] 74
- [ ] 75
- [ ] 76
- [ ] 77
- [ ] 78
- [ ] 79
- [ ] 80

Education *

- [ ] High School or less
- [ ] Diploma
- [ ] Bachelor
- [ ] Master
- [ ] Doctorate

Professional or Employment Status *

- [ ] Unemployed
- [ ] Employed

Income per month *

- [ ] 5000 SR or less
- [ ] 5000 - 10,000 SR
- [ ] 10,000 - 15,000 SR
- [ ] 15,000 - 25,000 SR
- [ ] 25,000 - 45,000 SR
- [ ] Over 45.000 SR

10. Thank you for taking the time to answer this survey.

Please select your preference of charity origination you want to donate to.

- [ ] جمعية البر الخيرية
- [ ] الجمعية الخيرية النسائية

☐ الحملة الشعبية لإغاثة الشعب السوري

Do you want your name to be printed on the charity coupon and sent to your email?

☐ Yes

☐ No

Please write your name and email address.

Name

Email

Appendix V

المخاطر المتصورة عند استخدام التقنية: استخدام الإنترنت لحجوزات الفنادق

1. يعتبر هذا الاستبيان جزءً من منهج بحث رسالة دكتوراه بعنوان "المخاطر المتصورة في اعتماد التكنولوجيا: سياق استخدام أنظمة توزيع الإنترنت - حجوزات الفنادق". الرجاء قراءة واتباع التعليمات الخاصة بكل قسم بعناية. بوضع علامة (√) في المربع أدناه أنت تعلم أنَّ:1. استبيانك سوف يكون مشفر وبدون التطرق الى معلوماتك الشخصية.2. المعلومات التي ستقدمها لن يتم الكشف عنها بشكل من شأنه أن يكشف عن هويتك لطرف خارجي.3. سيتم استخدام المعلومات لأغراض البحث وقد يتم نشرها في المجلات العلمية والأكاديمية (بما في ذلك المنشورات على الإنترنت).4. لن يتم الإفراج عن النتائج الفردية لأي شخص إلا بناء على طلبك وبتفويض خاص منك.5. الرجاء ملاحظة بأنك حر في سحب الموافقة في أي وقت أثناء الدراسة في هذه الحالة مشاركتك في الدراسة البحثية سوف تتوقف فوراً وأنه لن يتم استخدام أي معلومات تم الحصول عليها منك. تفاصيل الاتصال بالباحث: عبد الله العمران -بريد إليكتروني: a.m.alomran@2013.hull.ac.uk . تفاصيل الاتصال إلى السكرتير إلى محاور لجنة أخلاقيات البحوث الخاصة بجامعة هول – كلية الأعمال (HUBS إدارة الأعمال) هي إيمي كبولينغ - جامعة هول كلية

) - جامعة هول - طريق كوتين غام – هول - بريد اليكتروني: HUBSإدارة الأعمال (a.cowling@hull.ac.uk* +44-1482-46410:هاتف

☐ أوافق على المشاركة

2. المعلومات الديموغرافية

2. الجنسية *

☐ السعودية

☐ الكويت

☐ الإمارات

☐ قطر

☐ بحرين

☐ عمان

☐ مصر

☐ الاردن

☐ سوريا

- [ ] منطقة المدينة المنورة
- [ ] منطقة الباحة
- [ ] منطقة تبوك
- [ ] منطقة الجوف
- [ ] منطقة جازان
- [ ] منطقة حائل
- [ ] منطقة الحدود الشمالية
- [ ] المنطقة الشرقية
- [ ] منطقة القصيم
- [ ] منطقة نجران
- [ ] منطقة عسير

4. كم من الوقت تقضيه على الإنترنت خلال النهار *

- [ ] طوال اليوم
- [ ] أقل من 18 ساعة

- [ ] المملكة المتحدة
- [ ] العراق
- [ ] الهند
- [ ] باكستان
- [ ] افغانستان
- [ ] بنجلادش
- [ ] اندونيسيا
- [ ] الجزائر
- [ ] الولايات المتحدة الأمريكية

3. مكان الاقامة *

- [ ] خارج المملكة لغرض الدراسة
- [ ] خارج المملكة لغرض التجارة
- [ ] منطقة الرياض
- [ ] منطقة مكة المكرمة

أقل من 12 ساعة

أقل من 6 ساعات

أقل من 3 ساعات

أقل من 1 ساعة

5. يرجى تقييم مهارات الكمبيوتر الخاص بك *

ممتاز

جيد جداً

جيد

مقبول

6. هل قمت بحجز مكان للإقامة خلال الأشهر ال 12 الماضية؟ * *

نعم

لا

7. هل سبق و حجزت مكان للإقامة عن طريق الانترنت؟ *

نعم

لا

8. كم مرة بالسنة تقوم بحجز مكان للإقامة من خلال الإنترنت؟ *

مرات في السنة 0-2

مرات في السنة 3-6

مرات في السنة 6-9

أكثر من 10 مرات في السنة

9. ما هو الموقع الذي تستخدمه اغلب الاحيان لحجز مكان إقامتك *

Booking.com

Hotel.com

Agoda.com

- [ ] Expidia.com
- [ ] Orbitiz.com
- [ ] Travelocity.com
- [ ] CheapTicket.com
- [ ] Priceline.com
- [ ] Hotwire.com
- [ ] أخرى (يرجى التحديد):

10. يرجى الإشارة إلى السبب الرئيسي لعدم إجراء حجز للإقامة عبر الإنترنت خلال الفترة *

- [ ] أنا أفضل طريقة حجز التقليدي من خلال الهاتف، أو الذهاب، أو وكالة السفر.
- [ ] أنا لا أعرف كيفية استخدام الحجز على موقع فندق.
- [ ] تم نصحي بعدم استخدام الموقع.

- [ ] أنا قلق حول المخاطر التي تنطوي عليها معاملة الموقع.
- [ ] لم اسكن في فندق من قبل
- [ ] لا املك بطاقة أتماني
- [ ] أخرى (يرجى التحديد):

11. يرجى الإشارة إلى أي مدى توافق مع العبارات التالية بخصوص انطباعك عن موقع حجز الاقامة

	لا أوافق بشدة	لا أوافق	لا اميل الى الطرفين	أوافق	أوافق بشدة
يعرض استخدام موقع حجز الاقامة حسابي الجاري لغش محتمل	☐	☐	☐	☐	☐
هناك خطورة في استخدام موقع حجز الاقامة	☐	☐	☐	☐	☐
قد لا يعمل موقع حجز الاقامة بشكل جيد ويخلق مشاكل لرصيدي	☐	☐	☐	☐	☐
يعرض استخدام موقع حجز الاقامة حسابك الجاري لمخاطر مالية	☐	☐	☐	☐	☐
استخدام موقع حجز الاقامة يضيف قدر كبير من المخاوف المجهولة عند سداد فاتورتي	☐	☐	☐	☐	☐
الأنظمة الأمنية المدمجة في موقع حجز الاقامة ليست بالقوة الكافية لحماية حسابي الجاري	☐	☐	☐	☐	☐
أعتقد أن حجز غرفة للإقامة من خلال شبكة الإنترنت يشعرني بقلق غير مرغوب فيه	☐	☐	☐	☐	☐
قد لا تعمل خوادم موقع حجز الاقامة بشكل صحيح وتقوم بعمليات دفع غير صحيحة	☐	☐	☐	☐	☐
أعتقد أن حجز غرفة للإقامة من خلال شبكة الإنترنت يشعرني بعدم الارتياح النفسي	☐	☐	☐	☐	☐
قد يسيطر قراصنة الإنترنت (المجرمون) على حسابي الجاري	☐	☐	☐	☐	☐
أخشى ان معلومات المعاملة سيتم اختراقها أو اصابتها بفيروسات تسببها الثغرات الأمنية في نظام التشغيل أو أدوات الدفع عبر الإنترنت	☐	☐	☐	☐	☐
أخشى بعد استخدام موقع حجز الاقامة، يكون من الصعب التواصل مع منصة حجز الفندق عندما أحتاج مساعدة	☐	☐	☐	☐	☐

	لا أوافق بشدة	لا أوافق	لا اميل الى الطرفين	أوافق	أوافق بشدة
على الرغم من أن الأمر محفوف بالمخاطر، إلا أني ما زلت على استعداد لحجز غرفة ودفع فاتورة عبر الإنترنت	☐	☐	☐	☐	☐
أخشى استخدام معلومات حسابي بصورة غير قانونية	☐	☐	☐	☐	☐

12. يرجى الإشارة إلى أي مدى توافق مع العبارات التالية بخصوص انطباعك عن موقع حجز الاقامة

	لا أوافق بشدة	لا أوافق	لأ اميل الى الطرفين	أوافق	أوافق بشدة
.أود تشجيع أصدقائي لاستخدام الموقع الالكتروني لحجز الاقامة عن طريق الانترنت	☐	☐	☐	☐	☐
أخشى بعد استخدام موقع حجز الاقامة، انه قد يكون من الصعب التواصل مع البنك أو موقع الدفع او أي طرف ثالث عندما أحتاج مساعدة.	☐	☐	☐	☐	☐
.حجز غرفة للإقامة من خلال شبكة الإنترنت يشعرني بتوتر انا في غنى عنه	☐	☐	☐	☐	☐
.أشعر بالراحة عند استخدام موقع حجز الاقامة	☐	☐	☐	☐	☐
.أجد موقع حجز الاقامة مفيداً في تخطيط رحلتي	☐	☐	☐	☐	☐
.أخشى ألا تعمل منصة الدفع بشكل صحيح	☐	☐	☐	☐	☐
يساعدني استخدام موقع حجز الاقامة على إجراء الحجز بسرعة أكبر	☐	☐	☐	☐	☐
.يجب أن يكون تفاعلي مع موقع حجز الاقامة واضحاً ومفهوماً	☐	☐	☐	☐	☐
يعتقد الأشخاص المهمين لي أنه من الافضل لي استخدام موقع حجز الاقامة	☐	☐	☐	☐	☐
لدي التجهيزات للازمة لاستخدام موقع حجز الاقامة	☐	☐	☐	☐	☐
ارجو اختيار "وافق بشدة" لهذه الفقرة فقط	☐	☐	☐	☐	☐

	لا أوافق بشدة	لا أوافق	لأ اميل الى الطرفين	أوافق	أوافق بشدة
لدي المعرفة اللازمة لاستخدام موقع حجز الاقامة	☐	☐	☐	☐	☐
من السهل عليّ أن أصبح ماهراً عند استخدام موقع حجز الاقامة	☐	☐	☐	☐	☐
يعتقد الأشخاص الذين لهم تأثير على سلوكي أنه ينبغي عليّ استخدام موقع حجز الاقامة	☐	☐	☐	☐	☐
.موقع حجز الاقامة غير متوافق مع الأنظمة الأخرى التي أستخدمها	☐	☐	☐	☐	☐
اعتقد ان موقع حجز الاقامة سهلاً في الاستخدام	☐	☐	☐	☐	☐

13. يرجى الإشارة إلى أي مدى توافق مع العبارات التالية بخصوص انطباعك عن موقع حجز الاقامة

	لا أوافق بشدة	لا أوافق	لا اميل الى الطرفين	أوافق	أوافق بشدة
.يفضل الأشخاص الذين أثق برأيهم أن أستخدم الموقع الالكتروني لحجز الاقامة عن طريق الانترنت	☐	☐	☐	☐	☐
.يتوافر شخص معين (أو مجموعة) لمساعدة الذين يعانون من صعوبات في استخدام الموقع	☐	☐	☐	☐	☐
تعلم استخدام موقع حجز الاقامة سهلاً بالنسبة لي	☐	☐	☐	☐	☐
.استخدامي لموقع حجز الاقامة يزيد من إنتاجيتي	☐	☐	☐	☐	☐
استخدام موقع حجز الاقامة مُسلي	☐	☐	☐	☐	☐
.أصبح استخدام موقع حجز الاقامة عادة بالنسبة لي	☐	☐	☐	☐	☐
.أستطيع توفير المال من خلال دراسة أسعار مواقع حجز الاقامة المختلفة	☐	☐	☐	☐	☐
.أنوي الاستمرار في استخدام موقع حجز الاقامة في المستقبل	☐	☐	☐	☐	☐
استخدام موقع حجز الاقامة ممتع	☐	☐	☐	☐	☐
لقد أدمنت استخدام موقع حجز الاقامة	☐	☐	☐	☐	☐
.أود البحث عن صفقات الغرف الرخيصة في مختلف مواقع التجارة الإلكترونية لشركات الاقامة	☐	☐	☐	☐	☐
.سوف أحاول دائما استخدام موقع حجز الاقامة عند حجز غرفة	☐	☐	☐	☐	☐

	لا أوافق بشدة	لا أوافق	لا اميل الى الطرفين	أوافق	أوافق بشدة
.إن استخدام موقع حجز الاقامة مسلٍ جداً	☐	☐	☐	☐	☐
.يتعين على استخدام موقع حجز الاقامة	☐	☐	☐	☐	☐
.تقدم مواقع التجارة الإلكترونية لشركة موقع حجز الاقامة قيمة أفضل مقابل مالي	☐	☐	☐	☐	☐
.أخطط لمواصلة استخدام موقع حجز الاقامة كثيراً	☐	☐	☐	☐	☐

14. ما هي احتمالية حدوث ما يلي عند استخدامك موقع حجز الاقامة

	غير محتمل جداً	غير محتمل	لا اميل الى الطرفين	محتمل	محتمل جداً
.قد يؤدي تسجيلي واستخدامي ل موقع حجز الاقامة إلى خسائر اجتماعية لي	☐	☐	☐	☐	☐
عدم أداء موقع حجز الاقامة بشكل صحيح	☐	☐	☐	☐	☐
احتمالية خسارتك للوقت بسبب الحاجة إلى تعلم طريقة دفع اخرى غير تقليدية (استخدام بطاقتك الائتماني)	☐	☐	☐	☐	☐
فقدان السيطرة على خصوصية معلومات الدفع الخاصة بك	☐	☐	☐	☐	☐
.سوف يقلل أصدقائي وأقاربي من شأني في حال استخدامي ل موقع حجز الاقامة	☐	☐	☐	☐	☐
.يعرضك موقع حجز الاقامة لمخاطر إجمالية	☐	☐	☐	☐	☐
ارجو اختيار "محتمل" لهذه الفقرة فقط	☐	☐	☐	☐	☐
.قد يؤدي تسجيلي في موقع حجز الاقامة واستخدامي له إلى خسائر مالية	☐	☐	☐	☐	☐
.قد يؤدي تسجيلي واستخدامي ل موقع حجز الاقامة إلى فقدان خصوصيتي بسبب استخدام معلوماتي الشخصية بدون معرفتي	☐	☐	☐	☐	☐
.قد يؤدي تسجيلي واستخدامي ل موقع حجز الاقامة إلى فقدان راحتي لأنني قد أضيع الكثير من الوقت لإصلاح أخطاء الدفعات	☐	☐	☐	☐	☐
احتمالية تعرضك للسرقة إذا كنت تستخدم موقع حجز الاقامة	☐	☐	☐	☐	☐

	غير محتمل جداً	غير محتمل	لا اميل الى الطرفين	محتمل	محتمل جداً
احتمالية تأثير استخدامك ل موقع حجز الاقامة على طريقة تفكير الناس سلباً بك	☐	☐	☐	☐	☐
.احتمالية خسارة الوقت من الاضطرار إلى إعداد موقع حجز الاقامة ومعرفة كيفية استخدامه	☐	☐	☐	☐	☐
هناك مخاطرة محتملة من استخدام موقع الحجز لسداد فاتورة الفندق	☐	☐	☐	☐	☐
قد يصبح استخدام موقع حجز الاقامة عادة بالنسبة لي	☐	☐	☐	☐	☐

15. يرجى الإشارة إلى مدى الشعور بالمخاطرة مع العبارات التالية بخصوص موقع حجز الاقامة

	لا توجد مخاطرة على الإطلاق	لا توجد مخاطرة	لا اميل الى الطرفين	توجد مخاطرة	توجد مخاطرة كبرى.
بوجهٍ عام، وبوضع جميع العوامل السابقة بعين الاعتبار، ما هي مدى المخاطرة المتعلقة بالتسجيل في موقع حجز الاقامة واستخدامه؟	☐	☐	☐	☐	☐
بالنظر إلى الوقت المستغرق في التسجيل والاعدادات في موقع حجز الاقامة قد يتسبب بمخاطرة في الوقت	☐	☐	☐	☐	☐
بالنظر إلى المستوى المتوقع من أداء الخدمة الخاصة بموقع حجز الاقامة، سوف تكون هناك مخاطرة عند تسجيلك واستخدامك له.	☐	☐	☐	☐	☐

16. الجنس *

- [ ] ذكر
- [ ] انثى

17. العمر *

- [ ] اقل من 18
- [ ] 19
- [ ] 20
- [ ] 21
- [ ] 22
- [ ] 23
- [ ] 24
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- [ ] 56
- [ ] 57
- [ ] 58
- [ ] 59
- [ ] 60

- [ ] ماجستير
- [ ] دكتوراه

19. الحالة الاجتماعية *

- [ ] عازب
- [ ] متزوج
- [ ] أرمل
- [ ] منفصل

20. التوظيف *

- [ ] موظف حكومي
- [ ] موظف قطاع خاص
- [ ] أعمال حره
- [ ] غير موظف

21. الدخل الشهري *

- [ ] ريال سعودي أو أقل 4999
- [ ] رس 5000 - 9,999
- [ ] رس 10,000 – 14,999
- [ ] رس 15000 - 24,999
- [ ] رس 25,000 - 44,999
- [ ] أكثر من 45,000 رس

15. الجمعيات الخيرية

- [ ] 61
- [ ] 62
- [ ] 63
- [ ] 64
- [ ] 65
- [ ] 66
- [ ] 67
- [ ] 68
- [ ] 69
- [ ] 70
- [ ] 71
- [ ] 72
- [ ] 73
- [ ] 74
- [ ] 75
- [ ] 76
- [ ] 78
- [ ] 79
- [ ] 80+

18. التعليم *

- [ ] مدرسة ثانوية أو أقل
- [ ] دبلوم
- [ ] بكالوريوس

22. ارجو اختيار أحد الجمعيات الخيرية الرسمية التي ترغب المساهمة فيها *

- [ ] جمعية البر الخيرية
- [ ] الجمعية الخيرية النسائية
- [ ] الجمعية الخيرية لتيسير الزواج
- [ ] الحملة الشعبية لإغاثة الشعب السوري

23. هل ترغب بتسجيل اسمك على قسيمة المساهمة الخيرية وارسالها الى بريدك الإلكتروني *

- [ ] نعم
- [ ] (فاعل خير)

24. ارجو كتابة الاسم والبريد الإلكتروني

الاسم

البريد الالكتروني

Appendix VI

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
EE -> BI	0.034	0.035	0.012	2.868	0.004
EE -> PE	0.003	0.004	0.010	0.320	0.749
EE -> TR	0.004	0.004	0.011	0.324	0.746
FR -> BI	-0.049	-0.049	0.012	4.061	0.000
FR -> PE	-0.168	-0.169	0.026	6.387	0.000
FR -> TR	-0.200	-0.200	0.027	7.474	0.000
PE -> BI	0.106	0.105	0.023	4.568	0.000
PR -> BI	-0.117	-0.117	0.026	4.540	0.000
PR -> TR	-0.173	-0.172	0.025	6.827	0.000
PRY -> BI	-0.029	-0.029	0.007	3.889	0.000
PRY -> PE	-0.098	-0.098	0.017	5.933	0.000
PRY -> TR	-0.117	-0.116	0.018	6.508	0.000
SI -> BI	0.021	0.022	0.011	1.877	0.061
SOR -> BI	-0.004	-0.004	0.004	1.194	0.233
SOR -> PE	-0.015	-0.015	0.012	1.239	0.215
SOR -> TR	-0.017	-0.018	0.014	1.257	0.209
SR -> BI	-0.004	-0.004	0.005	0.904	0.366
SR -> PE	-0.015	-0.015	0.016	0.947	0.344
SR -> TR	-0.018	-0.017	0.019	0.953	0.341
SYC -> BI	-0.014	-0.014	0.006	2.264	0.024
SYC -> PE	-0.050	-0.049	0.020	2.530	0.011
SYC -> TR	-0.059	-0.058	0.023	2.568	0.010
TM -> BI	-0.023	-0.023	0.007	3.536	0.000
TM -> PE	-0.080	-0.080	0.017	4.582	0.000
TM -> TR	-0.095	-0.095	0.019	5.008	0.000

Appendix VII

Non-parametric Levene's test - Gender

Test of Homogeneity of Variances

Ind_diff

Levene Statistic	df1	df2	Sig.
3.584	1	397	.059

ANOVA

Ind_diff

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.098	1	.098	.000	.995
Within Groups	1186286.807	397	2988.128		
Total	1186286.905	398			

Non-parametric Levene's test - Age

Test of Homogeneity of Variances

Ind_diff

Levene Statistic	df1	df2	Sig.
.580	4	394	.677

ANOVA

Ind_diff

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	19551.459	4	4887.865	1.651	.161
Within Groups	1166735.445	394	2961.257		
Total	1186286.905	398			

Non-parametric Levene's test - Internet experience

Test of Homogeneity of Variances

Ind_diff

Levene Statistic	df1	df2	Sig.
.263	3	395	.852

ANOVA

Ind_diff

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	11830.593	3	3943.531	1.326	.265
Within Groups	1174456.311	395	2973.307		
Total	1186286.905	398			

Non-parametric Levene's test - Education

Test of Homogeneity of Variances

Ind_diff

Levene Statistic	df1	df2	Sig.
2.652	4	394	.033

ANOVA

Ind_diff

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	29013.268	4	7253.317	2.469	.044
Within Groups	1157273.637	394	2937.243		
Total	1186286.905	398			

Levene's Test of Equality of Error Variances[a]

Dependent Variable: BI

F	df1	df2	Sig.
1.783	1	397	0.183

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Gender

Levene's Test of Equality of Error Variances[a]

Dependent Variable: BI

F	df1	df2	Sig.
4.481	4	394	.001

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Age

Levene's Test of Equality of Error Variances[a]

Dependent Variable: BI

F	df1	df2	Sig.
.933	3	395	.425

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + ComputerSkills

Appendix VIII

Scale Development: Performance Expectancy

Antecedent Construct	**Reference**	**Items No.**	**Revised items /Justification of added, dropped or amended items**
Performance Expectancy	(Venkatesh et al., 2003)	4	• PE1: I find hotel e-booking services useful in planning my trip. • PE2: Using hotel e-booking services helps me accomplish reservations more quickly. • PE3: Using hotel e-booking services increases my productivity. • Adding hotel e-booking services to the original items was necessary to fit the current context of study. No change was made to the scale of measurement.
Perceived Usefulness	(Davis et al., 1989; Davis, 1989)	14	
Extrinsic Motivation	(Davis et al., 1992)	4	
Job-fit	(Thompson et al., 1991)	6	
Relative Advantage	(Moore & Benbasat, 1991)	5	
Outcome Expectations	(Compeau et al., 1999; Compeau & Higgins, 1995)	5	

Ref.	**Performance Expectancy**	**Ref.**	**Perceived Usefulness**

(Venkatesh et al., 2003)	• I would find the system useful in my job. • Using the system enables me to accomplish tasks more quickly. • Using the system increases my productivity. • If I use the system, I will increase my chances of getting a raise.	(Davis, 1989)	• My job would be difficult to perform without electronic mail. • Using electronic mail gives me greater control over my work. • Using electronic mail improves my job performance. • The electronic mail system addresses my job-related needs. • Using electronic mail saves me time. • Electronic mail enables me to accomplish tasks more quickly.		• Electronic mail supports critical aspects of my job. • Using electronic mail allows me to accomplish more work than would otherwise be possible. • Using electronic mail reduces the time I spend on unproductive activities. • Using electronic mail enhances my effectiveness on the job. • Using electronic mail improves the quality of the work I do. • Using electronic mail increases my productivity. • Using electronic mail makes it easier to do my job. • Overall, I find the electronic mail system useful in my job.
Ref.	**Perceived Usefulness**	**Ref.**	**Extrinsic Motivation**	**Ref.**	**Job-fit**

(Fred D. Davis et al., 1989)	• I would save time in creating and editing documents. • My documents would be of a better quality. • I would become dependent on WriteOne.	(Fred D. Davis et al., 1992)	• Using WriteOne would improve my performance in the MBA (the Master of Business Administration) programme. • Using WriteOne in the MBA programme would increase my productivity. • Using WriteOne would enhance my effectiveness in the MBA programme. • I would find WriteOne useful in the MBA programme.	(B. R. L. Thompson et al., 1991)	• Use of a PC will have no effect on the performance of my job (reverse scored). • Use of a PC can decrease the time needed for my important job responsibilities. • Use of a PC can significantly increase the quality of output of my job. • Use of a PC can increase the effectiveness of performing job tasks (e.g. analysis). • A PC can increase the quantity of output for the same amount of effort. • Considering all tasks, the general extent to which use of a PC could assist on the job.
Ref.	**Relative Advantage**			**Ref.**	**Outcome Expectations**
(Moore and Benbasat, 1991)	• Using a PWS (Personal Work Station) enables me to accomplish tasks more quickly. • Using a PWS improves the quality of work I do. • Using a PWS makes it easier to do my job. • The disadvantages of my using a PWS far outweigh the advantages.		• Overall, I find using a PWS to be advantageous in my job. • Using a PWS enhances my effectiveness on the job. • Using PWS gives me greater control over my work. • Using PWS increases my productivity.	(Compeau and Higgins, 1995)	• Using a computer would increase my productivity. • Using a computer would decrease reliance on clerical support. • Using a computer would enhance the quality of my work output. • Using a computer would enhance my feeling of accomplishment. • Using computer would enhance my status.

	• Using a PWS improves my job performance.		

Root constructs and Scales (Source: Venkatesh et al., 2003)

Scale development: Effort Expectancy

<table>
<tr><th colspan="2">Antecedent Construct</th><th>Reference</th><th>Items No.</th><th>Revised items /Justification of added, dropped or amended</th></tr>
<tr><td colspan="2">Effort Expectancy</td><td>(Venkatesh et al., 2003)</td><td>4</td><td rowspan="4">• EE1: My interaction with the hotel e-booking service would be clear and understandable.
• EE2: It would be easy for me to become skilful at using hotel e-booking services.
• EE3: I would find the system easy to use.
• EE4: Learning to use hotel e-booking services is easy for me.

Adding hotel e-booking services to the original items was necessary to fit the current context of study. No change was made to the scale of measurement.</td></tr>
<tr><td colspan="2">Perceived Ease of Use</td><td>(Davis et al., 1989; Davis, 1989)</td><td>6</td></tr>
<tr><td colspan="2">Complexity</td><td>(Thompson et al., 1991)</td><td>4</td></tr>
<tr><td colspan="2">Ease of Use</td><td>(Moore & Benbasat, 1991)</td><td>4</td></tr>
<tr><th>Ref.</th><th>Effort Expectancy</th><th>Ref.</th><th colspan="2">Perceived Ease of Use</th></tr>
<tr><td>(Venkatesh et al., 2003)</td><td>• My interaction with the system would be clear and understandable.
• It would be easy for me to become skilful at using the system.
• I would find the system easy to use.
• Learning to operate the system is easy for me.</td><td>(Davis et al., 1989; Davis, 1989)</td><td colspan="2">• Learning to operate the system would be easy for me.
• I would find it easy to get the system to do what I want it to do.
• My interaction with the system would be clear and understandable.
• I would find the system to be flexible to interact with.
• It would be easy for me to become skilful at using the system.
• I would find the system easy to use.</td></tr>
<tr><th>Ref.</th><th>Complexity</th><th>Ref.</th><th colspan="2">Ease of Use</th></tr>
</table>

(Thompson et al., 1991)	• Using the system takes too much time from my normal duties. • Working with the system is so complicated; it is difficult to understand what is going on. • Using the system involves too much time doing mechanical operations (e.g. data input). • It takes too long to learn how to use the system to make it worth the effort.	(Moore and Benbasat, 1991)	• My interaction with the system is clear and understandable. • I believe that it is easy to get the system to do what I want it to do. • Overall, I believe that the system is easy to use. • Learning to operate the system is easy for me.

Root constructs and Scales (Source: Venkatesh et al., 2003)

Scale Development: Facilitating Conditions

Antecedent Construct	**Reference**	**Items No.**	**Revised items /Justification of added, dropped or amended**
Facilitating Conditions	(Venkatesh et al., 2003)	4	• FC1: I have the resources necessary to use the hotel e-booking service. • FC2: I have the knowledge necessary to use the hotel e-booking service. • FC3: The hotel e-booking service is not compatible with other systems I use. • FC4: A specific person (or group) is available for assistance with system difficulties.
Perceived Behavioural Control	(Ajzen, 1991; Taylor & Todd, 1995b; Taylor & Todd, 1995a)	5	
Facilitating Conditions	(Thompson et al., 1991)	3	
Compatibility	(Moore & Benbasat, 1991)	3	

				*The addition of hotel bookings website to the original items was necessary to fit the current context of study. No change was made to the scale of measurement.
Ref.	**Facilitating Conditions**	**Ref.**		**Perceived Behavioural Control**
(Venkatesh et al., 2003)	• I have the resources necessary to use mobile Internet. • I have the knowledge necessary to use mobile Internet. Mobile Internet is compatible with other technologies. • I can get help from others when I have difficulties using mobile Internet.	(Ajzen, 1991; Taylor & Todd, 1995b; Taylor & Todd, 1995a)	• I have control over using the system. • I have the resources necessary to use the system. • I have the knowledge necessary to use the system. • Given the resources, opportunities and knowledge it takes to use the system, it would be easy for me to use the system. • The system is not compatible with other systems I use.	
Ref.	**Facilitating Conditions**	**Ref.**		**Compatibility**
(Thompson et al., 1991)	• Guidance was available to me in the selection of the system. • Specialized instruction concerning the system was available to me. • A specific person (or group) is available for assistance with system difficulties.	(Moore and Benbasat, 1991)	• Using the system is compatible with all aspects of my work. • I think that using the system fits well with the way I like to work. • Using the system fits into my work style.	

Root constructs and Scales (Source: Venkatesh et al., 2003)

Scale Development: Social Influence

Antecedent Construct	**Reference**	**Items No.**	**Revised items /Justification of added, dropped or amended**
Social Influence	(Venkatesh et al., 2003)	4	• SI1: People who are important to me think that I should use hotel e-booking services. • SI2: People who influence my behaviour think that I should use hotel e-booking services. • SI2: People whose opinions that I value prefer that I use hotel e-booking services. Adding hotel e-booking services to the original items was necessary to fit the current context of study. No change was made to the scale of measurement.
Subjective Norm	(Ajzen, 1991; Ajzen &Fishbein, 1975; Davis et al., 1989; Mathieson, 1991; Taylor & Todd, 1995a, 1995b)	2	
Social Factors	(Thompson et al., 1991)	4	
Image	(Moore & Benbasat, 1991)	3	

Ref.	**Social Influence**	**Ref.**	**Subjective Norms**
(Venkatesh et al., 2003)	• People who influence my behaviour think that I should use the system. • People who are important to me think that I should use the system. • The senior management of this business has been helpful in the	(Ajzen, 1991;Ajzen & Fishbein, 1975; Davis et al., 1989; Mathieson, 1991; Taylor & Todd, 1995a, 1995b)	• People who influence my behaviour think that I should use the system. • People who are important to me think that I should use the system.

	use of the system. • In general, the organisation has supported the use of the system.		
Ref.	**Social Factors**	**Ref.**	**Image**
(Thompson et al., 1991)	• I use the system because of the proportion of co-workers who use the system. • The senior management of this business has been helpful in the use of the system. • My supervisor is very supportive of the use of the system for my job. • In general, the organization has supported the use of the system.	(Moore & Benbasat, 1991)	• People in my organization who use the system have more prestige than those who do not. • People in my organization who use the system have a high profile. • Having the system is a status symbol in my organization.

Root constructs and Scales (Source: Venkatesh et al., 2003)

Appendix VIII

Table: UTAUT Application in e-business Studies (Independent/ Dependent Variables)

Author, Year	Purpose	Context	Sample	Key Finding	Independent variables	Dependent variables
Al Qeisi et al. (2014)	Firms gain many benefits from well-designed websites. However, which elements of website design quality really matter, and how do these elements influence usage behaviour?	E-Banking	216	The general content and appearance dimensions of a website are most important to users. These dimensions are significantly related to usage behaviour directly and indirectly. A halo effect may influence overall evaluation of website because the dimensions of website design quality are interrelated.	- Web Design Quality - Social Influence - Effort Expectancy - Experience	- Internet Banking Usage - Performance Expectancy - Web Quality
AbuShanab and Pearson (2007)	What are the key determinants of the adoption of Internet banking in Jordan?	E- Banking	878	Performance expectancy, effort expectancy, and social influence were significant and explained a significant amount of the variance in predicting a customer's intention to adopt Internet banking. Gender moderated the relationships between the three independent variables and the dependent variable (behavioural intention).	- Performance Expectancy - Effort Expectancy - Social Influence - Facilitating Condition	- Behavioural Intention - Use Behaviour

Author, Year	Purpose	Context	Sample	Key Finding	Independent variables	Dependent variables
Al-Gahtani et al. (2007)	Empirically validate a modified UTAUT model in a non-Western cultural context, specifically Saudi Arabia, and explain anomalies between these validations in terms of cultural differences that affect the organizational acceptance of IT.	Internal Organization	722	The UTAUT Model explained 39.1% of intention to use variance, and 42.1% of usage variance. The study explains similarities and differences between the North American and Saudi validations of UTAUT in terms of cultural differences that affected the organisational acceptance of IT in the two societies.	- Performance Expectancy - Effort Expectancy - Social Influence - Facilitating Condition	- Behavioural Intention - Use Behaviour
Chiu and Wang (2008)	Explore individuals' intentions to continue using Web-based learning in a voluntary setting.	E-learning	286	Performance expectancy, effort expectancy, computer self-efficacy, attainment value, utility value, and intrinsic value were significant predictors of individuals' intentions to continue using Web-based learning, while anxiety had a significant negative effect.	- Computer self-efficacy - Attainment Value - Utility Value - Intrinsic Value - Social Influence - Facilitating Conditions - Cost	- Effort Expectancy - Performance Expectancy - Continuance Intention
Escobar-Rodríguez and Carvajal-Trujillo (2014)	Examines determinants of purchasing flights from low-cost carrier (LCC) websites.	E- Travel	1096	Key determinants of purchasing are trust, habit, cost saving, ease of use, performance and expended effort, hedonic motivation and social factors. Of these variables, online purchase intentions, habit, and ease of use are the most important.	- Performance Expectancy - Effort Expectancy - Social Influence - Facilitating Conditions - Hedonic Motivation - Price Value - Habit	- Behavioural Intention - Use Behaviour
Im et al. (2011)	Examining the relationships of the constructs in the UTAUT model to determine how they are affected	E- Banking	363 from Korea and 138	The comparison of Korea and the U.S. revealed that the effects of effort expectancy on behavioural intention and the effects of	- Performance Expectancy - Effort Expectancy - Social Influence	- Behavioural Intention - Use Behaviour

Author, Year	Purpose	Context	Sample	Key Finding	Independent variables	Dependent variables
	by culture.		from the US	behavioural intention on use behaviour were greater in the U.S. sample.	- Facilitating Conditions	
Liu and Forsythe (2011)	This research intends to examine whether the early adopters of the online channel are more likely to buy a wide range of products and more frequently than the late adopters.	E-Booking	598	Factors influencing post-adoption usage differ across the two groups, suggesting that adoption timing has a moderating effect on relationships specified by the UTAUT mode.	- Performance Expectancy - Functional Usefulness - Hedonic/Enjoyment - Product risk - Facilitating Condition - Internet usage at home - Internet usage at work	- Online purchasing intensity
San Martín et al. (2012)	This study explores the process of adoption of new information technologies by the users of rural tourism services and, more concretely, the underlying psychological factors of individuals that explain their intentions to make bookings or reservations directly through the websites of the rural accommodations.	E-Travel	1083	The online purchase intention is positively influenced by the levels of performance and effort expected about the transaction, and the level of innovativeness of users. In addition, the innovativeness construct has a moderating effect on the relationship between performance expectancy and online purchase intention.	- Innovativeness in Information Technology - Performance Expectancy - Effort Expectancy - Social Influence - Facilitating Conditions	- Online Purchase Intention

Author, Year	Purpose	Context	Sample	Key Finding	Independent variables	Dependent variables
(Gupta et al., 2018)	This study aims to identify factors affecting tourists' intention of using travel apps installed in their smartphones.	E-Travel	389	Significant predictors of smartphone app usage intention included performance expectancy, social influence, price saving, perceived risk, perceived trust and prior usage habits. Usage behaviour was largely mediated by usage intention, except in the case of habits. Contrary to the expectation, factors such as hedonistic motivation, facilitating conditions or effort expectancy did not impact usage intention or behaviour.	- Performance Expectancy - Effort Expectancy - Social Influence - Facilitating Conditions - Hedonic Motivation - Price Saving - Habit - Perceived Risk - Perceived Trust	- Behavioural Intention - Use Behaviour
(Blaise et al., 2018)	Seeking to fill a gap in current research on the conditions that would facilitate user acceptance of m-commerce	M-Commerce	165	Performance and effort expectancies, social influence, as well as the facilitating conditions of trust in the use of m-commerce, were found to significantly predict m-commerce purchase intentions. The findings also provided further clarification of the facilitating conditions of m-commerce purchases suggesting that implicit motivations and approach-oriented goals might be significantly associated with m-commerce purchase intentions	- Performance Expectancy - Effort Expectancy - Social Influence - Trust	- Purchase Intention

Author, Year	Purpose	Context	Sample	Key Finding	Independent variables	Dependent variables
(Fong et al., 2017)	This study unveils the cognitive mechanism that locus of control (LOC) dimensions (internal control, chance control, and control by powerful others) predict intention to reuse mobile apps for making hotel reservations	Mobile App Hotel Reservations	457	Results show direct positive predictions of intention to reuse from UTAUT anchors including performance expectancy, effort expectancy, social influence, and facilitating conditions. Perceived risk also negatively predicts intention. Effort expectancy mediates the links between internal/chance control and intention, whereas perceived risk mediates only the latter link. Facilitating conditions mediate the relationship between control by powerful others and intention	- Performance Expectancy - Effort Expectancy - Social Influence - Facilitating Conditions - Perceived Risk - Internal Control - Chance Control - Control by Powerful Others	- Intention to reuse
(Chang et al., 2016)	To show how virtual community building, website performance expectancy, effort expectancy, trialability, and two mediators (familiarity and perceived risk) interact and affect online shopping intention	E-Retailers	430	The results show that performance expectancy and effort expectancy positively affect website familiarity; virtual community building and trialability positively influence product familiarity; and perceived risk negatively affects purchase intention. In addition to the effects demonstrated by the regression results, website familiarity and product familiarity also have mediation effects	- Virtual Community Building - Performance Expectancy - Effort Expectancy - Trialability	- Product Familiarity - Website Familiarity - Perceived Risk - Purchase Intention
(Nysveen & Pedersen, 2016)	This article, an extended version of the unified theory of acceptance and use of technology (UTAUT) is applied to explore the significance of various antecedents of	RFID-Enabled services	560	The results show significant influences from performance expectancy, effort expectancy and technology anxiety on attitude to use RFID-enabled services, while facilitating conditions and attitude	- Performance Expectancy - Effort Expectancy - Social Influence - Facilitating Conditions	- Attitude to Use - Intention to Use

Author, Year	Purpose	Context	Sample	Key Finding	Independent variables	Dependent variables
	acceptance of eight versions of a radio frequency identification (RFID) enabled service			to use both have significant influences on intention to use the services. Gender moderates most of the relationships in the model while age and experience with identification technology do not seem to be relevant moderators. Experience of the service is found to moderate some of the relationships.	- Technology Anxiety - Privacy Risk Harm	
(Apiraksattayakul et al., 2017)	This study presents an empirical investigation as to the key determinants of purchase intention towards clothing on Instagram.	E-Shopping through Instagram	200	The results suggest that four aspects contribute positively towards customer purchase intentions (perceived social value, perceived price value, perceived quality value and perceived benefits) while, in contrast, risk perceptions have been found to adversely impact upon customer purchase intentions. Two other aspects, perceived emotional value and electronic word of mouth, have been found to have no significant influence upon purchase intentions	- Perceived Social Value - Perceived Price Value - Perceived Quality Value - Perceived Emotional Value - Perceived Risk - Perceived Benefits - Perceived eWOM	- Purchase Intentions