Self-Service Phone Kiosk Attributes and Pilgrims Experience:

Toward an Integrated Conceptual Framework

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Abstract

The launching of a self-service phone kiosk in what is considered the most holy place for Muslims in the entire world is the main context of this thesis. Pilgrimage or visit (i.e., Hajj and Umrah in Arabic) to these holy places play a pivotal role in Islamic faith. Therefore, a huge number of pilgrims and visitors gather in this place annually, either during specific months, or for Umrah, at any time of the year. To cater for the needs of this pilgrim group in terms of services and facilities, this study sets out to understand this special market segment concerning the use of a self-service phone kiosk. Particularly, this research aims to 1) explore the motivational factors that underlie pilgrim experience and to develop a measurement scale for the construct of pilgrim experience; and 2) examine the influence of self-service phone kiosk attributes (i.e., functionality, security, accessibility, customisation and design) on pilgrim's satisfaction with their self-service phone kiosk encounter and their overall pilgrim experience, as well as the impact on the continued usage intention of this service. This study employed focus group interviews and a field survey. The focus group interviewees were from Muslim community in Auckland. The outcomes from the focus group interviews were used to develop a measurement scale for the construct of pilgrim experience and to determine the types of self-service phone kiosk attributes preferred by pilgrims and visitors. The survey data (n=274) ws collected at several phone kiosk around a holy site located in Makkah recruited Muslims pilgrims and visitors of the holy mosque. Structural equation modelling was used to assess the hypothesised relationships. The findings of this research revealed that the subjects

were generally satisfied with the self-service phone kiosk and that functionality was among the most important attribute for pilgrims in terms of satisfaction with using self service phone kiosk as well as enhancing the pilgrim experience. Also, the results of satisfaction with the usage of self-service phone kiosk showed a significant impact on the continue usage intention amongst pilgrim, which support the past research findings on this aspect. This study contributes theoretically, methodologically and practically to this field in many ways, the model developed in this thesis add a solid contributions to the marketing and tourism literature.

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List of Abbreviations

ACC	Accessibility
β	Beta
CFA	Confirmatory factor analysis
CFI	Comparative Fit Index
CR	Construct reliability
C.R.	Critical ratio
CINT	Continued usage intention
EFA	Exploratory factor analysis
FN	Functionality
GFI	Goodness-of-Fit Index
KMO	Kaiser-Meyer-Olkin test
PEXp	Pilgrim experience
R_2	Squared inter-construct correlations
RMSEA	Root Mean Square Error of Approximation
SAT	Satisfaction
SD	Standard deviation
SEC	Security
SEM	Structural equation modelling
TLI	Tucker-Lewis Index
VE	Variance extracted
X_2/df	normalised by the degrees of freedom
X_2	Chi-square test

Attestation of Authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning

Name: Safa Meshal Allhyany

Signed:

Date: 31/ 07/2019

Dedication

This thesis is dedicated to my late aunt who will be always in my heart and her guidance won't be forgotten. To my parents, I'm so glad and thankful they are in my life. To my little family; my husband and my children. To the wider community in Makkah and I'm hoping that we can reach the goal and wishes of making Makkah working by electronic self-service.

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Ethics Approval

This research was approved for three years until 25th July 2021 by Auckland University of Technology Ethics Committee (AUTEC) on 25th July 2018, Ethics application number 18/288.

Chapter 1: Introduction and Background

1.1 Background

Statistical evidence shows a growth in the number of people undertaking pilgrimage around the globe. For example, the Hajj season alone, demonstrate the number of pilgrims in 2017 was over two million, This growth in the number of pilgrims and their journey to Makkah was the motivation to investigate the pilgrimage concept and its effect on individuals and the community ("*Annual number of Hajj pilgrims*", 2018).

For many religions pilgrimage is a necessary journey to be undertaken by its followers. For example, in the Hindu faith, pilgrimage is considered an identification of what they believe and a way of differentiating Hindu followers from other religious groups in their community (Buzinde, Kalavar, Kohli & Manuel-Navarrete, 2014). One such journey in Islam, the Hajj, is a once in a lifetime pilgrimage to the holy sites in Makkah unless s/he is excused from making the pilgrimage for financial or health reasons (Henderson, 2011), which is considered to be the fifth pillar of the Islamic faith (mandatory acts to be undertaken by every Muslim) (Almuhrzi & Alsawafi, 2017). The hajj (Pilgrimage in Arabic) in particular has many meanings for Muslims worldwide. As an example, it is highly associated with brotherhood and unity among Muslims. The journey is also strongly related to believers' spiritual feelings and expression of devotion (Henderson, 2010).

Pilgrimage and tourism associated in terms of that pilgrimage is considered as a journey or a trip attract visitors or pilgrims to holy sites and religious rituals. In terms of tourism research on the concept of pilgrimage, it is been found that the tourism industry is shifting from a purely economic and marketing approach to a more experiential economic tourism system to provide the tourists with a personal and transformational experience

(Dwyer, Edwards, Mistilis, Roman & Scott, 2009). A new perspective is necessary to better understand and to have a salient adaptation to the current trends.

One such way that companies are serving large crowds, such as those at pilgrimage sites, is self-service phone kiosks. The introduction of the self-service phone kiosk is seen as an investment by companies which may help increase their consumer base by serving large numbers of people professionally. To this end, "STC", the Saudi Telecommunications company, launched self-service phone kiosks in Makkah for pilgrims and tourists, and this service is the focus of this research.

Such self-service technologies have already transformed the tourist experience this may be the same for pilgrims, as they are a type of tourist. Therefore, this research is investigating the potential positive implications of self-service phone kiosk use on the pilgrim experience and how satisfaction encounter with the self-service phone kiosk usage impact the pilgrims' experience. The behavioural outcome of satisfaction with the self-service phone kiosk and pilgrim experience may have in turn an impact on the pilgrims' intention to continue using this service.

Although past research has extensively explored the area of satisfaction with self-service technology and its impact on the intention to continue to use it, research has been limited to general customers as opposed to, special interests groups such as pilgrims. It is important to understand the use of self-service phone kiosk among pilgrims during their pilgrimage visit in order to better serve them according to their specific needs. This knowledge can help manager to increase customer numbers and generate sale revenue. The following sections highlight the research objectives and research problem, the potential contributions of this research, alongside with the research context and some defentions of the key words.

1.2 Research Problem

The pilgrim experience at the Hajj and Umrah are fundamentally important to this research as it is the motivation for this group of people to take this journey. This journey is for a limited time and is for the purpose of connecting with God and worshipping outside everyday life. Any distraction from this purpose may lead to a negative experience for the pilgrim. In terms of service provided to this segment it could be frustrating to obtain service in an usual way, in the large crowd, since this is the case in this religion gathering. In this way, the establishment of a self-service phone kiosk system may facilitate the pilgrim journey and enable it to be more about worship. This is a new service established in Makkah to serve a large crowed and so it has never been examined in terms of to what extent it would facilitate the pilgrims' journeys ("*Stats*", 2019). It is worth examining this self-service phone kiosk system and comparing it with established systems (i.e., airport check-in services, ATM banking services, and self-service scanning services in supermarkets and retailers) in terms of service adoption, satisfaction and the intention to continue use the system in future as there is no prior research into self-service technology within the pilgrim sector.

The pilgrim segment is still a neglected and unexplored area from marketing perspective and there was no existing measurement scale to assess the construct of pilgrim experience. Also, the nexus between self-service technology and pilgrim experience has never been examined thus far.

Furthermore, since the segment of this research is considered diverse in terms of ethnicity (i.e., Middel Eastern, Asian and European), linguistic backgrounds, culture and degree of expertise, the use of this service "the phone kiosk" may differ from other segments and context (i.e., checking in kiosk, ATM machines and scanning machines at the retailing

stores) and the needs to be fulfilled may be different as well. Therefore, research into how attributes such as functionality, accessibility, security, customisation and design increase uptake of this service and the intention to continue using it in the future is warranted. The lack of research into how the self-service phone kiosk affect pilgrim experience deserves further academic attention.

The idea of pilgrim experience has been investigated in other fields such as anthropology, tourism and history (Bowen, 1989), however, the concept of pilgrim experience has received scant attention in the marketing literature (Garcês, Pocinho & Jesus, 2017). This research was undertaken in order to increase knowledge of what Muslim pilgrim customers need and what would appeal to them in terms of self-service phone kiosk usage. An understanding of the evaluation of each attributes of self-service phone kiosk amongst pilgrim, the pilgrims' satisfaction with the self-service phone kiosk usage as well as continued usage intention of this service.

1. 3 Research Questions and Objectives

To address the aforementioned gaps, this research aims to 1) explore the motivational factors that underlie pilgrim experience and to develop a measurement scale for the construct of pilgrim experience; and 2) examine the influence of self-service phone kiosk attributes (i.e., functionality, security, accessibility, customisation, and design) on pilgrim's satisfaction with their self-service phone kiosk encounter and their overall pilgrim experience, as well as the impact on the continued usage intention of this service.

Particularly, this study will explore the following research questions:

1. What are the motivational factors that underlie pilgrim experience?

2. How do the self-service phone kiosk attributes such as functionality, security, accessibility, customisation, and design influence pilgrim experience?

3. How do self-service phone kiosk attributes such as functionality, security, accessibility, customisation, and design affect pilgrim satisfaction?

4. What is the impact of pilgrim satisfaction with self-service phone kiosk attributes and their experience on continued usage intention?

1.4 Significance of the Research

There are several expecting contributions in terms of theory, practice and methodology aspects. Moreover, as this topic relates to pilgrims who are religiously motivated, it can be seen as sensitive, and has therefore been largely ignored up to now and so research into pilgrim experience can potentially add to the body of knowledge (Schutte, Malouff, Hall, Haggerty, Cooper, Golden & Dornheim, 1998). While anthropologists have looked into the social and historical aspects of pilgrimage, this study seeks to contribute to the marketing literature by exploring the relationship between self-service phone kiosk attributes and pilgrim consumption experience which in turn affect the continue usage intention.

The values this service can add to the pilgrim experience in Makkah is enhancing the spirituality through easing the way of getting the telecommunication services and concentrating on the purpose of travelling all the way to Makkah which is worshipping. Essentially, ease the way of having the service contributes in a clear mind that allow pilgrims to gain more spiritual feelings and increase the feelings of connection with Allah. Also, in terms of adding value to Makkah as a city this considered as one goal of the community in Makkah to enhance the experience for the visitors and pilgrims through providing services that implementing this technological goal and make the service accessible in terms of language and location.

Furthermore, the researcher as one of this community sets her own goals alongside with the community goals through this thesis to explore more about the benefits of technological based services to turn Makkah as a self-serviced city and wished to be achieved in the near future. Also, this would contribute in provide an accessible service for the pilgrims who are coming from different background and language. Additionally, this service is cost efficient for the providers indeed.

Methodologically, the use of mixed method helps to enrich the insights into the research. This study will contribute to the marketing literature by developing a measurement scale for the construct of pilgrim experience. Future research may use the measurement of pilgrim experience developed in this study in other contexts.

Practically, this research will provide service providers with information that will facilitate the management of self-service technologies and what could be done to enhance services especially for the pilgrim segment. Furthermore, the impact of each attribute of the self- service phone kiosk which affects the adoption and satisfaction with the service and insights of how this service can be improved to serve a large population in a professional way is also offered. Stakeholder benefits from this thesis include the potential increase in profit due to embracing this service as well as providing more understanding of customer behaviour and needs.

1.5 Context of the Study

This research explores self-service phone kiosk usage amongst pilgrim consumers around the holy mosque area in Makkah during the pilgrimage (i.e., Hajj) season and visit (i.e., Umrah) seasons. This context was selected to allow the study the new self-service "phone kiosk" which launched in the telecommunication services company STC. With it will come understanding of a new technological service for this special gathering of a large number of people which could help to increase profitability for companies by providing a professional service to its users. This service is considered a supplementary service to its staffed service. One of the leading companies in Saudi Arabia providing telecommunication services, STC, launched the kiosk service around the holy mosque in Makkah, and the service continues to flourish in other parts of the Kingdom of Saudi Arabia. These kiosks help users in several ways:

1. issuing a new number using the customer's ID or fingerprint
2. payment or pre-payment of phone services
3. assisting in finding a suitable service for each customer

In brief this service can be a substitute for the staffed service, enabling customers to access services themselves (for further details on the self-service phone kiosk service, please see this link https: //www.stc.com.sa/wps/wcm/connect/english/helpAndSupport/Self+service+kiosk).

1.6 Definition of Key Terms in this Thesis

Pilgrim experience: the experience of pilgrims on a pilgrimage related to spirituality and worship.

Self-service phone kiosk: a newly established self-service kiosk that allows customers to obtain phone services that they would normally get from the phone company's physical stores.

Functionality attribute: the performance of the self-service phone kiosk that makes it easy and efficient to use.

Security attribute: the degree to which security for users of the kiosk is maintained in terms of revealing personal or financial information.

Accessibility attribute: operating hours and location of the kiosks from the point of view of pilgrim customers.

Customization attribute: the degree to which the services are customised and maximized for customer needs and desires.

Design attribute: to what extent the self-service phone kiosk is able to deliver quick, easy,understandable instructions and seamless process.

Satisfaction encounter with the self-service phone kiosk: the degree of satisfaction or dissatisfaction pilgrim customers experience with the use of the self-service phone kiosk.

Continued usage intention: customers' intention to use the self-service phone kiosk again in the future.

1.7 Organization of the Thesis

This research is organised into six chapters. The first chapter represents an introduction, giving the background to the research objectives (i.e., pilgrim experience, self-service phone kiosk attributes, satisfaction encounter of the self-service phone kiosk and continued usage intention of self-service phone kiosk). It also presents the research problem, the research question and objectives with the significance of this research alongside the research context and some key term definitions.

Chapter two is an in-depth review of the literature, which is followed by a presentation of the research hypotheses. The presentation of the two methods used in this study is covered in the third chapter providing details of the sample size and data collection sites with respect to the steps taken to build the measurement of each study method. In the fourth chapter, testing the hypotheses over several phases from the analysis of qualitative test data from the focus group interviews to the quantitative analysis of the survey data is presented. The analysis of the exploratory factor EFA and the structural equation modelling SEM is presented in this chapter also. The fifth chapter presents a discussion of the findings also stating the theoretical, methodological and practical contributions of the study. The conclusion, limitations and future research questions are presented in the last chapter.

Chapter 2: Literature Review

2.1 Introduction

Pilgrimage is a phenomenon which cuts across religions and cultures being a unique ritual and religious ceremony. In accordance with the research objectives presented in the introduction chapter, this chapter presents a review of the literature in regard to the pilgrim experience from the perspectives of tourism, historical and religion studies. This knowledge of the pilgrim experience helps us understand pilgrims' consumptions behaviouir in regard to the self-service phone kiosk. Reviewing the literature provides insights into self-service phone kiosk attributes which apply to pilgrims particularly. For example, the self-service phone kiosk attributes reviewed were functionality, accessibility, security, customisation and design. These elements were linked to the pilgrim experience in order to comprehend the literature review to discover the attributes that would most appeal to these niche customers. Satisfaction with the self-service phone kiosk experience is the overall goal for both customers and service providers. This satisfaction toward the self-service phone kiosk would potentially increase the usage and the intention to continue using this service. Satisfactory encounters with the self-service phone kiosk and the intention to continue to use the service is therefore reviewed through examining the available literature. This literature review is followed by the development of hypotheses which examine the link between the above-mentioned variables.

2.2 Religious Pilgrimage from the Perspective of Tourism

Religion and tourism share a close relationship in which religion plays a role to motivate travel and is a source of tourist attractions (Henderson, 2011). For decades, religious tourism has played a major role in attracting travellers to holy sites for the performance of rituals (Almuhrzi & Alsawafi, 2017).

Previous studies on this topic have focused on the differences between pilgrims and secular tourists and have argued that these two concepts are different in terms of a continuum, as the pilgrims occupy the sacred place while tourists are situated on a secular term or journey (Stausberg, 2014). Motivation differs between these groups; the pilgrims are mainly religious seekers and spirituality focused, while the tourists are motivated by curiosity and relaxation (Wilson, McIntosh & Zahra, 2013). However, Hudman and Jackson (1992) argued that pilgrims are motivated by both their religious devotion and touristic pleasure. The study of the pilgrimage concept in relations to tourism is still limited and most studies look at this subject through the lens of consumption (Kong, 2001).

One key task of hosting the hajj has been to expand the capacity of facilities and accommodation (Henderson, 2011), suggesting the timeliness of an examination of self-service phone kiosk use and how it enhances the pilgrim experience. This study draws on the literature on customer experience from the field of tourism, hospitality and the retail/services literature. However, the difference between this form of customer experience at retail or services setting as compared to pilgrim experience (which emphasises soul and spiritual enhancement) deserves further attention.

2.3 The Pilgrim Experience

The pilgrim experience reviewed through some tourism, anthropology, history and religious scholars to enhance and emphasise critical issues related to pilgrims and their spiritual journey to the sacred sites. A review of this literature is followed by a quick review of the spiritual aspect and its associations with the pilgrimage.

2.3.1 Pilgrimage from an Anthropological Perspective

Anthropological studies approached this topic by focusing on the connection between pilgrimage and social dimensions, as the pilgrimage is considered a vehicle to further understanding of complex societies and civilisations (Vidyarthi, 1961).

One of the most notable contributions in anthropology is Turner's (1973) study, in which he found that pilgrimage, is a move toward a complex or highly structural journey when compared to everyday life for the pilgrims or "participants" as he called them.

According to Morinis (1992), Turner's study has flourished the later studies in terms of creating a new concept in anthropological understanding. From an anthropologist's perspective, pilgrims and tourists are seekers of different benefits, the pilgrims seeking what is referred to as 'hereafter benefits' and a sense of belonging to a religion in terms of their spirituality (Reader & Tanabe, 1998). However for tourists or leisure travellers, the benefits from travelling are mostly based on hedonistic purposes (Turnbull, 1981; Salazar, 2014). In some cases, a tourist's motivation can be unison with their religious motivation (e.g., spiritual) (Henderson, 2011).

2.4 Concepts Related to Pilgrim Experience

Notably, the spiritual tourism is an old phenomenon and it received less attention in the Tourism literature, and the exploration of this phenomena in the marketing field is relatively recent (Henderson, 2011). Barkathunnisha, Lee and Price (2017) found that there is an increase in the spirituality aspect within tourism and they claimed for more exploring about a possible model to be included in tourism education. Some researchers have looked at spiritual connectivity, and one qualitative study argued that the harmonious sense of self within tourism and pilgrimage in particular, needs more research (Buzinde et al., 2014). For example, the participants of this study stated that they undertook their journey to find themselves, to achieve inner peace, and/or increase their spiritualty. Some participants stated that their normal, daily obligations are one of the reasons that can reduce their spiritual connection, which they believed is necessary to maintain their true sense of self (Buzinde et al., 2014).

In essence of the meaning of pilgrimage, some identify it by the destination point that pilgrims are making to be in a spiritual place, a place that separates them from their meaningless daily life to re-orient them to their sense of self and increase their knowledge of how they can increase their spirituality and maintain it once when they return home (Moal-Ulvoas, 2017). Alternatively, some research added a new concept of the

spiritual journey and called it a "new age" which is a pilgrimage to new sites that are

not associated with a specific religion or group (Reader, 2007). Roof (1993), in his book

explained about the changes in religion affiliation and spiritual practice among the

generations over the past several decades, remarking that amongst the American

population many sought to connect to a higher power in some form.

In recent times pilgrims of various faiths and religions have begun to consult internet platforms, social media or online forums as part of their pre-pilgrimage preparation to get advice on where to go, what to bring and what to wear (Park, Seo & Kandampully, 2016). So, that the type of services provided are very impotant to ease their journey and not destract them to searh for a service suits them better with meeting their needs with a minimum time and effort. So, they can devote their time worshipping. Thus, the next section review marketing, service and retailing literature about self-service technology to shed a light into how this service serves this segment.

2.5 Self-Service Technologies

2.5.1 An Overview of the Past Literature on the Self-Service Technologies and Customer Experience

Self-service technologies are one of the most important breakthrough technologies of the 21st century. The definition of this service according to Meuter, Ostrom, Roundtree and Bitner (2000) is; "Self-service technologies are technological interfaces that enable customers to use a service independent of direct service-employee involvement" (p.52). The benefits of this technology are varied, such as improving productivity and efficiency, serving consumers through a convenient and independence-enhancing service, which will increase customer satisfaction that resulting in an increase in the number of loyal customers (Meuter,Ostrom, Bitner & Roundtree, 2003).

On the other hand, Edison and Geissler (2003); and Modahl (1999) pointed out that some potential customers are pessimistic about self-service technology due to psychographic characteristics between individuals differs. In contrast, an optimistic view would remedy this situation where a positive view of technology is held with a belief that this

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type of service offers people increased control, flexibility and efficiency. This would encourage customers to use self-service technologies and have positive attitudes toward this new type of service delivery.

In addition, Curran, Meuter, and Surprenant (2003) stated that, with the introduction of self-service technology systems, retailers prepare customers to be productive resources involved in the service delivery process, which in turn helps retailers overcome two problems resulting from human interaction in traditional service encounters. First, the introduction of self-service technology allows demand fluctuations to be handled without the expensive adjustment of employee levels. Second, a major part of the service process is incorporated owing to the technological interface, leading to a more harmonious service atmosphere independent of an employee's personality or mood. Moreover, self-service technologies in the retail industry might attract those people who are willing and happy to use high technology, who base their satisfaction with a service on whether a retailer is technologically advanced or not.

Businesses have jumped on the bandwagon to adopt self-service technologies in their service delivery given its potential for streamlining service transactions, overhead reduction, and possibly leading to a boost in revenue (Buhalis & Connor, 2005). It is evident that customer-controlled technologically-based services are increasingly replacing many physical service interactions, with the aim of enhancing the outcomes and experiences of services that emphasise convenience and accuracy (Chang & Yang, 2008). Despite the amount of research on self-service technologies in the literature, there is still much to be learned about the "pilgrimage" customer experience in regard to technology-based self-service options.

Purchase decision making is empowered by customer experience of pre-and-post purchase processes (Carù & Cova, 2003). Customer experience originates from a set of interactions between the customer and other parties or parts of the purchase (i.e., company, product or a part of an organisation) (Srivastava & Kaul, 2014). The benefits a company can gain from understanding customer experience is substantial, hence marketers should orchestrate all the evidence that people expose in the buying process (Verhoef, Lemon, Parasuraman, Roggeveen, Tsiros & Schlesinger, 2009).

2.5.2 Self-Service Attributes of the Phone Kiosk

 The competitive world needs more technological advances to keep up to date with changes and usher customers toward more cost efficient and convenient ways of purchasing. Self-service technologies are the most talented way of achieving this; especially for the pilgrim segment which need these types of technology to undertake their pilgrimage more easily and comfortably.

Self-service technologies that fail to function properly may increase the frustration and inconvenience associated with the system, which may in turn lead to customers shifting to traditional services or competitors' services. The literature refers to functionality in various terms; performance, ease of use and perceived ease of use (e.g., Chang, Fu, Fang & Cheng, 2016; Lin & Hsieh, 2011; López-Bonilla & López-Bonilla, 2013; Dabholkar, 1996; Bendapudi & Leone 2003). Discomfort and feelings of insecurity sometimes lead to avoidance of such services, and the literature has elaborated on this phenomenon (e.g., Chang et al., 2016; Mady, 2011; Rhee, Kim & Ryu, 2009; Kim, Lee & Ham, 2013; Li & Suomi, 2009; Parasuraman & Colby, 2015; Belanger, Hiller & Smith, 2002; Suh & Han, 2003; Curran & Meuter, 2005; Barua, Aimin & Hongyi, 2018). The feeling of insecurity is highly

correlated with avoidance of self-service technology, with a great number of people not understanding how to use the technology and therefore not trusting it and they sceptical about its ability to work properly (Lin & Hsieh, 2007).

Past literature emphasised the importance of accessible location and hours of operation to increase the adoption of this type of service (e.g., Yen & Gwinner, 2003; Ganesh, Reynolds, Luckett & Pomirleanu, 2010; Kwon & Lennon, 2009; Murphy, 2008; Chatfield & Al Anazi, 2013).

Customising the service so that it appeals to each customer also increases adoption and satisfaction in the long run, marketing scholar investigated this attribute in terms of the self-service technologies (e.g., Chang et al., 2016; Lovelock & Young, 1979; Mills, Chase & Margulies, 1983; Mills & Morris, 1986; Auh, Bell, McLeod & Shih, 2007; Ganesh & et al., 2010; Mathwick, Wagner & Unni, 2010; Srinivasan, Anderson & Ponnavolu, 2002; Nielsen, 2000; Zeithaml, Parasuraman & Malhotra, 2002).

Several past studies discuss the attribute of design and the positive and negative aspects related to it and how to adjust self-service technology design to what customers need (e.g., Elliott, Meng & Hall, 2012; Chang et al., 2016; Roy Chowdhury, Patro, Venugopal & Israel, 2014; Zhu, Nakata, Sivakumar & Grewal, 2007; Chang & Yang, 2008).

Moreover, this new technology might be able to reposition companies, widening the company's consumer base and attracting different segments of customer, especially technology-oriented consumers. There are challenges and drawbacks to introduce a new technology system just as there are positive outcomes. The following section will discuss the attributes of a self-service phone kiosk, namely, functionality, accessibility, security, customisation, design and security which are examined in this thesis.

2.5.3 Functionality

Early research looked at this aspect of self-service technology as it relates to customers' adoption of innovation and the role of customer behaviour in regard to new technological services in both the product and service markets (Lin & Hsieh, 2011). Much research looked at aspects of individual characteristics and the efficiency and functionality of the service to serve a large customer base and assure that this service can be relied upon, and it is effective and reliable (López-Bonilla & López-Bonilla, 2013). In other words, satisfying early adopters is one of the aims that service providers are interested in to obtain as the spread of word-of-mouth through different platforms both offline and online (Dabholkar, 1996).

Functionality is an important attribute in the adoption of self-service technologies. Functionality, or performance, can be defined as to what degree the operation of the technology service is accurate and dependable (Dabholkar, 1996), or, in other words, how the service performs and whether it fulfils all the services customers require or not. Another study defined it as whether it satisfies customers or performs as customers expect (Meuter et al., 2000). Yet other research defined functionality as the process or the way the system is redirected according customers' requests, and includes accessibility, responsiveness, customization, ease-of-use and technological excellence, and achieving customer satisfaction (Collier & Bienstock, 2006; Lin & Hsieh, 2011). This study defines the optimum functionality of the self-service phone kiosk as a smooth, accurate and reliable process to deliver the service according to customers' needs (i.e., pilgrim or visitor) requiring less time and effort more than traditional services.

Notwithstanding, when a service failure occurs, it is not always clear whether the users or the self-service technology itself is responsible, as is often the case with self-service technology mishaps (Bendapudi & Leone, 2003). Specifically, the external sources as poor

technology design, service breakdown or a newly updated service can be responsible, while the internal sources as wrong inputs by a customer or less familiarity with the service updates can be negatively affected the provider and the customer as well (Chang et al., 2016). Therefore, the self-service technologies whose design features require much heavier cognitive loads than users are willing to carry are less effective and efficient than technologies that do not. So that, self-service technology interface design has an influence on cognitive demand and therefore functionality, the customers' abilities also determine functionality and effectiveness (Van Beuningen, De Ruyter, Wetzels & Streukens, 2009).

Previous literature has indicated that self-service technology interface design has a significant role in customer adoption and, subsequently, on their overall perceptions and experience of the service encounter (Davis, Bagozzi & Warshaw, 1992). One element of function associated with design is perceived control, one study stated that, as long as the design of the self-service technology system flowed smoothly and met the varied needs of the customers, adoption would increase as well as satisfaction (Meuter et al., 2000).

Another element of positive functionality is a higher degree of confidence in purchasing decisions, which positively affects customers' attitudes toward the shopping experience (Alba, Lynch, Weitz, Janiszewski, Lutz, Sawyer & Wood, 1997). The advantages of self-service technologies usage vary, one of them is the choices comparisons which can help reduce asymmetry in terms of the customer providing personal information as well as the company providing information. This would eventually increase customer engagement in the decision making process which increases a sense of self determination in regard to self-service technology use (Van Beuningen et al., 2009). Functionality correlates highly to consumer satisfaction with self-service technologies which in turn affects continued use (Davis et al., 1992).

Researchers have enquired into how functionality affects satisfaction and in which way, and they found that repeated exposure to reliable and accurate performance of self-service technologies can strengthen the relationship between customer and the service, in terms providing a convenient and trusted service that is in fact a superior service platform (Johnson, Bardhi & Dunn, 2008). Also, the functionality of the self-service technology mode potentially increases the benefits of using this type of service such as; timesaving, confidence, convenience, loyalty and satisfaction which may increase the user's intention to use this mode (Beatson, Lee & Coote, 2007). Therefore, some scholars assumed that a positive experience with self-service technologies may contribute toward a positive attachment to the firm and this could potentially increase repeated use (Yen, 2005; Considine & Cormican, 2016).

2.5.4 Accessibility

Accessibility, or convenience as some scholars referred to it, is the ability of self-service technology to process a service and deliver it to customers with consideration to customers' needs in terms of timing and location, as well as providing a help service if the customer faces any problems with the delivery of his/her service (Ju Rebecca, Yen & Gwinner, 2003; Meuter et al., 2001; Ganesh et al., 2010; Kwon & Lennon, 2009; Murphy, 2008; Chatfield & Al Anazi, 2013). This research defines accessibility in terms of the kiosks' flexible operating hours and location close to the target segment which will ensure adoption and satisfaction.

In Meuter, Bitner, Ostrom and Brown's (2005) study, the sub-dimensions of time and location were directly linked to satisfaction, explaining that customers often complain that companies often offer limited service hours. As a result, users who having a difficult work schedule in relation to limited service hours had difficulty accessing services. In

addition, if any incident occurred that prevented them from reaching the firm service hours, this would cause them stress and inconvenience. Therefore, the accessibility of the service and convenience for the user is essential to the success of the technology (Wang & Wang, 2010; Childers, Carr, Peck & Carson, 2001; Yang, Peterson & Cai, 2003).

2.5.5 Security

New technology adoption has a few critical factors, one of which is that the service is safe and secure for users. It also needs to be fast and easy as well as providing assistance services, which guarantee even more security (Mady, 2011). Michelle Bobbitt and Dablokar (2001) referred to security as perceived risk and categorised it as an external influence that associated with different terms, first, associated with different financial and psychological ability of customer to use the self-service technologies based, second, associated with personal information requested through self-service technologies.Moreover, the negative effects that may occur after purchasing though this mode of service may lead to avoidance of online or any type of self-service technology and the customers returning to conventional modes of service. This important factor has been recognised as a key to use the self-service technologies in different settings (Rhee, Kim & Ryu, 2009).

Security is protection from a threat that has been identified as a circumstances, condition, or potential hardship customers may confront with while using self-service technologies, which may include; denial of service and/or fraud, destruction of the service while using it, disclosure of personal information, modification of personal data or any type of technological abuse or use of customers' personal information leading to cyberbullying or blackmail (Kim, Lee, & Ham, 2013). These different types of threat can occur in different online service platforms and may include transaction services and online services accessed

through a normal PC or shopping kiosks or scanning machines which can be through

unauthorized access by means of false or deceptive authentication (Li & Suomi, 2009).

Past research captured the need for confidence and comfort, not only for users, but

also for employees in client-contact services, that would be more essential for technology

based service otherwise productivity may decline (Parasuraman & Colby, 2015).

An optimistic outlook would facilitate the use of self-service technologies and lower

feelings of insecurity and discomfort (Curran & Meuter, 2005). In one previous study, the

authors referred to security as perceived risk and found it to be one of the most important

affecting factors in terms of service adoption in different e-service facilities, and they found

a relationship between perceived cost and perceived risk from various perspectives. For

example, the low cost of using self-service technologies may be a factor that makes

customers sacrifice security factors on (Belanger et al., 2002; Suh & Han, 2003). However,

there are beliefs held that self-service technology use is expensive and this could delay self-

service technology adoption (Parasuraman, Zeithaml & Malhotra, 2005).

According to Bauer (1960), who was among the first authors to investigate this topic,

security is related to psychological and behavioural factors. Moreover, security attributes are

defined as the engine of self-service technologies usage that emanating from the challenge of

harmonise the internal and external threats (Thomas & Tow, 2002; Addy & Lynn, 1999). The

current research defined the self-service phone kiosk security attribute as feelings of being

insecure or unsafe during, before or after using the service caused revealing personal

information through this service. There are security factors which are relatively important

such as perceived anonymity in revealing personal information while using self-service

technologies and how this may impact on adoption as well as on continued use (Lee &

Turban, 2001; Elliott et al., 2012). As perceived anonymity is associated with the security

factor, the use of self-service technologies also positively influences consumers' satisfaction with and repeated use of self-service technologies. However, past research has also found a positive influence of the security factor related to perceived anonymity increasing self-esteem and reducing anxiety (Wolfinbarger & Gilly, 2003).

2.5.6 Customisation

Customisation in terms of self-service technology is a factor that customers are commonly seeking for due to the potential benefits for both the buyer and the seller (Mills & Morris, 1986). This is, unfortunately, not well understood in terms of customer use of self-service technologies and how this factor could benefit customers and providers (Lovelock & Young, 1979; Mills et al, 1983; Mills & Morris, 1986). Customisation can be defined as processing a service and tailoring it to what each customer needs and wants. For instance, if a customer use the service and the options on the screen did not satisfay him/her or meet what s/he needs, this would lead to frustration and avoidance next time. This factor can benefit the consumer through delivering exactly what he/she wants in a process under his/her control thus reducing the customer's cognitive effort and improving the quality of decision-making (Auh, Bell, McLeod & Shih, 2007; Ganesh et al., 2010; Mathwick, Wagner & Unni 2010; Srinivasan, Anderson & Ponnavolu, 2002; Nielsen, 2000; Zeithaml, Parasuraman & Malhotra, 2002). In terms of the business's benefits, self-service can be more economically beneficial than traditional services (Diehl, Kornish & Lynch Jr, 2003). It can also be another way of satisfying users and ensuring continued intention (Wind & Rangaswamy, 2001). To ensure both customer and service provider benefits, the provider should find a technologically-based service that allows customers to be involved in service delivery with providing more accurate and precise service (Häubl & Trifts, 2000; Walker, Craig-Lees, Hecker & Francis, 2002). This may in turn increase the company's customer base with loyal customers who will

probably repeatedly use this service (Zipkin, 2001; Berry, 1999). Conversely, poor self-service interface technologies may lead to frustrations and rejection of the service in the long term (Curran et al., 2003; Dabholkar, 1996). Past research found that a sense of control can increase the feeling of enjoyment and thereby increase satisfaction with the outcome (Moe & Fader, 2004). This would in turn also increase the intention to use again (Dabholkar, 1996).

2.5.7 Design

Design and functionality are two attributes of self-service technology that have some common ground (Elliott et al, 2012). In terms of similarity, these two factors rely heavily on the providers or firms to offer a functional and efficient design to the consumers to create a reliable and convenient service. In terms of differences; functionality may include location, disabled access and operating hours. Whereas design is more about the technological aspects including graphics and icons that appear on interface screens and may include sound volume and services for people with disabilities, specifically, people with hearing and vision problems (Roy Chowdhury, Patro, Venugopal & Israel, 2014).

Past research has emphasised that a single-feature design for self-service technologies would effect customers' use, with single-feature here meaning either comparative information or interactive. These design features can enliven customers' cognitive capacity and increase perceived control and interface evaluation (Zhu, Nakata, Sivakumar & Grewal, 2007). With combined feature design, customers probably more negatively evaluate the self-service interface than with the single-feature design. This may be because single-feature design can be used with less cognitive load and effort rather than combined-feature design (Zhu, Nakata, Sivakumar & Grewal, 2007).

In contrast, in a qualitative research on the options for customers in a service exchange, it was found that some customers were concerned about the effort required and the complexity of using interactive services rather than conventional face-to-face services (Chang & Yang, 2008).

Functional design can assist adoption according to a previous study which found that interactive design increases the sense of control that leads to a higher degree of satisfaction (Demirci-Orel & Kara, 2015). To answer the challenges faced by service providers to predict exactly which information or service each customer may need, interactive design allows users to determine their own priority and the strategies they want to follow in processing the service (Considine & Cormican, 2016). Another study found that presenting the service's information in hierarchical layers led to more ease-of-use and decreased problems of uncertainty in self-service technology use and promoted customers' preferences (Curran & Meuter, 2005). Another advantage of functional design is that it develops contingent strategies when browsing the service (Hoffman & Novak, 1996). For example, in the clothing and fashion industry virtual dressing technologies engaging customers cognitively and physically in being able to see and select an item they want increased positive overall perceptions of the self-service technology (Choi & Park, 2014).

Therefore, self-service technologies should be skilfully designed to enhance customer use and attain loyal customers by satisfying them with an easy, fast service that meets each individual customer's needs which will ensure their intention to continue to use it (Barua et al., 2018).

2.6 Conceptual Framework Development

The development of this conceptual framework is based upon a thorough literature review from the perspectives of tourism, anthropology, history and religious studies. A pilgrimage is a fundamental journey to be taken by various religions' followers. In Islam this journey is one of the five pillars of Islam (mandatory acts required of Muslims) every Muslim should undertake it unless there are financial or physical hardships preventing it. In Islam, spirituality can be enhanced through worship to Allah. Much past research discovered that pilgrims need a facilitation in services during the pilgrimage or visit (e.g., transportation, accommodation and telecommunication services) in order to increase the spiritual progress and fulfil their pilgrimage satisfactorily (Almuhrzi & Alsawafi, 2017). The concept of pilgrim experience is one of the key focus of this study.

It is the central tenet of this study to examine how self-service phone kiosk can affect pilgrim's satisfaction with the use of phone kiosk and their overall pilgrim experience which, in turn, influence their continued usage intention. The selection of the self-service attributes was based on existing literature as well as the outome of two focus group interviews. The self-service attributes of the study include functionality, accessibility, security, customisation and design. The next section provides a review of the constructs of satisfaction with the self-service encounter and continued usage intention.

2.6.1 Satisfaction Encounter Toward Self-Service Phone Kiosk

Satisfaction has been defined as the "customers' comprehension of the fulfilment of their needs, requirements, and goals at a desired level occurring from the use of a product or service" (Barua et al., 2018 p., 452). Fundamentally, consumer satisfaction is highly correlated to company performance and is a conventional concern and considered a primary objective for managers (Yi, 1990).

A recent empirical study found that there was a negative association between innovativeness and perceived usefulness of technology. This was highly associated with online banking adoption (Chih-Hung Wang, 2012). With customers tending to prefer the less risky options in terms of bank services, for example. Even though they may have some knowledge of how to use online banking services, they tend to go to the bank branch as they perceive more risk in the online transaction and the customer-to-employee interaction makes them feel surer and comfortable (Meuter et al., 2000). Behavioural science and individual psychology research suggested that an individual's innovativeness is an important factor in the adoption of technology (Meuter et al., 2000). In order to have a clear perception of new technology, customers should have had previous experience with information technology innovativeness. Up to now many people have lacked knowledge in this regard (Meuter et al., 2000). Wang and Shih (2009) pointed out that the success of self-accessed services depends significantly on whether customers have the ability to use the new information technology or not.

Within the domain of online retail shopping, service innovation has rapidly increased leading to more adoption and use. This is not the only challenge to be considered, however, as problems such as receiving the wrong item, shipment problems and misleading advertising problems can still occur with online shopping services, and while these factors are still uncontrollable, they may negatively influence adoption and actual use of self-service technologies (Meuter et al., 2000).

Furthermore, in the retail context, self-service technologies' hedonic and utilitarian aspects also significantly impact the attitude toward satisfaction and continued use intention (Leung, 2016). However, utilitarian factors showed a greater impact on consumer satisfaction than the hedonic factors in self-service technology use (Leung, 2016). One piece of research focused on customer retention found that satisfaction is one element that inevitably leads to customer retention this was globally measurable and stable over time (Jones & Suh, 2000).

Bitner, Brown and Meuter (2000) as well as van der Wal, Pampallis and Bond (2002), agreed that self-service technologies give customers a higher degree of satisfaction while at the same time increasing the efficiency and effectiveness of service providers. In addition, the satisfaction that occurs after purchasing through self-service technology indicates customers were avoiding using more facilitative processes. Wang, Harris, and Patterson (2009) found that situational influences such as task complexity, waiting time and group influence, may have an impact on an individual's choice to use self-service technology.

Ultimately, satisfaction is an important element firms and customers want to reach after using such a service. Literature about self-service technology encounter satisfaction shows it plays a pivotal role in satisfying customers which in turn is considered a key in increasing efficiency and economic benefits. These benefits of satisfaction will potentially affect pilgrims and visitor customers at the holy sites in Makkah. This phone kiosk service might also play a role in serving large crowds with a minimum of time and effort. This service may help the company tackle problems of employees' interaction with customers arising from dealing with large crowds. Satisfaction with a contributes greatly to continued use of that service, the next section presents a review of the literature on continued use intention with regard to self-service technologies.

2.6.2 Continued Usage Intention of Self-Service Phone Kiosk

All the concepts mentioned above are now viewed from the point of view of whether attributes of the self-service technology lead to repeated use or not, and whether the pilgrim experience is conducive in regard to continued use. In other words, what influences pilgrims to take the initiative to try this innovative technology, and what affects their use of it. Trial intention is an evaluation that would lead customers to try a new technology (Liljander et al., 2006; Lin & Hsieh, 2007; Weijters, Rangarajan, Falk, & Schillewaert, 2007). In a previous study, authors found that firms who provide self-service technology wish to gain rapid acceptance by current and potential customers alike. The past findings also showed that pre-purchase expectation and post-purchase performance had a significant influence on the satisfaction of the user and intention to repeat purchase (Chen, Chen & Chen, 2009). The next phase would be satisfaction that would lead to recommending the self-service technology to the customer's social group and relatives. Figure 2.1 presents the conceptual framework development of this research which demonstrates the presumed impact of self-service phone kiosk attributes on satisfaction with self-service encounter and pilgrim experience as well as their impact on continued usage intention.

Figure 2.1 **Hypotheses Model Development**

2.7 Hypotheses Development

The following hypotheses development are formulated from several variables; the self-service phone kiosks' attributes, the pilgrim experience, satisfaction encounter with the self-service phone kiosk, and these are then tested through the dependent variable; the continued usage intention of the self-service phone kiosk.

2.7.1 The Link Between Self-Service Phone Kiosk Attributes and Satisfaction Encounter

Whether or not the set of self-service technology attributes will lead to satisfying experiences or unsatisfying ones is depending on the research setting and the research sample (Meuter et al., 2005). Many studies have investigated issues related to use of self-service technologies and how to make them more pleasant and efficient to use (Beatson, Lee & Coote, 2007). Satisfaction with the self-service technologies is a challenging variable for researchers as differences in perception and the degree of expertise in using this method of service varies widely (Wang, So, & Sparks, 2017).

In an early study, found that users of technology-based services tend to be young and from a low income level (Walsh & Godfrey, 2000).It has also been found that some customers will use self-service options whether or not there is a timesaving benefit (Barua et al., 2018). Therefore until the sample's background and preferences are known, determining and generalising the overall outcome of self-service technology use will be difficult to determine, as individuals and their needs differ in this respect (Demirci-Orel & Kara, 2015). This research looked at functionality to investigate whether this has an impact on customers in terms of satisfaction.

Recent research defined functionality as the ease that users feel when handling the technology, or the lack of effort required when using the self-service technology as well as freedom from difficulty (Kijsanayotin, Pannarunothai & Speedie, 2009). In other words, technology that requires little effort and is not difficult for the user to comprehend is functional. Functionality relates to the functional design which can satisfy customers (Demirci-Orel & Kara, 2015). Thus, the following hypothesis is posited:

H1a The functionality attribute of the self-service phone kiosk will have a positive influence on the pilgrims' satisfaction encounter of self-service phone kiosk.

The accessibility of the self-service phone kiosk is the second attribute. Being able to use the self-service technologies anywhere and at any time is one of the most important factors for customers not only to be confined to office hours which maybe busy (Meuter et al., 2005). Flexibility in using the service is a factor which causes users to switch to a technology-based service (Parasuraman & Grewal, 2000). Pilgrim customers might be influenced by the location and operating hours especially the prayer times (i.e., five prayers daily) and worships (Haq & Jackson, 2009) more likely to influence the working hours and flexible timing would appeal to the pilgrim customers of the self-service phone kiosk. Hence, the following hypothesis suggests:

H1b The accessibility attribute of the self-service phone kiosk will have a positive influence on the pilgrims' satisfaction encounter of self-service phone kiosk.

The attribute of security in self-service, especially in a phone kiosk setting may enhance pilgrim satisfaction with use of this service. Past research found this attribute to be the main indicator of satisfaction and acceptance (Bélanger & Carter, 2008; Hsin Chang & Chen, 2008; Kim & Qu, 2014). The level of security in self-service technologies does affect customers' evaluation of their experience and engagement with such services. Consequently, when the security factor is managed as customers require it prompts feelings of security and safety leading to a positive evaluation and vice versa (Considine & Cormican, 2016; George & Kumar, 2014; Gunawardana, Kulathunga & Perera, 2015; Kim & Qu, 2014; Lee, Fairhurst & Cho, 2013). Therefore, the security factor is an indicator of satisfaction toward self-service

technologies and based upon these findings, this research puts forward the following hypothesis:

H1c The security attribute of the self-service phone kiosk will have a positive impact on the pilgrims' satisfaction encounter of self-service phone kiosk.

Customising the service to customer needs and desires is the aim of most firms when providing services to customers through self-service technologies. For example, a lack of understanding and communication between customers and employees may lead to customers looking to different companies as well as new types of service (Meuter et al., 2000). These issues might be resolved with self-service technologies while simultaneously increasing the adoption and satisfaction toward the self-service technologies and the service's providers (Lin & Hsieh, 2011). This research proposes a hypothesis to test the impact of customisation attribute of self-service phone kiosk on the pilgrim satisfaction as follows:

H1d The customisation attribute of the self-service phone kiosk will have a positive impact on the pilgrims' satisfaction encounter of self-service phone kiosk .

Design is an important element in self-service technology use depending on setting and population (Meuter et al., 2000). Past research agreed that design that possesses easy instructions and simple guidance information increases customer use and helps it become a preferable mode of service delivery (Frow, Nenonen, Payne & Storbacka, 2015; Elliott et al, 2012). Customers tend to be satisfied with easy and simple technology design which facilitates their engagement with the service (Barrett, Davidson, Prabhu & Vargo, 2015). Consequently, this research assumes this factor will affect pilgrim satisfaction with the use of self-service phone kiosk. The following hypothesis is posed:

H1e The design attribute of the self-service phone kiosk will have a positive impact on the pilgrims' satisfaction with the self-service phone kiosk .

2.7.2 The Link Between Self-Service Phone Kiosk Attributes and Pilgrim Experience

The pilgrim experience is a focus of this research, this concept being largely ignored from a marketing perspective. However, there has been some tourism research in this area (e.g., Hudman & Jackson, 1992; Wilson, McIntosh & Zahra, 2013; Stausberg, 2014; Kong, 2001) which looked at pilgrims as a type of tourist or as religious tourists which helped the present research to gain some knowledge of how this segment could be studied and presented a new field of research that needs to be investigated. History and anthropology studies were also helpful to sketch out some knowledge of the pilgrims as a group (e.g.,Vidyarthi, 1961; Turner, 1973; Morinis, 1992; Reader & Tanabe, 1998; Turnbull, 1981; Salazar, 2014; Henderson, 2011; Buzinde et al., 2014; Moal-Ulvoas, 2017; Barkathunnisha & et al., 2017; Reader, 2007; Roof, 1993; Park & et al., 2016). There is no existing scale to measure the concept of pilgrim experience. Therefore, this research conducted two focus group interviews with Muslims visitors and pilgrims from a Muslim community in New Zealand. The outcomes of the focus interview was used to develop the scale for pilgrim experience.

Functionality is a necessary attribute in self-service technology use, because frustration and anxiety can occur in cases of low functionality and poor service performance, which may lead to avoidance and delay in embracing such a service. Companies' and consumers' might also be negatively affected if consumers reject the service due to difficulty in use or technical issues that may occur during use (Robertson, McDonald, Leckie, & McQuilken, 2016). Past studies have researched the functionality attribute from different perspectives and in different research settings; however, the relationship of this attribute to

self-service phone kiosk use among pilgrims has never been investigated.
Spirituality feelings can be enhanced if this service provided with care of
functionality of this service as many past research emphasised that spirituality has
interaction with a pure setting of mind and we assume that offering this attribute in
the self-service phone kiosk can increase the spirituality (Haq & Jackson, 2009).
Hence, this research put forward the following hypotheses in terms of the
relationship between functionality of the self-service phone kiosk and the pilgrim
experience.

H2a The functionality attribute of self-service phone kiosk will have a positive influence on the pilgrim experience.

The accessibility attribute is a desirable attribute integrated into self-service technologies
(Chatfield & Al Anazi, 2013). An accessible location and operating hours for the self-service
interface would increase the consumer base and ensure consumer retention and continued use
(Meuter et al., 2005). This attribute would affect pilgrim customers especially as they are in a
particular place with a specific purpose and they wish to pass their time primarily
worshipping and with as much as they could spiritual benefits (Ahmad, Rahman, Rehman,
Lbath, Afyouni, Khelil & Wahiddin, 2014). Therefore, the below hypothesis is posed:

H2b The accessibility attribute of the self-service phone kiosk will have a positive influence on the pilgrim experience.

Security is considered to be a priority attribute in delivering a successful service in terms of
technologically-based services (Considine & Cormican, 2016; Özer, Argan & Argan, 2013;
Robertson et al., 2016). This factor determines the use or rejection of self-service
technologies (Kallweit, Spreer & Toporowski, 2014). In one piece of research the authors not
only looked for the benefits of such a service, but also for the major challenges to consumer
acceptance and they found security was one of these and asked providers to offer more secure

services to consumers (Barua et al., 2018). That somehow can improve the worshipping and reinforce spiritual state of mind (Ahmad et al., 2014). The link between security related to the use of self-service phone kiosk and pilgrims has never been discussed by past scholars and so this research predects there is a link between these two elements. Therefore, the following hypothesis is put forward:

H2c The security attribute of the self-service phone kiosk will have a positive impact on the pilgrim experience.

The customisation factor in technologically based self-service is an important factor to ensure that customers do not switch to alternative services and continue to use this service (Meuter et al., 2000). As this self-service attribute could lead to the service appearing to be professional to customers and close employee availability gaps, it may lead to eliminating other service options and become the one and only service consumer choose to use (Lin & Hsieh, 2011). Customising services to consumers' needs increases profitability and satisfies the customers (Sun, Zhang, Guo, Sun & Su, 2008). The segment this research investigating is mainly pilgrims, who most often come from various regions, speaking different languages and from different age groups and therefore customisation is more important to satisfy the desires and requirements of these different groups to enhance their worshipping experience and increase spirituality which usage of this service can affect it in either way (Ahmad et al., 2014). Therefore, this research depicts a hypothesis to study the influence of customisation of the self-service phone kiosk on the pilgrim experience.

H2d The customisation attribute of the self-service phone kiosk will have a positive influence on the pilgrim experience.

As for design, there was general agreement among researchers that self-service technology design should be simple and easy to understand in order to enhance customer experience and provide satisfaction (Frow et al., 2015; Elliott et al, 2012). There was a call to involve customers in the design of self-service technologies, so that it may appeal to customers more, meet their needs, and address any disadvantages to viewe this service more favourably. This research assumes design will potentially affect the pilgrims' choosing whether to accept the self-service phone kiosk or switch to another method of service delivery based on how this could enhance their overall pilgrimage experience including spirituality needs and worshipping devotion (Ahmad et al., 2014). Therefor, the following hypothesis put to examine this role:

H2e The design attributes of the self-service phone kiosk will have a positive impact on the pilgrim experience.

2.7.3 The Link Between Satisfaction Encounter Self-Service Phone Kiosk and the Continued Usage Intention

In self-service delivery, customers become active participants and play the role of employees rather than ordinary customer (Prahalad & Ramaswamy, 2000). In examining the psychological motivation driving the continued use of self-service technologies, it has been found that there are two antecedents researchers found which ensure satisfaction with the self-service technology; perceived usefulness or benefit and perceived security (Beatson et al., 2007). The fulfilment of satisfaction can become a positive indicator of continued use and customers tend to rely on their satisfaction with past experience rather than on future expectations (Bhattacherjee & Lin, 2015).

In contrast, dissatisfaction with the self-service technology experience leads to avoidance of this service or switching to an alternative (Bhattacherjee & Lin, 2015; Venkatesh et al, 2003; Yeh & Teng, 2012). Due to the agreement between satisfaction with self-service technologies and continued usage intention of this type of service, this research posits a hypothesis to test this relationship between the self-service phone kiosk on pilgrim customers and the hypothesis is as follows:

H3 Self-service phone kiosk satisfaction encounter will influence continued usage intention positively.

2.7.4 The Link Between Pilgrim Experience and Continued Usage Intention of the Self-Service Phone Kiosk

The challenge in looking at pilgrim experience in relation to the self-service phone kiosk and continued use as there was no previous research in this area. Moreover, the pilgrim experience (i.e., spirituality and worship) can be positively affected by the use of the self-service phone kiosk and the self-service technologies in general, not only this phone kiosk service is being examined here. Since the subjective of this research is a diverse population with different cultural, educational and financial backgrounds located in a holy place for a specific purpose and this could provide insights into how these technologies flourish and enhance the pilgrimage experience and life in general. As this service (i.e., the self-service phone kiosk in Makkah) may be in a situation that will not support continued use as it is not available elsewhere and the users are only temporarily visiting this location. Hence, the following hypothesis is proposed:

H4 The pilgrim experience will influence continued usage intention positively.

2.8 Summary

In a summary this chapter provides a thorough review of the literature in looking at the pilgrim experience and an overview of this concept from various perspectives such as tourism, anthropology and history scholars. This was followed by a review of past research into self-service technologies and the attributes associated with these services. These assisted in the creation of the conceptual framework and the drawing up of the research hypotheses.

<center>**Chapter3: Methodology**</center>

3.1 Introduction

To accomplish the research objectives this chapter discusses the process used to collect the data for through a focus group and a intercept survey. In terms of the objectives of study 1 (the focus group) and study 2 (the intercept field survey), the sample size, the procedure, and ethical considerations will be discussed. Adding to these the measurement scale of the survey and the questions for the focus group interviews will be discussed in this chapter. This approach is followed by the analysis techniques adopted for both of the studies.

3.2 Aim of the Research

The aim of this study is to argue that there is a need to apply new insight which can help with variations of the result and the research method and accommodates the use of a different approach, in order to create underpinnings of the way the mixed methods have been utilised for this study. The mixed methods have also helped to sketch out the different outcomes which increase the knowledge about pilgrim experience, and help future research to complete the unexplored research areas (Clark, 2016). Another benefit of utilising a mixed method is that each method answers certain questions to complete each other by answering of what, why and how questions in a research, which fulfil the research topic with rich information (Mays & Pope, 1999). Therefore, this thesis consists of the mixed method approach to deeply examine the pilgrimage issues to amplify the accurate and consistent results because of each method is working as a confirming tool of the each study findings, which we aimed to bring forward. Thus, the focus group method plays a guiding and exploratory role in the development of the survey measurement and in understanding the phenomenon more deeply (Creswell, 2016). Besides that, to ensure the results of both researches are concerted effort to

widen the knowledge base of this thesis (Johnson, Onwuegbuzie, & Turner, 2007). Hence, this thesis consists of the mixed method approach to examine the pilgrimage experience and to provide evidence for the hypothesised relationships.

3.3 Study One: Focus Group Interview

3.3.1 The Rational of Utilising this Method

In terms of the focus group, this style of collecting data has been chosen for various reasons. Importantly, the focus group is unique in terms of its ability to generate the data based on the synergy of the group interaction (Rabiee, 2004). Focus group have been defined as a technique that involves a in-depth interview or a group discussion about a specific topic and the participants are selected according to their familiarity with the topic (Mattern, Lohmann & Ayerle, 2017). Therefore, a focus group is the most suitable for this research as it can explore the pilgrim experience, an area that is poorly discussed in the literature and to further familiarise the researcher with the topic (Rabiee, 2004). The familiarisation would be regarding of what exactly is offered to pilgrims and how it performs and it discusses what potential technical problems that can be solved in terms of the attributes that the customers who are the pilgrims seek for to facilitate their pilgrimage journey. Also, one of the benefits is that, the information and the interaction in a group often generates deeper and richer information about a certain topic, more than from the one to one interview (Hopkins, 2016). This is helpful in terms of providing insight into scale development for the pilgrim expereince. Furthermore, this method can provide information about a huge range of ideas and feelings simultaneously (Hopkins, 2016). So, this method will be beneficial for this research in terms of providing information about the pilgrim experience in terms of feelings associated with pilgrimage experience and

spirituality and how these feelings and opinions can play a vital role of understanding the self-service phone kiosk usage among pilgrims.

The purpose of the focus group interviews was to build and develop the survey questions, gain insights of pilgrimage experience, needs and priorities in terms of telecommunication services through focus group interview and comprehended the research with what most appealing service to the pilgrim's customers. Also, to have intensive information from people who have experienced hajj or want to go in future. These points would be hard to obtain through other types of studies because the Muslim community considered to be minority in Auckland New Zealand where this study conducted.

3.3.2 Objectives of the Focus Group Interview

The main objective of the focus group interview study is to uncover the pilgrim experience. More specifically, to build a more nauanced understanding for the desired attributes that customers seek when it comes to the usage of self-service phone kiosks during a pilgrim journey. Thus further helping to gain insights into developing the measurement scales for the 'pilgrim experience' construct.

3.3.3 The Focus Group Interview Guide

Since this study is an exploratory assessment and evaluation of the pilgrims' experience and their needs during their visit to the holy areas in Makkah, the questions addressed their insights related to launching a new technology in this area, whether their experience would be improved and how they evaluated this experience. It was also to address which phone kiosk attributes will encourage them to use the phone kiosk. So, the measurement scale for the field survey developed in the focus group interview since the scholars were less discussing this area of study (e.g., the pilgrimage experience and the self-service phone kiosk attributes).

Here are some of the questions that were used in the focus group interview (a copy of the interview guide included in Appendix B), in terms of the opening questions, the researcher asked the participants some warmup questions. For example:

1) Have you ever been to Makkah or AL Madinah?

2) What was the purpose of your visit? Was it in the hajj or umrah season?

Then, the researcher dug deeper with the main questions, for instance:

1) As you remember or recall your last visit, is there anything that you feel needs improvement?

2) What do you think about regarding telecommunication services?

After that, the researcher asked the participants direct questions about the self-service phone kiosk and whether this consider a right solution for issues pilgrims confront with during their pilgrimage or visit. For example, in terms of these questions:

1) I would like to hear more of your thoughts and opinions about the phone kiosk. Can you tell me about how you came to know the phone kiosk service?

   Also, questions about the reputation of the self-service phone kiosk:

1) Do you know anyone who has used the phone kiosk? What was his or her experience? Will you consider using the phone kiosk the next time you travel there? Please explain.

The interviews ended up with the following questions:

1) Could you please share with me the first thought on the self-service phone kiosk?

   2) Does this sound like something people might be interested in? Can you tell me more?

   3) If a pilgrim wanted to use the phone kiosk, what are some of the things that might make it challenging for him or her to do so?

   4) What are some of the things that might make it easy for him or her to use the phone kiosk service?

3.3.4 Sampling Plan and Focus Group Sites

Two focus group interviews were conducted. Each focus group consisted of eight to ten users and non-users of the phone kiosks from the pilgrims or visitors of the grand Makkah holy mosque. This study included Muslims only who have visited the holy areas of Makkah. The first focus group interview was held at the AUT university city campus with student participants who have visited the holy mosque of Makkah and the discussion was in Arabic since all of the participants were Arabic speakers. The duration of this session was around half an hour from 11:15 am to 12:05 pm. However, the second session was in an Islamic primary school in Auckland, Mangere and the discussion was in English since all of the participants were non-Arabic speakers. The duration of this session took place for an hour from 3:30 pm to 4:30 pm.

3.3.5 Procedures of the Focus Group Interview

After the researcher obtained the ethics application that was approved by the AUT University Ethics Committee, the invitation poster was sent to the participants' email since they are recruited through the researcher's personal network and both of the focus group interview sessions were in New Zealand. Then, after explaining the method of the study to the participants and after the participants had received an overview of the study topic and objectives, they gave consent forms (see the Appendix D for the consent form and C for participant information sheet) to read and sign. Then, the researcher led the discussion without influencing the respondent's opinions or attitude towards any of the questions by driving them to discuss a specific point, while ensured that they would discuss the main topic and objectives within the main context. At the end of the focus group each of the participants received a gift voucher and the researcher thanked them for their participation and confirmed if there were any comments they wanted to add they were welcome to approach the researcher directly or through email.

3.3.6 Analysis of the Interview Data

The content analysis is an approach that is highly used in the analysis of written, verbal or visual communication messages (Stemler, 2015). The history of this method was firstly utilised to analyse newspaper, articles, political speech and so forth in the 19th century (Elo & Kyngäs, 2008). Nowadays, it has a long history in relation to the qualitative method from communication, journalism, anthropology and business (Elo & Kyngäs, 2008).

Content analysis that was used to analyse the results of the focus group interviews, was useful for a number of reasons. First, it is to trigger each word and find the meaning behind it and discover the attributes of the self-service phone kiosk usage among the pilgrim segment. Second, this kind of analysis allows the researcher to use the unit of analysis as a great way to discover and explore a great number of objectives in a study. This type of analysis is commonly based on the data from the narratives and observations, and it requires co-operation between the researcher and the participants (Neuendorf, 2016). For example, this type of analysis is based on texts or is based on diaries that most of the time contains multiple meanings and there are many different interpretations of a certain text or diary. Also, without collaboration between both sides of the discussion, the research will remain misunderstood which tends to weaken the research to a considerable degree (Stemler, 2015).

This research will follow the steps of content analysis, which begin with the unit of analysis that refers to a variety of objects related to the research, for instance, a person, an organisation, a classroom or a clinic, an idea or a notion of a topic (Graneheim & Lundman, 2004). Some authors stated that the unit of analysis can be a section of an interview or a diary and how the researcher allocates this under a topic and integrates it in a study (Elo & Kyngäs, 2008). However, some authors suggested that the whole transcript of an interview or diary can be included in a study (Graneheim & Lundman, 2004). Additionally, the next step is the

meaning of unit. So, it can be seen that this means it is a part of a text that can be abstracted and coded to uncover the meaning related to the study topic. According to Neuendorf (2016) it's a constellation of words or statements that relate to the main topic of a study and they referred to it as a content unit or coding unit. Then, this is followed by condensing phrases, paragraph or a section of a text, and this process involves shortening it while at the same time preserving the core of the study objectives. Then, the last step for the content analysis process is to create the codes that work to label the condensed meaning unit with a code. One of the benefits of this step in the process that allows the data to be thought about deeply and differentiated in several ways (Elo & Kyngäs, 2008). The analysis of focus group interview data adopts the manifest analysis, which is a surface structure when a researcher is looking for what has been said in the interview transcript, that is considered a type of the content analysis (Mayring, 2004). After following the steps of content analyses the researcher begin to label each theme for the pilgrim experience and the self-service attributes with comparing, articulating and compromising between these codes and the past literature objectives and previous measurement scale in order to minimise it into several codes or themes to use it in the model. For example, in the pilgrim experience scale the use of the scale came directly from the focus group interview and most appropriate words describing the pilgrim experience was condensed in a unit. Following that, each unit has several codes these codes some are declined some used in the final stage to develop the measurement scale for the field survey.

3.4 Study Two: a Field Survey

3.4.1 The Rational of Utilising this Method

A field survey was chosen over an observation (i.e., as it was the original plan) for several reasons, first, for the benefits this study can derive from the survey. For example, from a field survey the researcher can have more reliable and adequate data compared with the other types of study methodology such as observation or online survey (Hair, Sarstedt, Hopkins & Kuppelwieser, 2014). The use of field survey is to capture the first reaction after using the self-service phone kiosk which is hard to be gained through online survey as the mindset would be in different mode or uncapable to recall the experience. Second, the outcomes of this study determined that the researcher ought to apply a field survey rather than other method of data collection as the intention of repeat usage of the phone kiosk is hard to measure by observing users interacting with the kiosk alone, or an online survey, for instance. Also, there are some difficulty to use any other types of study because of the researcher needs to collect the data efficiently in a short

timeframe as she was only able to stay in Makkah for a few weeks so utilising a field survey was indispensable rather than observation since observation would have consumed more time to collect the data. In addition, observation would not have answered all the variables this study looks at and considers and it would rely heavily on the researcher expectation rather than the customer experience due to less contact with customers directly. Also, an online survey was hard to utilise because this research wanted to approach the users directly, since the aim of this research is to highlight the usage of self-service phone kiosk from different backgrounds and ethnicity and that would have been hard to control through online survey especially for pilgrims and visitors of the holy mosque. Over a field survey the researcher can collect data in a short time as the general ethics awareness would make respondents rejection of participation harder than an online survey.

3.4.2 Objectives of the Survey Study

The survey study aims at examining the following objectives:

1) This study will test the influence of self-service phone kiosk attributes on the pilgrim satisfaction encounter with this service.

2) This study will examine the self-service phone kiosk attributes (i.e., functionality, security, accessibility, customisation and design) amongst the pilgrims.

3) To test the impact of satisfaction encounter of self-service phone kiosk on the continued usage intention of this service amongst pilgrims.

4) The study will ascertain whether pilgrim experience influence the continued usage intention of self-service phone kiosk.

3.4.3 Measurement and Pre-Test

Whilst the measurement scale has been developed by reviewing a huge amount of literature related to the self-service phone kiosk attributes, there are still some variables that have been mentioned infrequently or have never been discussed in the previous literature which put some pressure on the researcher to discover them. These variables namely, the pilgrims experience which is illuminated through some points from some of the historical, anthropology and tourism literature (Stausberg, 2014), although, the main insights are derived from the focus group. Consequently, an exploratory attempt was made to construct a reasonable measurement scale that depends on the results of the focus group about the pilgrim's experiences (see Table 4.2). However, the self-service phone kiosk attributes among this segment were adopted from the marketing literature review, the insight of these preferable attributes came from the focus group interviews.

The survey instrument was a four-page questionnaire that comprises four major sections containing a total of 86 items (mostly close-ended questions) to capture the exogenous and endogenous constructs proposed in the model, and the demographic information. The questionnaire was translated from English into the Arabic languages using the back-to-back translation method. Both languages were distributed to capture not only Arabic pilgrim but also the non-Arabic pilgrims were reciruted. It was necessary for the translation to be carried out given that respondents are generally more comfortable reading the language that they can understand better, and it also led to the improvement of the response rate. Therefore, the translated version was first assessed by the researcher as Arabic, since that is her native language, and then it was sent to a translation center to ensure the Arabic version matched the English one precisely (The English and Arabic final questionnaires are presented in Appendix F and G).

Therefore, each variable will have several sets of measures that are required for this study containing the self-service phone kiosk attributes as well as the functionality attribute of self-service phone kiosk adopted from Chang et al., 2016, the security of attribute of the self-service phone kiosk usage adopted from Chang et al., 2016. Accessibility attribute of self-service phone kiosk usage adopted from Collier, Moore, Horky & Moore, 2015, customisation was developed from Chang et al., 2016 then, design attribute of self-service phone kiosk usage adopted from Chang et al., 2016. It also includes the independent variable which is the satisfaction encounter of self-service phone kiosk usage adopted from Chih-Hung Wang, 2012. Finally it includes the dependent variable or the behavioural outcome continued usage intention adopted from Jia, Wang, Ge, Shi & Yao, 2012; Chih-Hung Wang, 2012; Hellier, Geursen, Carr & Rickard, 2003. The measurement table below presents the items statements and the source of each item statement.

Table 3. 1. *Measurement Scales Information*

Construct	Item statement	References
Functionality (FN)	FN1 The self-service phone kiosk that I use has a clear and easy to follow instructions FN2 I can get my service done smoothly with the self-service phone kiosk FN3 I can complete my transaction in a short time using the self-service phone kiosk FN4 The service process of the self-service phone kiosk that I use is smooth	Chang et al. (2016)
Accessibility (ACC)	ACC1 It is convenient to reach the self-service phone kiosk ACC2 The location of self-service phone kiosk allows me to initiate a transaction easily ACC3 A convenient location makes me feel more comfortable using a self-service phone kiosk ACC4 I can easily access the location of the self-service phone kiosk	Collier, Moore, Horky & Moore (2015)
Security(SEC)	SEC1 I believe my personal information would be treated confidentially	Chang et al.

	when using the self-service phone kiosk	(2016)
	SEC2 I feel secure supplying relevant information when using the self-service phone kiosk	
	SEC3 I feel safe in regard to my transactions with the self-service phone kiosk	
	SEC4 The self-service phone kiosk provides a safe transaction experience	
	SEC5 Overall, using the self-service phone kiosk is safe	
Customization (CU)	CU1 The self-service phone kiosk addresses my specific needs	Chang et al. (2016)
	CU2 The self-service phone kiosk has features that are personalized for me	
	CU3 The self-service phone kiosk provides customized services	
Design (DS)	DS1 The layout of the self-service phone kiosk is aesthetically appealing	Chang et al. (2016)
	DS2 The self-service phone kiosk appears to use up-to-date technology	
	DS3 The icons on the display is easily recognizable	
	DS4 The icons on the display appear familiar	
Self-service pone kiosk Encounter Satisfaction (SAT)	SAT1 Overall, I am satisfied with the self-service phone kiosk	Wang (2012) *Michael Chih-Hung Wang
	SAT2 The self-service phone kiosk exceeds my expectations	
	SAT3 The self-service phone kiosk performs exactly as I need	
Continued Usage Intention (CINT)	CINT1 I intend to continue using this self-service phone kiosk for transactions in the future	Wang (2012) *Michael Chih-Hung Wang: Jia, Wang, Ge, Shi & Yao, 2012; Hellier, Geursen, Carr &
	CINT2 I will keep using this self-service phone kiosk in the future	
	CINT3 It is likely that I will use this self-service phone kiosk again	

		Rickard, 2003

A pilot study is useful to ensure that every scale measures each variable well and this covered around 20 respondents who represent the 400 which was the actual number of the target respondents and this is considered as a beneficial step to consider any changes, if necessary, before adopting the scale (Kim, 2011). The pilot study was carried out to manage the problems many past studies have had and to develop and test the adequacy of the research instruments. In addition, it can assess the feasibility of a full study. It can also allow the researcher to redesign and test the questionnaire especially for a large study, to also help determine the sample size. Alongside these benefits it can also train the researcher and his/her assistant about the way to collect the data (Althubaiti, 2016), the researcher realised improvement in terms of approaching the thesis sample and the appropriate time approaching them. Then, according to several past studies, a seven point likert scale is recommended to overcome the validation problems after analysis of the study, so, the seven point likert scale was used in this study (Lang, Lievens, De Fruyt, Zettler & Tackett, 2019). The main adjustment made after this phase was deleting some items and condensing them down to shorten the questionnaire as the participants complained about the length of the questionnaire.

3.4.4 Common Method Variance

A self-report from the users is a problem many past researchers have been confronted with in the data collection that utilised a questionnaire, and this is normally considered as a limitation of a research. Notably a significant problem with self-reports from users can be unstable correlations, particularly with data measured at one point in time (Organ & Ryan, 1995).

So, in order to mitigate this problem, the current study took a few cautionary steps. For instance, to minimise any ambiguity the measurement items were worded clearly (Podsakoff , MacKenzie, Lee, & Podsakoff, 2003). In addition, effort was put forth to ensure that the instruments used exhibited both reliability and validity, following the recommendation of Whitman and Woszczynski (2004). During the process of gathering the data, maximizing the response rate and minimizing the missing data within the sample was taken into consideration (Roth, Campion & Jones 1996). Finally, the confirmatory factor analysis (CFA) was applied, to test for the common method variance, to be able to test the problem in the research model and take action accordingly (Cote & Buckley, 1987).

3.4.4 Sampling Plan

In order to cover a larger population the researcher aims to approach around 400 participants mostly visitors or pilgrims and users of the self-service phone kiosk at the sacred Grand Makkah mosque. The large number of participants for this research was selected according to the past recommendation of the literature, to ensure statistical power and whenever the sample size is widened the standard deviation of the means decreases (Lan & Lian, 2010). A sample size under 200 would be too small for a model with over ten variables as it would lead to unstable parameter estimates and poor power in terms of the significance test. Bentler and Chou (1987) recommended at least five cases per parameter estimate (including error terms and path coefficients). Although the estimate of the exact number of parameter depends on the findings from the focus group interviews as it relates to the nature of the self-service phone kiosk attributes, it is estimated that the proposed model will have fewer than 20 paths and hence at least 200 responses would be necessary. Therefore, the target sample size was 400 participants.

The range of participant's age is from 20 to over 60 and from both genders in order to understand more about technology problems from people of different age groups and to learn from them how to tackle the problems. Also, there was an attempt to recruit as much as we could from foreign respondents as the local users accustomed to visiting these places and do not require the telecommunication services that much as compared to visitors.

3.4.5 Procedure of the Survey

After this study received ethical approval (see Appendix A) from the Ethics Committee of the Auckland University of Technology the researcher pre-tested the survey to make any last amendments to the measurement scale if necessary. Then, the researcher booked a flight to the site of the data collection from Makkah around the holy mosque which is located in Saudi Arabia, specifically in the stores of STC (i.e., one of the companies leaders of the telecommunication service in Saudi Arabia). The participants were approached after using the phone kiosks in the STC stores. Each participant was given the survey application to fill out and once s/he completed the survey this was considered as consent to be a part of the study. Also, there were more attention paid to operationalise the non-local user through speaking to them in English as an international language that we assumed most people know and gave them the English version of the survey (see Appendix F). The researcher's assistants were her siblings (two males and a female) and they helped to collect as many survey applications as they could. Although, there was an attempt to have as many filled survey as we could, some users were politely refused to do so. The process of collecting data was follow a timetable and a there was a specific number of survey should be collected daily, so, that the target sample size can be achieved according to this timetable and within the timeframe.

3.4.6 Data Analysis

Structural equation modelling was used to analyse the data. Generally, the use of the SEM technique requires a larger sample (Byrne, 2001). Several factors affecting the required sample size for SEM include the multivariate distribution of data, the estimation technique, model complexity, missing data, and the average error variance of indicators (Hair, Anderson, Babin & Black, 2006). Also, an exploratory factor analysis (EFA) was used to determine which items may need to be dropped prior to moving further to other parts of the analysis. The Cronbach's alpha reliability test is used as the metric for the reliability evaluation (Koufteros & Marcoulides, 2006). A confirmatory factor analysis (CFA) was also used to test the goodness of fit of the research variables and ensure more clarity in terms of the variables in the following step (Gerbing and Anderson, 1988). Finally, as mentioned previously, the SEM test was utilised to confirm the findings from the previous test and to add more credibility to the final model.

3.5 Research Ethics

It is critical to address the ethical approval of this research. This research was granted ethical approval (see Appendix A) from Auckland University of Technology's Ethic Committee (AUTEC) to ensure that the process of collecting the data was authorised and to prevent any ethics problems that the researcher might face. In the focus group interviews the researcher assured the participants that their participation was strictly voluntary and that they were not under any obligation to consent to the interview. Also, the interviewer stated clearly that there would not be any sensitive questions regarding the participant's personal matters since the research only focused on the respondents'opinion about their perceptions of their pilgrim

experience and their attitude toward the self-service phone kiosk and its availibility at the Makkah holy sites for more information see Appendix C for the focus group participants information sheet. A consent form distributed to each interviewee was to be obtained in writing including their names and contact details and it was assured to be shredded after the completion of this research (see Appendix D for focus group consent form). The timing, as well as the location of the interviews, was selected based on the availability of the interviewees.

As for the field survey, the questionnaires were manually distributed only after the ethical applications had been approved. Also, since this research focused only on the perceptions of the participants there was a very low risk of any physical or psychological incident that might caus harm to the participants. Stress and inconvenience issues also had a low effect on the participants as the topic the researcher was interested in was not related to their personality and no judgement was made on anything related to any personal matter. The only foreseeable risk for the survey was the time needed from the participants to complete the questionnaires.

Furthermore, the researcher can speak English and Arabic which eased the way of approaching the participants and prevented any misunderstandings that may have occurred during their participation. Also, the researcher and her assistants assured the participants that their participation was strictly voluntary and that they could withdraw from completing their research questionnaire prior to the completion of the questionnaire. The confidentiality of the data was managed and a statement that referred to this was highlighted at the top of the questionnaire (see Appendix F and G for the English and Arabic questionnaire). The researcher's contact details were provided to the participants for further enquiry. The researcher also emphasised that she approached the participants around the sacred mosque of

Makkah and invited them to complete the survey and as the researcher is originally from Saudi Arabia she was well aware of the best time to approach participants, for example,as it should be not in a rush time for praying.

Chapter 4: Findings

4.1 Introduction

While the previous chapter presented the study method of this research, this chapter presents the results of both studies conducted in this research. First, the focus group interview and then, the survey study. For the focus group interview, content analysis has been used to analyse the interview data through a simple process that contains the following steps: unit of analysis, meaning of unit, coding unit, condense phrases, coding or labelling each meaning in the study. The analysis of focus group interview data adopts the manifest analysis, which is a surface structure when a researcher is looking for what has been said in the interview transcript (Mayring, 2004). The scale developed through this study presented in this chapter with relation to the findings of the focus group interviews. The survey study has been analysed through statistical analyses. First, the descriptive statistical data mainly the respondent characteristics is included. Following this, the exploratory measurement assessment, including the scale reliability test, corrected item-total correlations and exploratory factor analyses are discussed in relation to the key constructs of the study. Next, the measurement assessment of the confirmatory factor analysis presented, which includes the assessment of the fit and uni-dimensionality of the measurement model, and the construct validity. Last, the full structural model testing using the structural equation modelling (SEM) technique presented.

4.2. Focus Group Interview

This section consists of several sections begins with the participants demographic characteristics. That followed by the analysis of these interviews.

4.3. Participants Characteristics

In the two focus group sessions the total participants were 14, this number predominant by female participants due to the cultural and religious customs and traditions. The Saudi and Fijian and Pakistanis participants were participated in both sessions. The aim of the focus group interviews is to uncover the pilgrim experience and self-service phone kiosk attributes it was necessary to ask whether the participants have visited Makkah and the purpose of the visit was pilgrimage or visit (i.e., Umrah) to know how much are they familiar with the place.

Table 4.1 *The Participants Characteristics*

Demographic characteristics	profile	frequency	percentage
Age group	20-30	3	21.4
	30-40	4	28.5
	40-50	5	35.7
	50-60	3	21.4
Gender	Male	0	0
	Female	14	100
Nationality	Saudi Arabian	7	50.0
	Fijian	5	35.7
	Pakistanis	2	14.2
Have visited Makkah? Or pilgrim	Visited	8	57.1
	Pilgrims	6	42.8

4.4. Results for the Focus Group Interviews

There are two main objectives for the conduct of the focus group interviews: 1) to explore the theoretical aspects of pilgrimage with an aim to develop an initial measurement for the concept of pilgrim experience, and 2) to identify the self-service phone kiosks attributes that are relevant in the context of pilgrimage. Table 4.2 shows the content analysis outcomes of both the focus group interviews.

Table 4. 2 *The Pilgrim Experience*

Quote	Category
Elham stated: my own experience depended on the time of the year and season, as the visitors usually come during the seasons of hajj and umrah and I chose the off-season time to make my visit more joyful and spiritual.	Spirituality
1) The spirituality and the feeling of connection with Allah would disappear because of the apprehensive of getting lost or my partner or one of my family members, so, I recently decided to go by myself to evoke these feelings. 2) From my viewpoint, I would ask for more legalization of phone usage inside the holy mosque, since this would decrease the amount of noise and add more tranquillity and enhance spirituality.	Enhancing spirituality
I always associate the feelings of tranquillity and spirituality with quiet and peaceful places similar to the holy mosque of Makkah or AL Madinah.	Association of spirituality and tranquillity
Honestly, with all my heart I was wanting to stay there forever after what I felt spiritual, I felt comforted, it was dreamy for me.	Place attachment
As for me, my experience was satisfying and the feelings I felt during my pilgrimage, it was the first time I felt this way, it was spiritual and convenient.	Spiritual and convenient
1) I have read about it, but it wasn't the same as feeling it, it was something I can't describe it was magical. 2) It was the very best feeling	Rewarding experience
It was the very best feeling, performing Umrah and praying in front of Kaabah, the ritual was so good, I felt like I connected with Allah.	Fulfilment of religious obligations

On my journey I got separated from my partner and I didn't worry at all, I felt like we are in the same boat and we're all Muslims helping each other, which relieved me, the brotherhood and unity feeling with those who actually are my brothers and sisters in Islam, it was something I'm speechless to describe it, we are all equal.	Brotherhood and unity Sense of authenticity
When we were on a trip from Makkah to AlMadinah, it was four hours on the highway and the feelings we had were unbelievable, we were so happy even though it was tiring and tedious we were happy, no one was complaining at all, it was a spiritual and relaxing trip,	Improving Spiritual well-being
I consider this journey to be the starting point in my life and now I can return to be a pure person without any sins.	Pilgrimage and visit experience association with mental well-being and happiness
Regarding my worship I developed it to pay my full attention to it and focus to do it the right way as we are told in the Alquran or Alsunnah.	1) Pilgrimage reflection in visitors and pilgrims daily life 2) Pilgrimage and visit experience association with mental well-being and happiness

Table 4.2 illustrates several quotes describing the pilgrim's experience and some feelings they associate the pilgrimage journey with, such as spirituality, tranquillity, purity, and place attachment. In the first quote, the participant allowed an enormous priority to spirituality, as she stated that she often looked for the off-season time at the holy place because she wanted to visit then since it would be much more spiritual and she could pay more attention to her worship. This indicates that the worship and spirituality aspects during the pilgrimage are important for visitors and pilgrims want to fulfill and it is the most important aspect visitors

and pilgrims seek as well. Enhancing spirituality is a quote selected based on one of the participant's responses, who was concerned about the way of maintaining the spiritual feeling during their visit. She decided while she was visiting the holy mosque to go by herself to maintain the spirituality feeling so she would not be distracted by different things or get lost or spend too much time talking with her companion and so forth. Moreover, another interviewee claimed for more legalisation related to the phone usage inside the holy mosque as that may present some distractions and noise problems for the worshippers and it may not have been advantageous in terms of the results that people sought for more tranquillity and spirituality. From these quotes, the item 'Coming to this holy place will improve my spiritual development' was developed to capture the priority of spirituality element felt amongst pilgrims.

Some participants emphasised that they always associate spirituality and tranquillity with peace and quietness in a place, such as the holy mosques, specifically the grand Makkah or Almadinah "i.e., where the second holy mosque of Muslims is located", reflecting their preferences for the features of the place of worship. This feeling of place attachment has an association with the tranquillity and spirituality feelings. For example, one of the participants stated that she felt after her journey that she would have loved to have been able to stay in Makkah for the rest of her life due to the emotions and spirituality she associated with during her pilgrimage journey. Therefore, the item 'The atmosphere of this holy place is very pleasant' was developed. The feeling of relaxed and comfortable expressed by the participants during the visit has led to the development of the item 'This pilgrim experience made me feel relaxed and comfortable'.

The next quote was from a lady who was speechless to describe the feelings and emotions she experienced during her pilgrimage journey and she stated "I have read about it

but it wasn't the same as feeling it" and she used the word magical to describe her experience. This rewarding aspect of pilgrimage journey was common among the participants. Hence, the item 'Overall, my experience during this pilgrim visit is rewarding' was developed to capture this experience. On the same point, one of the participants described her journey as "the best feeling,." Then, a participant counted the Islamic rituals she performed during her journey, as Umrah, praying in the front of Kaabah and she was happy to fulfil her worship. Based on this response, the item 'I am delighted being at this holy place to fulfil my religious obligation' was developed to capture the satisfaction and inner happiness of fulfilment of the Islamic faith worship.

Moving on, a participant gave an example of a situation she experienced during her pilgrimage, and she explained what she felt in a situation occurred while she got separated from her family. She emphasised that she wasn't worried about that at all because she indicated that she felt all pilgrims were in the same boat. Besides that, she explained that Muslims have some sort of relationship in Islam, where they regard each other as sisters and brothers. This unites them and they build a brotherhood relationship, this indicated that improving her spirituality feelings and connection with God as this feeling of brotherhood or sisterhood and unity as Muslims likely seems to be the first time she felt. Thus, the items 'My visit to this sacred site enables me to obtain spiritual improvement' and 'This trip gives me a sense of authenticity' were developed. In terms of relaxation, a participant pointed out that when she was on a trip to Almadinah and although the trip was tiring and she was fatigued, she felt happy and spiritual since this was a historical journey for her. This response was taken into consideration in building this item 'I feel that this visit fulfils my spiritual well-being needs' in the scale of the pilgrim experience.

Furthermore, one of the participants found that the pilgrimage journey represents a journey that allowed her to purify herself from her sins and it served as a starting point so she could begin to have a much more joyful life with a stronger connection with Allah. The happiness and joyful life may enhance the mental well-being of the pilgrims. The following items attempted to capture the influence of spirituality on mental well-being and happiness 'I feel that this visit fulfils my mental well-being needs' and 'I believe pilgrimage creates feelings of peace and happiness'. In another quote, an interviewee described how her pilgrimage journey reflected on her life that she began to pay much more attention in terms of the way she is performing her worship and the way she went about her daily life as well. This answer assisted in adopting this item 'I feel refreshed in body, mind, and spirit by my pilgrim experiences'. A table of the scale development of the pilgrim experience presented in the table below with a reference of the categories that adopted from.

Table 4. 3 *The Pilgrim Experience Scale Development Based on The Focus Group Interviews Outcomes*

Category	Pilgrim experience items
Rewarding experience	Overall, my experience during this pilgrim visit is rewarding
Enhancing spirituality	Coming to this holy place will improve my spiritual development
Brotherhood, unity	My visit to this sacred site enables me to obtain spiritual improvement
1) Association of spirituality and tranquillity 2) Place attachment	The atmosphere of this holy place is very pleasant
Fulfilment of religious obligations	I am delighted being at this holy place to fulfil my religious obligation
Spiritual and convenient	This pilgrim experience made me feel relaxed and comfortable
Improving Spiritual well-being	I feel that this visit fulfils my spiritual well-being needs
Pilgrimage and visit experience association with mental well-being and happiness	I feel that this visit fulfils my mental well-being needs
Sense of authenticity	This trip gives me a sense of authenticity
1) Pilgrimage and visit experience association with mental well-being and happiness 2) Pilgrimage reflection in visitors and pilgrims daily life	I feel refreshed in body, mind, and spirit by my pilgrim experiences
Pilgrimage and visit experience association with mental well-being and happiness	I believe pilgrimage creates feelings of peace and happiness

Table 4.4 presents the analyses to address the second objective of the focus group interviews which is to explore the participants' preferred attributes of self-service phone kiosks.

Table 4.4 *The Self-Service Phone Kiosks Attributes*

Quote	Category
To serve the pilgrims well they begin to learn different languages and most of them become bilingual or trilingual and they would consider this as an element that would help foreign pilgrims or non-Arabic speakers.	Facilitation
In terms of the complexity of using self-service technology, they compared it with the service at the bank ATM machines and at the grocery store retailers.	Preceived complexity
I believe the use of self- service phone kiosk sometimes could be more accurate and make the customers more independent in terms of delivering the services by themselves as they are the ones who know better than anyone what they need.	Functionality And customisation
self service are very important now for our lifestyle and the fast mode of our routine.	Priority of Self- service technology
That is because this service saves time and effort and because all of the options are available to the customer to select and be precise and accurate towards what s/he wants and it's in the front of customers eyes and s/he can read and understand and then select from the options.	Time Saving Accuracy
I emphasise that although the usage of self-service is quite easy and reliable, I wish my personal information would be secure as well	Easy use Reliabe
I suggest a managerial solution to avoid delay or avoidance self- service phone kiosk usage, such as, make the self- service phone kiosk design familiar for the customers in terms of the icons, instructions and pics that are used in the self- service phone kiosk interfaces.	Familirity Design
I'd say that the self-service phone kiosk gives me the opportunity to read the options and select the most suitable option, and I may change my mind according to what I read or see, this is considered as a benefit so using this alternative service rather than the traditional way suits me better since employees do not always give me the options if I don't ask for them and I prefer not to waste their time in educating me about the various options.	Precise and aacurate service
And I agree with Taghreed that the self- service phone kiosk icons, pics and all of the	Functionality

instructions must be clear and concise so there is no confusion for the customer.	Design
I reckon that if the customer felt that if what they were doing was complex or unclear in regard to ordering from the self-service phone kiosk interfaces, it would increase the time and effort customers spent using the self-service phone kiosk and so these innovative machines would not meet the needs they were designed to solve.	Saving time Functionality
So, I'd suggest if the self-service phone kiosk interfaces would be more basic and were less complicated to make more customers able to use it	Design
and what a useful tool instead of queuing in long queues this would definitely be a beneficial alternative, and if it is in a handy location as well, I would not need to use the map to search for it.	Convenience Accessiblity Functionality
I guess we took the location of the services for granted, because it is already in accessible place. Also, all the services that serve pilgrims should be holy mosque zone area otherwise the transportation issues would be increased	Accessibilty
Wow!!!!!!! this technology is so easy and convenient, and it saves time and effort for visitors and they can control the service and deliver it by themselves, it is also just outside the holy mosque. I use something like it in Hong Kong, we top up our phone data and it's very easy and handy.	Ease of use Functionality Accessible
I see usually the instructions that are provided around or beside the self-service technologies to facilitate the usage of self-service technologies.	Facilitation

Note: Although the scale developed to test the self-service phone kiosk attributes is adopted from the past literature, the focus group interviews helped in determining the main attributes that pilgrims are mostly interested in. So, Perceived complexity attribute helped in confirming the design attribute and it has been joined under one attribute which is the design attribute.

In this section, the researcher analysed the preference of self-service phone kiosk amongst the respondents and what would determine their decision to consume the telecommunication service.

In the first quote, the participants discussed the role of communications services that are provided, and they emphasised that bilingual employees are the most beneficial service that would help the pilgrims during their pilgrimage journey as they referred to the other

services provided this option to customers. Then, the participants compared the self-service interfaces in different service places, the feature they were most afraid of was the complexity in using the self-service machines and they compared them with the service interface in banks and grocery stores. In terms of the functionality and the customisation the service of the self-service phone kiosk, were amongst the first factors that participants prefer, and they stated that if the customers could deliver the service by themselves, it could be much more accurate and precise, because she believed that the customer would know more about the options and maximize the service as much as s/he wanted to. In the following quote, the participant asserted that the self-service phone kiosk saves time and effort for the customers, as they can deliver the service themselves and they do not have to wait for an employee to assist them. In terms of the selection of the option the self-service phone kiosk offers, the participant assumed this would be the most important feature in using self-service phone kiosk as the customer would be assured of what s/he needs and could customise the service as they want to. In another quote, a participant stated that reading the options that are available through the self-service interfaces often gives her an opportunity to select the ones she wanted and she could change her mind accordingly to select what suits her the best and this is what drives her to choose the self-service phone kiosk instead of the traditional method of service delivery. Also, she encountered with a non-friendly service delivery while she was served by an employee, this made her avoid this human interaction.

Moreover, security is one of the most indispensable features that customers are looking for while they are using self-service technologies, one of the interviewees emphasised this point when she said "reliable" and she claimed and wished to have a secure service especially for her personal information. Also, in the same point about functionality one of the participants suggested a managerial solution to deliver self-service phone kiosk that can provide an easy and convenient service for the customers and that from her point of view this could be achieved by offering the majority of users a design they are familiar with it in terms of accessing the service. In other words, the information, the icons, and the instructions provided should be easy to understand and follow, and it will help the customers become familiar with it if it is similar to the different platforms they are already familiar with in different places (e.g., at the airport, at grocery stores and different self-service check out or scanning) and that what the participants agreed about in the next quote.

Moreover, one of the participants agreed that if the customers felt that using the self-service phone kiosk was going to be complicated, they would get more confused and this would result in taking more time and effort, and they would switch directly to another option. One of the interviewees made a suggestion about the acceptable self-service phone kiosk that would be more appealing to customers. She recommended that if it was simple and easy to use those customers who have a basic education will find it easy to use, so if the instructions were simplified for users it would be able to reach a larger customer base. So in relative terms, a participant agreed with this and added that instructions should not require complicated information processing to comprehend them, and it should be clear enough so the less well-educated customers could use it as easily as the customers who are highly educated. On the another hand, an interviewee noticed that written usage instructions and guidelines are often provided beside or around the self- service platforms to facilitate the usage.

Finally, the participants were astonished by the new technological progress after they watched a video explaining the functions of the self-service phone kiosk and how the the self-service phone kiosk performed (i.e., utilising the video was to share the information of how and why using the self-service phone kiosk would be more easier and time efficient tool rather than the essential service. Also, there are some participants have not use it, but they have told that they have seen it and they wonder which service is this and weather it can do its work in less time and effort). One of the participants found it so useful in terms of not having to queue up to obtain a service she needed because this would help her save time, which she could spend in the holy place worshipping. Also, she used the term "handy" when she described the location of the self-service phone kiosk and it is near so that she would not have to use the phone map to find it.

Following this, a participant assumed the location the service located in has been taken for granted and she explained that the services provided to serve pilgrim should be in the holy mosque zone, otherwise the transportation and congestion would be increased. Also, one of the interviewees who had seen the self-service phone kiosk and was interested in this updated technological service that was provided as well as the accessible location where these self-service phone kiosks were located. She was surprised with the performance of the self-service phone kiosk and she explained that its saved time, it was easy to use and customers could also control it, Furthermore she said she had experienced using it during her trip to Hong Kong and it was a good satisfying experience.

Overall, the focus group interviews revealed that functionality, accessibility, security, customisation and design are among the key attributes that may influence the participants' decision to adopt the self-service phone kiosk. As a results, the following dimension are included in the conceptual framework based on the outcome of the both focus group interviews as well as the review of current literature functionality, accessibility, security, customisation and design.

4.5 The Survey Study

The survey contains variables that examine the self-service phone kiosk attributes, self-service phone kiosk encounter satisfaction, self-service phone kiosk continued usage intention, and the pilgrim experience. The analyses conducted include the exploratory factor analysis (EFA), the confirmatory factor analysis (CFA), and the structural equation modelling (SEM).

4.5.1 Response Rate for the Survey

Out of the 400 questionnaires distributed, 285 responses were collected, giving a response rate of 71 percent. Of those returned, 11 questionnaires were discarded for several reasons: (1) incomplete responses; (2) the questionnaire was answered by subjects who did not qualify for participation; (3) there were responses with little variance and (4) the patterns of the responses showed that the respondents did not understand the content and/or the instructions. Consequently, only 274 completed questionnaires were usable for the data analyses.

4.5.2 Respondent Characteristics

The characteristics of the respondents, which included respondents' demographic profiles and the place of living, are presented in the table below.

Table 4.5 **Respondents characteristics**

Demographic Variables	Description	Frequency	Percentage
Gender	Male	96	35.3
	female	178	64.9
Age	20–29	97	35.4
	30–39	34	12.4
	40–49	18	6.5
	50- 59	35	12.7
	60 and above	90	32.8
Education level	High School graduate or below	87	31.7
	Vocational	66	24.0
	university graduate	105	38.3

	Post graduate level	16	5.8
Occupation	Student	71	5.1
	Company employee	63	22.9
	Self-employed	12	4.3
	Professional	36	13.0
	Civil servant	53	19.3
	House wife/ husband	22	8.0
	Retired	14	25.9
	Other	3	1.0
Do you live in Makkah?	Yes	77	28.1
	No	197	71.8

Following the Islamic faith, females should not interact with male strangers. As the researcher is a Muslim female, there was an obvious lack of opportunity to recruite more male respondents. The majority of respondents were young people who belonged to the age group ranging from 20 to 29, and this was followed by the age group of 60 and above. The reason for the larger young sample may be because young people represent the main group of people who are most familiar in terms of high-tech users. The distribution of the respondents in terms of their age group is consistent with the related statistics of pilgrims and visitors to the holy mosque of the grand Makkah *("stats*", 2019). However, it may show some points of fluctuation depending on the season, whether it is Umrah or Hajj. The high response rate from the younger consumers implied that they were more interested in self-service phone kiosk. In terms of education level, the university graduate represented the largest group, and this was followed by the high school graduates and those respondents who did not graduate

from high school, indicating that the employees and workers around the holy mosque may represent a greater number of self- service phone kiosk usage to save time.

The participant's jobs and occupations varied from retirees to students who scored the highest percentage compared with the other participants. Finally, special attention has been paid to recruiting more foreign visitors rather than the local participants as the locals are more accustomed to visiting these places and do not require the telecommunication services that much as compared to visitors. As a result, the percentage of foreigners was higher than the locals recorded at 71.8 percent.

4.6 Exploratory Factor Analyses

To determine the underlying dimensions of the multi-item measurement scale, exploratory factor analyses were performed separately on the self-service attribute and pilgrim experience items. Another purpose for performing the factor analysis was to determine whether the data could be condensed or summarised into a smaller set of factors (Malhotra, 2004). The dimensions of the scale were examined by factor analysing the items using the principal components analysis with Varimax rotation. The minimum eigenvalues of 1.0 helped determine the number of factors or dimensions for each scale (Hair et al., 2006). While factor loadings of 0.30 to 0.40 are considered acceptable, factor loadings greater than 0.50 are generally necessary for practical significance (Hair et al., 2006). Hence, the items for a factor were retained only while the absolute size of their factor loading is above 0.50.

4.6.1 Exploratory Measurement Results

The exploratory measurement assessment includes exploratory factor analyses, item analysis, and coefficient alpha and reliability. Each of the results of the measurement assessments is presented in the following sub-sections. Table 4.6 presents the exploratory analysis results.

Table 4.6 *Factor analysis*

Construct	Scale items	Mean	Std	Factor loading	Cronbach alpha
Functionality	FN 1: The self-service phone kiosk that I use has a clear and easy to follow instructions	6.12	1.07	0.82	0.914
	FN 2: I can get my service done smoothly with the self-service phone kiosk	6.03	1.12	0.82	
	FN 3: I can get my service done smoothly with the self-service phone kiosk	6.07	1.16	0.82	
	FN 4: The service process of the self-service phone kiosk that I use is smooth	6.05	1.15	0.75	
Accessibility	ACC1: It is convenient to reach the self-service phone kiosk	6.12	1.02	0.64	0.889
	ACC2: The location of self-service phone kiosk allows me to initiate a transaction easily	6.01	1.09	0.72	
	ACC3: A convenient location makes me feel more comfortable using a self-service phone kiosk	6.10	1.04	0.80	
	ACC4: I can easily access the location of the self-service phone kiosk	6.07	1.07	0.73	

Security	SEC 1: I believe my personal information would be treated confidentially when using the self-service phone kiosk	6.20	0.96	0.76	0.895
	SEC 2: I feel secure supplying relevant information when using the self-service phone kiosk	6.16	0.95	0.81	
	SEC 3: I feel safe in regard to my transactions with the self-service phone kiosk	6.15	1.01	0.81	
	SEC 4: The self-service phone kiosk provides a safe transaction experience	6.19	0.96	0.82	
	SEC 5: Overall, using the self-service phone kiosk is safe	6.13	0.98	0.79	
Pilgrim experience	PEXp 1: Overall, my experience during this pilgrim visit is rewarding	6.79	0.65	0.82	0.925
	PEXp 2: Coming to this holy place will improve my spiritual development	6.79	0.61	0.81	
	PEXp 3: My visit to this sacred site enables me to obtain spiritual improvement	6.78	0.61	0.84	
	PEXp 4: The atmosphere of this holy place is very pleasant	6.76	0.67	0.85	
	PEXp 5: I am delighted being at this holy place to fulfil my religious obligation	6.83	0.52	0.80	
	PEXp 6: This pilgrim experience made me feel relaxed and comfortable	6.80	0.62	0.87	
	PEXp 7: I feel that this visit fulfils my spiritual well-being needs	6.79	0.58	0.86	

	PEXp 8: I feel that this visit fulfils my mental well-being needs	6.80	0.55	0.75	
	PEXp 9: This trip gives me a sense of authenticity	6.81	0.64	0.82	
	PEXp10: I feel refreshed in body, mind, and spirit by my pilgrim experiences	6.83	0.56	0.83	
	PEXp 11: I believe pilgrimage creates feelings of peace and happiness	6.84	0.52	0.75	
self-service phone kiosk satisfaction encounter	SAT 1: Overall, I am satisfied with the self-service phone kiosk	6.07	1.11	0.92	0.908
	SAT 2:The self-service phone kiosk exceeds my expectations	6.10	1.11	0.92	
	SAT3: The self-service phone kiosk performs exactly as I need	6.06	1.11	0.91	
Continued usage intention	CINT 1: I intend to continued using this self-service phone kiosk for transactions in the future	6.07	1.11	0.92	0.888
	CINT 2: I will keep using this self-service phone kiosk in the future	6.10	1.11	0.92	
	CINT 3: It is likely that I will use this self-service phone kiosk again	6.06	1.11	0.91	

The exploratory factor analyses were performed for the 13 self-service phone kiosk attributes items, and the 11 pilgrim experience items to determine the underlying dimensions of the multi-item measurement scale. The dimensions of the scale were examined by factor analysis through the SPSS 25 software measuring the items using the principal components analysis

with Varimax rotation. The usage of varimax method is useful to maximize the sum variances of the factor loading matrix. The minimum eigenvalues of 1.0 helped to determine the number of factors or dimensions for each scale (Hair et al. 2006). Although factor loadings of 0.30 to 0.40 are considered acceptable, however, factor loadings greater than 0.50 are generally necessary for practical significance (Hair et al. 2006). Hence, the items for a factor were retained only when the absolute size of their factor loading is above 0.50. The Kaiser-Meyer-Olkin (KMO) and Bartlett's test of sphericity were performed, which is a measure of sampling adequacy used to examine the appropriateness of the use of factor analysis (Hair et al. 2006). The KMO value of 0.900 that indicates the use of factor analysis was appropriate (Hair et al., 2006).

Table 4.6 presents the results of exploratory factor analysis with the factor loadings of each of the items. The first construct is the self-service phone kiosk attributes with 13 different factors; each factor has four or five items measuring these attributes.

Overall, each item appeared to belong to the appropriate domains of the self-service attributes, pilgrim experiences, the self-service phone kiosk satisfaction encounter and the continued usage intention of self-service phone kiosk. The scale for self-service attributes of the phone kiosk comprises 13 items. The functionality of the self-service phone kiosk from FN1-FN4, accessibility of the self-service phone kiosk attribute with four items from ACC1 to ACC4 were loaded onto Factor 2, and security from the SEC1-SEC5 loading in factor 3 explaining 75.53% of the total variance. The self-service phone kiosk attributes of customisation and design were dropped due to not loading clearly on either of the self-service phone kiosk attributes. As for the pilgrim experience, it represents 11 items from PXEp 1 to PEXp 11 all loading in factor 1 explaining 67.81%. As for the remaining constructs, the self-

service satisfactions encounter and continued usage intention, all of the associated items were loaded on the intended factor.

4.6.2 Item Analysis and Scale Reliabilities

The reliability test via SPSS was performed to evaluate the reliability of each factor, and the Coefficient alpha (i.e., Cronbach's alpha) is one of the most widely used measures for evaluating the reliability (Koufteros, 1999). The Cronbach's alpha value for each measure is shown in Table 4.6. The reliability value for each construct scored well above the value of 0.75 and the construct self-service phone kiosk attribute functionality was 0.914, then, the accessibility and security were 0.889 and 0.895 respectively. Followed by the pilgrim experience 0.925. The self-service phone kiosk satisfaction encounter was at 0.908 and the continued usage intention of the self-service phone kiosk usage were scored a value at 0.888. These scores are considered satisfactory for simple research (Nunnally, 1978; Litwin, 1995). Nevertheless, reliability analysis has several disadvantages, including the fact that it might be inflated when a scale has a large number of items, and it assumes that all of the measured items have equal reliabilities (Gerbing & Anderson, 1988). Besides, Cronbach's alpha cannot be used to infer uni-dimensionality (Gerbing & Anderson, 1988).

4.7 Measurement Assessment of Confirmatory Factor Analysis

This section shows the measurement scale validation that includes the assessment of fit, uni-dimensionality, and constructs validity of the measurement model. Prior to the analysis, the data were screened for possible out-of-range, outliers, or missing values. Then, the measurement scale at the beginning was tested for reliability and validity, followed by the path model, which was assessed using SEM for hypotheses testing (Anderson and Gerbing,

1988). The CFA was applied to assess and revise the proposed theoretical model and to confirm the EFA results (Hair et al, 2006). Utilising the Amos programme to analyse the confirmatory factor analysis (CFA) to have a concise estimation, this programme can perform CFA and can explain the goodness of fit of the GFA, CFI and the RMSEA mean square. According to Hair et al. (2006), the EFA relates more to exploring the data and providing the researcher with information on how many factors are needed to best represent the data compared the CFA. The CFA relates more to testing how well measured the variables are that represent a smaller number of constructs (Hair et al., 2006).

The present study investigated multiple indices of model fit based on the recommendation of Bollen (1990) and Lu, Lai and Cheng (2007). The need for examination of multiple indices of model fit was necessary because even though a model may present a good fit on a particular fit index it might be inadequate on others. A few indices were selected based on the recommendations of Hu and Bentler (1999), that as chi-square test (X^2), chi-square is normalised by the degrees of freedom (X^2/df), Goodness-of-Fit Index (GFI), Comparative Fit Index (CFI), Tucker-Lewis Index (TLI) and a badness-of-fit index, i.e., the Root Mean Square Error of Approximation (RMSEA).

This study followed some guidelines to determine the goodness-of-fit of the model. Essentially, a lower value of X^2 is considered a better fit of the model. Additionally, the criteria should be met to show that there is a relatively good fit between the hypothesised model and the observed data: X^2/df should be 3.0 and below; GFI, CFI, and TLI should be at least 0.90, and RMSEA should be 0.06 and below (Hu & Bentler, 1999; Hair et al., 2006).

From the data collected of 274 usable questionnaires, the CFA was performed to assess the measurement model fit and the uni-dimensionality. To ensure the validity and reliability of the data, the convergent validity, discriminant validity, and construct reliability

were tested. The construct reliability consists of the composite reliability and the extracted average variance. Then, the structural model that best fit the data was identified. This was followed by hypotheses testing.

4.7.1 Assessment of Fit and Unidimensionality of the Measurement Model

The measurement model illustrates how the observed indicators relate to unobserved constructs (Kline, 2005). The first measurement model comprises six latent constructs, i.e., the functionality of the phone kiosk, the accessibility of the self-service phone kiosk, the security of self-service phone kiosk, the pilgrims experience, and the self-service satisfaction encounter and the self-service phone kiosk continued usage. The first measurement model ran (CFA1) illustrated in the table had a major unfit problem (X^2 = 155.469, X^2/df = 4.628, p-value = 0.000, GFI .874, CFI .936 and RMSAE .115). The absolute goodness-of-fit measures for the measurement models are displayed in Table 4.7.

Table 4.7 *Goodness-of-fit Results for Measurement Model*

Model	Goodness-of-fit Results							Modifying items	Reason for deletion
	X^2	X^2/df	p-value	GFI	TLI	CFI	RMSEA		
CFA1	155.469	4.628	0.000	.874	.933	.936	.115	covaring between PEXp1 and PEXp 2	High correlation
CFA2	155.469	3.702	.0001	.907	.940	.954	.099	PEXp 6 &PEXp 9	Large MI
CFA3	61.656	3.627	.0001	.949	.945	.972	.098	Deleted item CINT1	High correlation

CFA4	143.261	2.349	.0001	.927	.959	.968	.058	Covarying between SEC4 &SEC5	High correlation
CFA5	129.989	2.166	.000	.932	964	.973	.065	Covarying between ACC1 & ACC4	High correlation
CFA6	680.405	2.049	.000	.846	.936	947	.062	Deleted item PXEp9	Large MI
CFA7	607.614	1.986	.000	.866	.942	.949	.062	Deleted item PXEp1	Large MI
CFA 8	603.567	1.902	.000	.871	.955	.960	.055	Covarying between SEC1& SEC3	Large MI
CFA9	516.041	1.863	.000	.873	.951	.958	.056	Deleting SEC1	Large MI
CFA 10	500.233	1.887	.000	.875	.967	.975	.054	Covarying between PEXp4 & PEXp7	Large MI
CFA11	499.834	1.874	.0001	.878	.957	.970	.054	Covarying between PEXp4 & PEXp8	Large MI
CFA12	456.480	1.869	.000	.882	.955	.962	.054	deleting ACC3	Large MI
CFA13	430.957	1.866	.000	.883	.953	.961	.056	Covarying between FN1&FN4	High correlation
CFA14	425.060	1.840	.000	.885	.955	.962	.055	Covarying PEXp2&	High correlatio

								PEXp3	n
CFA15	415.457	1.806	.000	.888	.956	.964	.054	deleting PEXp5	Large MI

As shown in Table 4.7, the normed chi-square (X^2/df) of the original measurement model showed a value which was higher than the acceptable ratio of less than 3.0, as recommended by Hair et al. (2006). Even though the TLI and CFI are incremental fit indices, and these values exceeded the recommended level of 0.90, this was not the main problem. However, RMSEA presented a value which was much higher than the recommended level of 0.06. Furthermore, the GFI was below the recommended level of 0.9, indicating the model fit was not good enough. Therefore, it was apparent that model modifications were still needed to determine a better model that fit the data.

The measurement model was re-examined in terms of the standardised residuals, modification indices (MI), and the standardised loading estimates (Hair, Black, Babin and Anderson, 2010). These measures were investigated together with the model fit indices to ascertain if re-specification was required.

From the test results of the original measurement model, the PEXp1 and PEXp2 of the pilgrim experience were found to be highly correlated with each other. Furthermore, in the exploratory factor analysis, both the PEXp1 and PEXp2 were loaded onto the PEXp factor pilgrim experience. Then, the large MI for the PEXp6 and PEXp9 were determined to delete the PEXp9 to have a more fitting model. After this action, the RMSEA was still higher than the recommended level with .099. Additionally, the next step was taken in order modify the model fit was removing CINT1 "I intend to continued using this self-service phone kiosk for transactions in the future" that caused a large MI, and according to Hair et al. (2006), an

MI of approximately 4 or higher suggests that the fit could be improved significantly by freeing the corresponding path. Hence, this item was further assessed. Then, in the questionnaire, it could have been interpreted wrongly by the respondents as part of the measures of continued usage intention, specifically the item CINT2. Given this, the removal of this item may have improved the accuracy and the reliability of the analysis, and also the model fit as desired. Thus, the CINT1 was removed from the subsequent analysis. Besides, it has been seen that the RMSEA level was still at a high unfit level. The following action performed was covarying the two items, SEC4 & SEC5, as the Amos programme suggested, the results were not satisfying. As the GFI, CFI and TLI level were higher than the acceptable point at .927, .968 and .959, respectively. After that, the results were reviewed to decide whether they should undergo further analysis to improve the model or not. The items ACC1 ("It is convenient to reach the self-service phone kiosk"), and ACC4 ("I can easily access the location of the self-service phone kiosk") appeared parallel as perceived by the respondents. A parallel statement would lead to measuring the same thing, however, both ACC1 and the ACC4 are retained at this point since the accessibility construct contains fewer items in the scale.

The large MI was the reason to delete PEXp9 "This trip gives me a sense of authenticity" in the CFA6. Following the deletion of the PEXp9 the model had met the recommended levels of X^2/df, TLI and CFI, i.e. X^2/df below 3, TLI and CFI above 0.9., which is indicating a good fit model. However, the GFI dropped slightly to 0.8, and the RMSEA level was still above 0.06. Therefore, further investigation was taken aiming to improve the goodness of fit of the measurement model. So, the CFA7 were performed through removing the item PEXp1 as it showed a large MI (MI=23.44) and it has some points of correlation with PEXp2 (MI=19.37), and, after all, the results showed some improvement in the level of

GFI as it rose to .866. However, since this was still lower than the acceptable level Amos programme suggested further estimation for model improvement. In the CFA8, the RMSEA finally dropped to an acceptable point at .055. Also, co-varying between SEC1 and SEC 3 were performed as both items were correlated by (MI=32.90) which as suggested by Amos. one pair of error terms, i.e., one pair for SEC, had high MI values for their covariance. Specifically, the MI values for the covariance between the error items of SEC1 and SEC3 was 35.60. Reviewing the statements of SEC1 and SEC3 (SEC1 – "I believe my personal information would be treated confidentially when using the self-service phone kiosk"; SEC3 – "I feel safe in regard to my transactions with the self-service phone kiosk"), it makes sense that these two statements are associated and it is appropriate to allow their error terms to be linked together. However, in the CFA9 one item showed a need for deleting that is SEC1 due to large MI by (MI=55.43), and the other factor of goodness of fit didn't present a noticeable change.

Based on the same procedure, the next potential candidate for deletion was PEXp4 or PEXp7, due to its large MI as well. A review of the MIs for the regression weights revealed several parameters associated with PEXp7" I feel that this visit fulfils my spiritual well-being needs", such as, PEXp3 (MI=43.778), PEXp8 (MI=22.798), PEXp10 (MI=20.976), PEXp11 (MI=216.095). It indicated substantial misspecification of the hypothesized factor loading. Then, Amos suggested to covary the two items (i.e., PEXp4 and PEXp7) to improve the goodness of fit model, especially the GFI results as it's the only index that still represented a low fit amongst the other indices with .875. The chi-square value increased substantially from the initial value of 155.469 to 499.834. The X^2/df decreased from 4.628 to1.804. Both revised values indicated a better fit of the measurement model. The fit indices for TLI and CFI were greater than the 0.9 threshold for acceptability. Although the value of GFI was below 0.9, it was also closer to the 0.9 threshold. Also, the RMSEA value was in an acceptable range, and

it was considered to be a good fit according to Hair et al. (2010), with a value of 0.05. It can be seen that the GFI represents higher degree of an unfit model, so we were determined to follow with trying to have a good model fit and decrease the issues that may have occurred in the model later. In the CFA11, the covarying between PEXp4 & PEXp8 due to high correlation, made a slight improvement in the model fit as the Chi-square turned to 499.834 and there was a small change in the model fit values as the GFI .878, TLI .957, CFI .970, and RMSEA .054. Thus, the CFA12 was undertaken to improve the model, so the values for this model were the chi-square 456.480, GFI .882, TLI .955, CFI .962, RMSEA .054, the main problem is the GFI, so that needs further action to solve it. Deleting the item ACC3 "A convenient location makes me feel more comfortable using a self-service phone kiosk" was the case of this action to improve the model fit. Then, the CFA13 was performed, and the values were the Chi-square 430.957, GFI .883, TLI .953, CFI .961, RMSEA .056, and even though these values were indicated to be acceptable, the GFI needs more work. Therefore, CFA14 was performed after Covarying between FN1&FN4 and the values 425.060 for the Chi-square and as for GFI .885, TLI .955, CFI .962 and RMSEA .055. Deleting another item was necessary to obtain a much better goodness of fit than the previous steps, and once deleting the PEXp5 "I am delighted being at this holy place to fulfil my religious obligation" the model improved in terms of GFI .888, TLI .956, CFI .964, RMSEA .054 and the Chi-square 415.457.

After six items (CINT1, PEXp1, PEXp9, SEC1, ACC3 and PEXp5) were dropped from the original model and covarying took place between several items (PEXp1 and PEXp2; PEXp6 and PEXp9; PEXp4 and PEXp7; SEC4 and SEC5; SEC1 and SEC3; ACC1 and ACC4; PEXp4 and PEXp7; PEXp4 and PEXp8; FN1and FN4; PEXp2 and PEXp3) the final

model was estimated after all the necessary modifications were completed and the fit indices improved (see Figure 4.1).
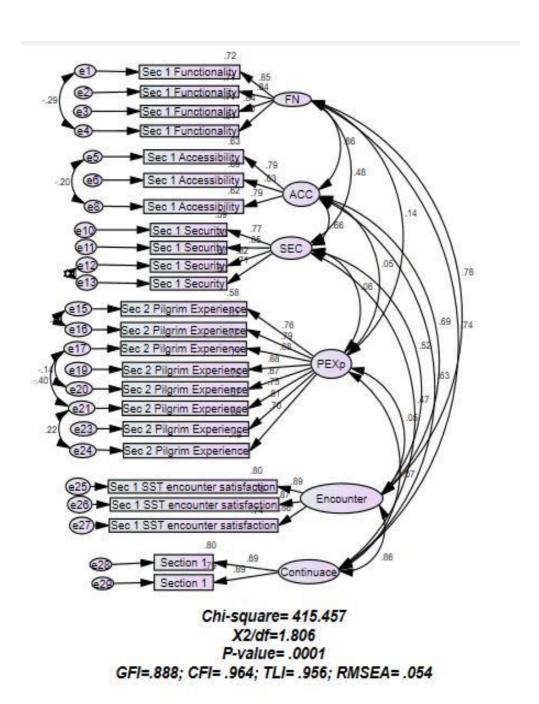

Figure **4.1 CFA Results Model**

4.7.2 Construct Validity

The present study adopted Straub's (1989) measurement validation procedures to test the construct validity, which consists of convergent validity and discriminant validity. The composite reliability of the data was also assessed prior to the structural model testing.

4.7.3 Convergent Validity

Convergent validity can be examined by the loadings and their statistical significance through the t-values (Dunn, Seaker & Waller, 1994). According to Segar (1997) and Byrne (2001), the AMOS software in the text output file, the t-value is the critical ratio (C.R.), which represents the parameter estimate divided by its standard error and a t-value greater than 1.96 or smaller than 1.96 implies statistical significance. However, According to Hair et al. (2006), the standardised factor loadings should have a loading estimate of at least 0.5, or ideally, exceed 0.7 to be considered as significantly linked to the latent constructs. Otherwise, the insignificant loading or low-loading estimate implies a potential measurement problem. Therefore, the factor loadings for each construct were assessed to recognise potential problems with the CFA model. After the measurement model was estimated, convergent validity was tested to specify the extent to which the indicators of a specific construct converged or shared a high proportion of variance (Hair, et al., 2006). The loading of each of the observed indicators on their underlying latent construct was noticed for this validity test (Anderson & Gerbing, 1988).

As shown in Figure 4.1, the CFA results indicated that each factor loading of the reflective items was statistically significant at the 0.001 level. Furthermore, no factor loading was less than the recommended level of 0.5 and the items, all on an ideal value, were loaded

in the latent factors and the least value that was loaded is the PEXp10 with 0.707 for the pilgrim experience factor.

Besides that, the squared multiple correlations or item reliability in the CFA model were assessed to find out the extent to which an observed variable's variance was explained by the underlying construct (Hair et al., 2006). As recommended by Bollen (1990), the squared multiple correlations of the observed variables are acceptable at the level of 0.5. As shown in Table 4.8, most of the item reliability in the measurement model exceeded 0.50, indicating that most of the latent constructs in the model accounted for more than half of the explained variance in each of the observed variables.

Table 4.8 *Factor Loadings and Item Reliability (Revised Measurement Model)*

Latent Constructs	Items	Unstandardized Factor Loading	Std.Factor Loading	Std Error[a]	Critical Ratio[b]	Item Reliability
Functionality	FN4	1.000	0.899	-	-	0.807
	FN3	0.950	0.842	0.49	19.203	0.709
	FN2	0.918	0.845	0.48	19.306	0.713
	FN1	0.878	0.849	0.50	17.450	0.721
Accessibility	ACC4	1.000	0.786	-	-	0.618
	ACC2	1.071	0.829	0.075	15.256	0.687
	ACC1	0.995	0.793	0.076	12.646	0.628
Security	SEC5	1.000	0.710	-	-	0.504
	SEC4	1.091	0.816	0.075	14.895	0.666
	SEC3	1.227	0.852	0.101	12.130	0.726
	SEC2	1.060	0.768	0.094	11.329	0.590
Pilgrim	PEXp1	1.000	0.700	-	-	0.489

experience	1					
	PEXp10	1.232	0.811	0.096	12.781	0.657
	PEXp8	1.127	0.752	0.084	13.365	0.566
	PEXp7	1.378	0.868	0.102	13.502	0.754
	PEXp6	1.474	0.877	0.107	13.768	0.769
	PEXp4	1.593	0.879	0.117	13.640	0.772
	PEXp3	1.332	0.794	0.106	13.529	0.631
	PEXp2	1.268	0.763	0.105	12.047	0.582
Self-service phone kiosk satisfaction encounter	SAT3	1.000	0.863	-	-	0.744
	SAT2	1.016	0.874	0.053	19.121	0.765
	SAT1	1.030	0.892	0.052	19.803	0.796
Continued usage intention	CINT2	1.000	0.887	-	-	0.786
	CINT1	0.920	0.894	0.048	19.147	0.799

Note: [a] S.E. is an estimate of the standard error of the covariance; [b] C.R. with value more than 3.32 implying significance level of 0.001; [c] some critical ratios were not calculated because loading was set to 1 to fix construct variance.

4.7.5 Construct Reliability (CR) and Variance Extracted (VE) Measures

Besides assessing the factor loadings and item reliability in the measurement model, the convergent validity was also examined via the measure of construct reliability and variance extracted. Variance extracted (VE) is computed as the total of all squared standardized factor loadings. According to Hair et al. (2006), a VE of 0.5 or higher indicates adequate convergence, whereas a VE of less than 0.5 indicates that on average more error remains in the items than the variance captured by the latent constructs.

Furthermore, the construct reliability (CR) for each latent construct was established to assess the adequate convergence or internal consistency of the measurement model. A CR with a value of at least 0.7 is suggested to support adequate convergence (Nunnally, 1978). As presented in Table 4.9 the VE and CR for each construct fulfilled the cut-off of 0.5 and 0.7, respectively, supporting the convergent validity of the measurement model.

Table 4.9 *Confirmatory Factor Analysis for Convergent Validity*

Construct	No. of Items	Item Loadings	Construct Reliability	Variance Extracted
FN	4	0.842– 0.899***	0.918	0.73
ACC	3	0.786– 0.829***	0.845	0.64
SEC	4	0.710– 0.852***	0.867	0.62
PEXp	8	0.700– 0.879***	0.937	0.65
SAT	3	0.863– 0.892***	0.909	0.80
CINT	2	0.887– 0.893***	0.885	0.79

*** $p < .001$

4.7.6 Discriminant Validity

Discriminant validity was assessed in this study to measure the extent to which a construct was truly affecting other constructs (Hair et al., 2006). Through comparing the average percentage of variance extracted (VE) the value in this study was determined, and then the VE and the squared inter-construct correlations associated with that construct (R^2). AMOS could identify the items redundancy in the model through a discrepancy measure called Modification Indices (MI). The high value of MI indicates the respective items are redundant. Another requirement for discriminant validity is the correlation between the exogenous constructs that should not exceed 0.85. The correlation value exceeding 0.85 indicates the

two exogenous constructs are redundant or have a serious multicollinearity problem (Awang, Afthanorhan & Asri, 2015).

In terms of the construct validity, as a rule of thumb, the VE value for the two factors should be more than R^2 to provide evidence of discriminant validity (Hair et al., 2006). Table 4.10 demonstrates the results for discriminant validity, where the figures of R^2 are stated in the yellow highlighted column. The only noticeable squared correlation was the relationship between FN and ACC as the value showed marginally higher than the variance extracted.

It was found that the variance extracted of each construct is all above its squared correlation. Following Fornell and Larcker's (1981) guidelines, it was evident that these results lend adequate evidence for the discriminant validity of the present measurement model. Overall, the construct reliability and validity assessment demonstrated strong support for the convergent validity and discriminant validity of the measurement model.

Table 4.10 *Variance Extracted (VE) and Squared Correlation between the Constructs* (R^2)

Factor	VE	CINT	SAT	PEXp	SEC	ACC	FN
CINT	0.79	1					
SAT	0.80	0.856	1				
		0.732					
PEXp	0.65	0.069	0.052	1			
		0.0047	0.0027				
SEC	0.62	0.468	0.521	0.063	1		
		0.291	0.271	0.0039			
ACC	0.64	0.627	0.692	0.055	0.657	1	
		0.393	0.478	0.0030	0.431		
FN	0.73	0.744	0.783	0.137	0.482	0.861	1
		0.553	0.613	0.018	0.232	0.741	

4.8 Structural Model Specification

The SEM technique was used as the main statistical tool to test the main hypotheses proposed in this study. As suggested by Hair et al. (2006), the proposed theoretical model was modelled in a recursive manner to avoid the problems associated with statistical identification. This is more so for the present empirical data that was cross-sectional in nature. A total of 24 indicators were contained in the final structural model. Each indicator was connected to the underlying theoretical construct in a reflective manner.

The structural relationships between the latent constructs represented by single headed straight arrows were specified according to the hypotheses established. However, as for the self-service phone kiosks attributes there are correlations between the three endogenous

constructs "functionality, accessibility and security" so, the doubled headed arrows were used, according to Amos recommendations to have a good model fit.

4.8.1 Evaluation of the Hypothesized Model

The model shows a good model fit depending on the facts indicated on the Amos SPSS program. The proposed structural model presented these values of goodness-of-fit (Chi-square = 415.457, GFI = 0.888 CFI = 0.963, TLI = 0.957, RMSEA = 0.054). The two fit indices for CFI and TLI were greater than the 0.90 threshold for acceptability. However, the fit index for GFI was 0.888, which was 10 percent lower than the 0.90 for acceptability. While the RMSEA value was reported to be slightly lower than the recommended value of 0.06 for good model fit, it is an acceptable model fit.
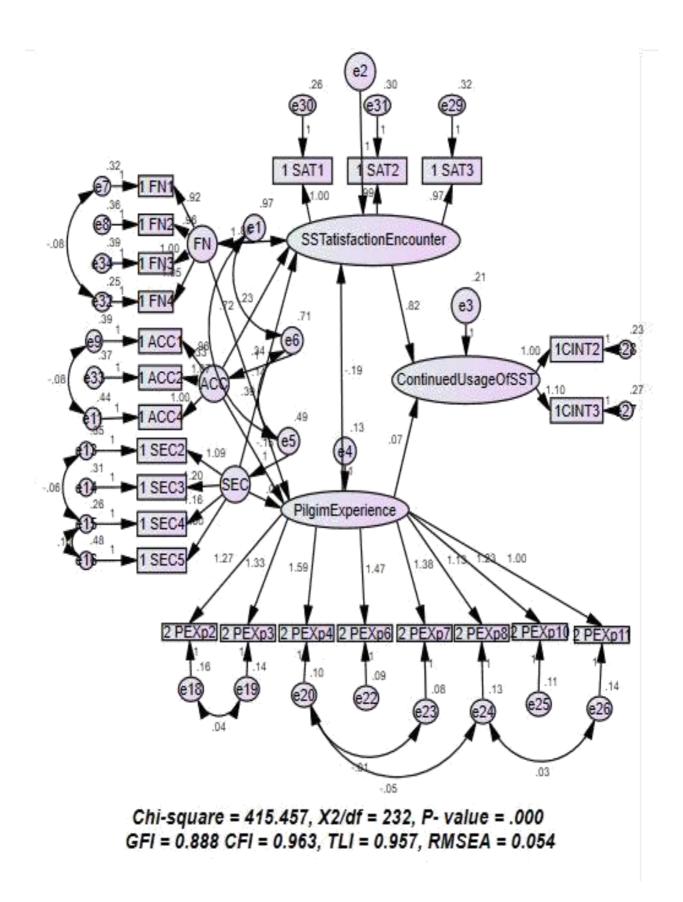
Figure 4.2 Structural Equation Modelling

4.8.2 Results of Hypotheses Testing

Based on the hypotheses structural equation modelling was chosen for this study to examine through a few steps which followed the recommendation by Hair et al. (2006): (1) to determine the significance of each hypothesised path in the research model, and (2) to examine the nature and magnitude of the relationships between the latent constructs according to the theoretical expectations. The hypothesized paths with non-significant estimates or significant estimates but the opposite of the expected direction would not be supported, because such findings would not have a meaningful contribution to the body of knowledge. Also, the respective absolute magnitude of the standardised path coefficients was examined to determine the extent of effect of each of the exogenous variables on its endogenous variable (Hair, et al., 2006). According to Kline's (2005) recommendation, a standardised path coefficient with an absolute value below 0.10 indicates a small effect; a value around 0.30 indicates a medium effect; and a value above 0.50 indicates a strong effect.

Eight main hypotheses were developed for testing in this study as follow:

H1a The functionality attribute of the self-service phone kiosk will have a positive influence on the pilgrims' satisfaction encounter of self-service phone kiosk.

H1b The accessibility attribute of the self-service phone kiosk will have a positive influence on the pilgrims' satisfaction encounter of self-service phone kiosk.

H1c The security attribute of the self-service phone kiosk will have a positive impact on the pilgrims' satisfaction encounter of self-service phone kiosk.

H2a The functionality attribute of self-service phone kiosk will have a positive influence on the pilgrim experience.

H2b The accessibility attribute of the self-service phone kiosk will have a positive influence on the pilgrim experience.

H2c The security attribute of the self-service phone kiosk will have a positive impact on the pilgrim experience.

H3 Self-service phone kiosk satisfaction encounter will influence continued usage intention positively.

H4 The pilgrim experience will influence continued usage intention positively.

Table 4.11 presents the significant structural relationship among the research variables and the standardized path coefficients. The data showed that both the self-service phone kiosk attributes of functionality (β = .818) and security (β = .318) had a significant effect on the self-service phone kiosk satisfaction encounter (SAT). Hence, hypotheses H1a and H1c are supported. Furthermore, the result suggested that accessibility has no effect on self-service phone kiosks satisfaction encounter; thus, H1b is not supported.

Table 4.11 *The Findings of Hypotheses Testing*

Paths	Hypothesized Direction	Standardized Path Coefficient	Standard Error	Critical Ratio	Supported?
H1a: FN – SAT	+	0.818***	0.126	6.502	Yes
H1b:ACC-SAT	-	-0.173	0.172	-1.002	No
H1c:SEC-SAT	+	0.318***	0.101	3.143	Yes
H2a: FN – PEXp	+	0.126 *	0.064	1.952	Yes
H2b: ACC – PEXp	-	-0.126	0.092	-1.366	No
H2c: SEC– PEXp	-	0.047	0.054	0.876	No
H3: SAT– CINT	+	0.819***	0.051	15.984	Yes
H4: PEXp – CINT	-	0.036	0.104	0.346	No

Note: ***p < 0.001; **p < 0.01; *p < 0.05; m = marginally significant; ns = non-significant

Note: In terms of the customisation and design attributes of the self-service phone kiosk were dropped in the first phase of the analysis due to not loading clearly on either of the self-service phone kiosk attributes factor loadings.

Additionally, the results revealed a positive relationship (β = .126) between the self-service phone kiosks attribute functionality (FN) and the pilgrim experience (PEXp). Therefore, hypothesis H2a is supported. Moreover, the impact of both accessibility (β = -

0.126) and security attribute (β = .047) on pilgrim experience was nonsignificant. Hence, hypotheses H2b and H2c are not supported.

The results show a strong positive relationship (β = .819) between the self-service phone kiosks satisfaction encounter "SAT" and continued usage intention "CINT". Finally, pilgrim experience (PEXp) has no effect on continued usage intention (CINT) (β = 0.036), therefore, hypothesis H4 is not supported. Table 4.11 demonstrates the results of each hypotheses examined in this study. The below chart displays paths of the research with a standardised path coefficient of each variables of the research.
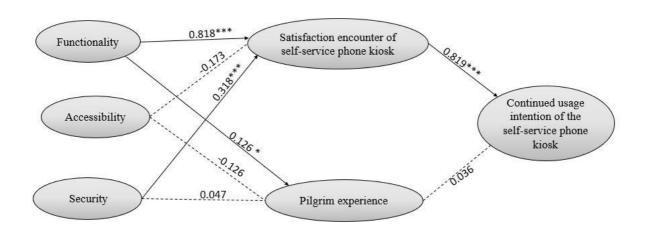

Figure 4.3 **The Final Results of**

Hypotheses

A summary of the results will be provided prior to the discussion in chapter five.

Chapter 5 Discussion and Implications

5.1 Introduction

This chapter provides a discussion of the study findings presented in Chapter Four. Two studies were carried out whereby the outcomes of focus group interviews were used to develop a scale to measure the construct of pilgrim experience. An overview of the focus group interview results and discussion will be presented followed by a discussion of the findings of the survey. The discussion will address specific research objectives posed in the study. Finally, a discussion of the theoretical, methodological, and practical contributions of the study will be presented.

5.2 Overview of Focus Group Findings

The pilgrimage journey (Hajj) in the Islamic faith is considered the fifth pillar of Islam that should be undertaken by each Muslim being physically and financially able to undertake it (Henderson, 2011). The importance of this spiritual journey experience was highlighted within the focus group interview as most of the interviewees stated that this journey was one of the most important journeys in their entire life. They also commented that this journey represented a starting point in their lives after which they have committed to new deeds and keep up good habits.

The spiritual aspect of visiting the holy mosque was the element that most of the interviewees agreed that they should obtain and maintain during their pilgrimage, and they call the pilgrimage journey a "spiritual journey". The results from the fourth chapter establish that the level of quiet and tranquillity in the holy mosque and the timing of visiting "Umrah" the holy mosque of Makkah, are priorities for the interviewees to accomplish

feelings of spirituality. Second, most participants agreed that distractions (i.e., companionship during the visit or fellow travellers, phone noise and crowdedness) have to be managed to increase spirituality and tranquillity. Third, the pilgrimage is a journey that helps the pilgrims purify themselves in terms of their sins and is considered a new starting point for their lives.

Generally, these results concurred with past research. For example, Henderson (2010) stated that spirituality is the factor that had the greatest influence in motivating pilgrims to undertake this journey and to seek forgiveness from their creator. In another study, the authors put forward the idea that the pilgrims are motivated by their religious devotion and the pleasure that they derive from travelling and embarking on a holy tour (Hudman & Jackson, 1992). A study in the field of anthropology found that this journey is considered to be a move toward a journey that is structurally complex (Turner, 1973). From the current research, one participant describes how she had been told that the pilgrimage is an incredible spiritual journey, and she explained that during her pilgrimage experience she was "speechless and [it was] indescribable". It can be seen from this that there are certain expectations held before the journey to the holy place is undertaken.

Several authors found that generally pilgrims actively search for services and accommodation for their pilgrimage through online platforms in order to prepare in advance for their visit to the holy places (Park et al., 2016; Husemann & Eckhardt, 2018). This would imply on the types of the services that the pilgrims may need during their pilgrimage journey (e.g., transportations, health and wellbeing facilities and the telecommunication services).

These are the noticeable findings from the first section of the focus group interview. These findings helped develop the scale for the survey study which measured the pilgrim experience.

One of the objectives of the focus group interviews was to understand the motivation behind using the self-service phone kiosk as well as attribute evaluation (see Table 4.4). Functionality, security, accessibility, customisation and design are the most obvious attributes participants care about in regard to use of phone kiosk according to this study findings. The participants in the focus group interviews compared between the self-service technology in general, at different facilities, and from other service providers, when they described the strengths and weaknesses of such services and what they felt needed to be improved. Their overall comparison results impression was applied to the phone kiosk and they gave some recommendations as to what such a service should look like in order to serve the Muslim pilgrim sector. This helped to recognize pilgrim customers' needs and from this build a survey scale through reviewing the focus group interviews answeres. The focus group study revealed some features of self-service phone kiosks which could be modified for further service improvement. For example, the interviewees mentioned some elements considered necessary to improve the functionality of the self-service phone kiosks, such as accuracy, customisation and the time and effort they spent to deliver the service themselves. They also mentioned two other elements; specifically, security and accessibility. They referred security to personal and financial information security and accessibility referred to location and operating hours.

5.2.1 Contribution of the Focus Group Interview Study

The current literature is relatively limited in terms of research exploring the Muslim pilgrimage journey in terms of the facilities and services that are provided at the pilgrimage sites. One of the first contributions of this research is the exploration and the development of a measurement scale for pilgrim experience. This study also sheds light on Muslim pilgrims in particular, as the Islamic faith is the fastest growing religion in the world (Almuhrzi &

Alsawafi, 2017). There was little literature in this area and there was no existing scale for assessing pilgrim experience. The pilgrim experience scale developed based on the two focus group interviews has been validated through content and discriminant validity tests.

5.3 Overview of the Survey Findings

This study examines pilgrims' experience and use of self-service phone kiosk focusing on customer satisfaction and usage intentions, specifically. The pilgrime experience has been examined alongside the self-service phone kiosk attributes and pilgrim satisfaction with the usage of self-servcie phone kiosk and continued usage intention in the future variables. Furthermore, the statistical results have supported some of the hypothesised relationships depicted in the proposed research model which will be discussed next.

5.3.1 The Impact of Self-Service Phone Kiosk Attributes on the Self-Service Phone Kiosk Satisfaction Encounter

Naturally, satisfaction is considered the main reason for choosing self-service technologies from both sides of the purchase; the customers and the business. When firms or service providers think of utilising this type of service, satisfaction is one of the main reasons considered, while for the customers, their decision is based on finding an easy and fast service to meet their needs satisfactorily (Oliver 1997; Szymanski and Henard, 2001). Notably, in previous study found that in each research a set of factors or attributes which met the customers' needs and satisfied them and these factors might also dissatisfy other segments depend on their overall experience and their own degree of expertise (Kallweit et al., 2014). It is also likely that in this new era of technological services becoming more widespread in various spheres has an effect of consumers' perceptions of these self-service

technologies (Lee & Lyu, 2016). Additionally, there was agreement that consumer satisfaction has an impact on consumer retention and profitability (Anderson & Fornell 1994; Mano & Oliver 1993; Oliver & Westbrook, 1993, Oliver, 1997; Price, Arnould, & Tierney 1995; Reichheld & Sasser, 1990). Moreover, in a recent study, the results of the final sample showed that one percent more than a half of the respondents described a satisfactory encounter using self-service technologies (Hwang, Suk, Kim, & Hong, 2018). Adding to that, the satisfaction in many different situations is driven by customers need to be bailed out of a difficult situation or to solve a problem they are confronted with (Hsu & Chiu, 2004). They also found that customer satisfaction with the self-service technologies is normally caused by the improvements and additional benefits of saving time or reducing wait time (Hsu & Chiu, 2004). This would be important for customers who have limited time, for example, pilgrims.

In relation to the influence of accessibility on the self-service phone kiosk satisfaction encounter in this research not proving significant. In terms of accessibility and its relationship with satisfaction, past research has confirmed that users are often pleased with self-service platforms as they enable them to receive service at off-site locations (Liljander et al., 2006).

Meuter et al. (2000), found that the ability of using the self-service technology whenever a customer needs and want leads to improving in the degree of satisfaction which in turn increases repeat usage over the long term. Past studies agreed that accessibility is an indicator of satisfaction in all different contexts and facilities and with different self-service platforms (Szymanski & Hise, 2000; Childers et al., 2001; Yang, Peterson, & Cai, 2003). However, this was not the case in this study as the results showed the influence of the accessibility attribute on self-service phone kiosk satisfaction encounter was insigificant.

To view this more clearly, within the focus group interviews, respondents triggered the accessibility as an attribute of self-service phone kiosk that they were taking for granted (see Table 4.4).

The functionality path hypothesis with self-service phone kiosk satisfaction encounter is supported in this study. Additionally, a previous study found that more than half of the respondents are satisfied with their use of self-service technologies and they emphasised that this option is considered better than the alternative (Liljander et al., 2006). This current research found that self-service phone kiosk performance and functionality has a direct impact on overall satisfaction as it relates to use. Supporting this finding, when companies conducted research measuring user satisfaction, even though they found that 80-90 percent of users were satisfied or even very satisfied, they were unable to determine the customers' degree of loyalty which may influence the continued usage intention (Yen, 2005). Some research has also found that self-service technologies functionality and ease of use increases satisfaction rapidly and this would lead to quality service as well (Kallweit et al., 2014). Parasuraman, Zeithaml and Berry (1988), and Van Gorder (1990) confirmed this finding and stated that accurate and reliable self technological based service performance is what the consumer needs in order to attain satisfaction and it was described as an important dimension. Dabholkar (1996) and Dabholkar and Bagozzi (2002) agreed that among their three different segments, performance and convenience attributes significantly predict satisfaction for consumers. Therefore, this indicates that the performance, reliability and functionality of self-service technologies is considered to be the most desired pleasurable feature consumers aim to meet in using self-service technologies (Meuter et al., 2000). The functionality results from this research confirmed the findings of past studies, overall satisfaction with self-service phone kiosks is affected by it.

In terms of security, it has a significant impact on the satisfaction with the self-service phone kiosk. In supporting this finding, a past research found that an optimistic outlook would facilitate the use of self-service technologies and decreases feelings of insecurity and discomfort (Curran & Meuter, 2005). This potentially is the case of the pilgrims customers. However, insecurity may delay or inhibit self-service use among some customers (Kim & Qu, 2014). Insecurity may also be due to a lower level of trust in the way this service protects the user's personal information, in other words, the degree of privacy this technological based service can provide to users. In the case of this research, the security of this self-service phone kiosk in particular might play a pivotal role in the feelings of satisfactions towards this service. It is worth noting that the firm providing the service could be the reason there are doubts about its security, as a company with a good reputation can create a relationship of trust between the company and the customers which is associated with security in this situation (Addy & Lynn, 1999). STC might considered a high professional company which indicated this result.

Finally, this research results confirmed previous research findings in terms of satisfaction with self-service technologies use and important self-service technologies attributes, but accessibility in terms of self-service phone kiosk attribute use did not influence the self-service phone kiosk satisfaction encounter as much as in those studies. Notably, the findings pointed to a strong relationship between satisfaction and the continued usage intention of the phone kiosk, and this will be discussed in detail in the next section.

5.3.2 The Effect of the Self-Service Phone Kiosk Attributes on Pilgrim Experience

This research examined the impact of the self-service phone kiosk attributes (i.e., functionality, security and accessibility) on the pilgrim experience. The findings revealed that

functionality has a positive impact on the pilgrim experience. However, accessibility and security did not appear to have a significant impact on pilgrim experience. Since this study is the first look at the pilgrim customer sector, there is no literature which has assessed this facet of the research. Nevertheless, there is literature that discusses self-service attributes from different sectors and service areas (i.e., online banking, self-service or scaning services in retailers and the check in airport kiosks) used by various users but are perhaps not relevant to this current study. However, this literature will be assessed to see whether there is any convergence with this research's results.

In terms of security, this research's structural equation modelling (SEM) results for the self-service phone kiosk attribute "security" indicated that this attribute has a nonsignificant impact on pilgrim experience. However, previous literature has referred to this attribute using different terms (For example, Bobbitt and Dabholkar, 2001). Suh and Han (2002), researched attitudes toward the use of self-service technologies, referred to it as perceived risk and found that it has a significant impact on the acceptance of self-service technologies, and over the long-term the self-service technologies would be embraced. Consumer security and privacy while using self-service phone kiosk are considered critical to service evaluation and to the acceptance of the self-service phone kiosk (Parasuraman et al., 2005). Lee and Turban (2001) found risk and security may inhibit the usage of self-service technologies. It has also been found that consumers' perceptions of risk and uncertainty negatively impact their evaluations of self-service technologies and delayed their repeated use of this service (Pan & Zinkhan, 2006; Wolfinbarger & Gilly, 2003). The results indicated in this research showed different results may be because of this segment of this research considered not ordinary customers. The feelings of unity and brotherhood feelings that are associated with pilgrims that some participants referred to in the focus group interviews (see Table 4.2) might make it harder for pilgrims to believe in risk around them

and enhance their feelings of safety and protection, they feel they are and the other pilgrims as one family. Haq and Jackson (2009) found that the brotherhood is highly related to the degree of spirituality Muslims members feel during the hajj season. Sequeira (2016) found through statistical survey research, that crime is significantly lower by 13 percent, in Makkah, during the month of Ramadan and with the influx of foreign pilgrims into the city, this representing a high degree of security.

Additionally, a high rate of trust toward the self-service phone kiosk usage could be a reason that users are feeling secure and safe about usage since the provider has a good image and integrity in the market. Moreover, in the survey (see Table 3.1) the scale specifically measured concerns regarding the revealing of personal information, which maybe considered an issue related to the company rather than to users securing the service.

The second attribute this research examined through its relationship with pilgrim experience was accessibility. The result of the (SEM) approach showed that accessibility had a nonsignificant effect on the pilgrim experience. The current research's results differ from past studies. One of these studies posited that accessibility is one of the most significant attributes in terms of the use of the self-service technologies (Ding, Hu & Sheng, 2011). Some research found that consumers prefer self-service technology due to its perceived value, and this includes convenience and accessibility (Lin & Hsieh, 2011). The reason why accessibility was not showing a significant influence on the pilgrim experience could be because of the availability or prominence of the self-service phone kiosks in the most central place in Makkah. That made the respondents care less about accessibility as it is already accessible and in a "handy place" as the participants of the focus group interviews referred to (see Table 4.4).

In regard to functionality, this attribute was examined in terms of its impact on the pilgrim experience, the hypothesis for the functionality attribute was supported and the impact of functionality on the pilgrim experience is significant. As there is no research focussing on the pilgrim sector as a sample of the research, comparing past research with this current research would be inappropriate and may prove inadequate. However, in order to further theoretical reasoning, the experience of other types of self-service technology users will be discussed in relations to the views of pilgrim experience. The opinions of past scholars vary in terms of context, perspective and research results, however one of the past findings from marketing literature suggest that the degree of the self-service platform usefulness and functioning design influences continued use intention (Meuter et al., 2000). In contrast, another piece of research found that consumers who perceive functionality and usefulness in terms of traditional interaction were more likely to lean toward face-to-face services (Suzuki, Imashiro, Shoda, Ito, Sakata & Yamamoto, 2018).

Functionality has been found to be a critical attribute for customers when they use technology and potential customers consider it a major concern when they use the self-service technologies (Davis et al, 1989). Furthermore, Bitner's (2001) research agreed with this and explained that poor design potentially caused frustration that occurred while using self-servcie technologies platforms which affected the functionality and overall use as well. These findings confirmed what this current research found and indicated that this factor is already enhanced in the self-service phone kiosk. In other research studies, authors were concerned with how much effort was required in using self-service technologies due to their complexity, which indicates that functionality is the main attribute consumers desire (Dabholkar, 1996; Meuter et al., 2000). These findings support the findings of this research in terms of the influence of functionality on the pilgrim experience. A high rate of functionality

came up in the focus group interviews as well, with the participants critically discussing this attribute and finding it crucial to accepting the self-service phone kiosk. That due to its ability to provide an ease to use the self-servcie phone kiosk especially as the pilgrims are generally coming from different backgrounds, so, the degree of expertise of using such a service may considerably differ between them (see Table 4.4).

5.3.3 The Impact of Self-Service Phone Kiosk Satisfaction Encounter on the Continue Usage Intention

Continued usage or repeated usage is the main action companies are aiming for and it is the production of many elements such as the quality and reliability of service, trust between the user and the provider and acceptance of the self-service technologies (Lee & Lyu, 2016). The findings of the present research confirmed past research findings, as satisfaction with the self-service phone kiosk encounter tended to have a positive influence on the intention to reuse the kiosk. Past findings revealed that the acceptance of a technologically-based service is reflected in the strength of the attitude towards using self-service technologies and the intention to use them (Davis et al., 1989). Another study showed that perceived service quality has a positive impact on the intention to reuse self-service technologies, making it important to improve customer satisfaction (Liao & Lu, 2008). Theoretically, satisfaction will lead to the intention to continue using the service otherwise it would not be considered satisfaction (Eriksson & Nilsson, 2007). This result potentially caused by the degree of functionality and ease of use this service provided to customers as in the Table 4.4. One of the participants specified that the language is one of the main facilitation factor pilgrims are looking at when searching for a service, and this attribute showed a significant impact on pilgrim satisfaction and experience. As the language barrier considered to be an impetus to use another technological based service that provide the language facilitation.

5.3.4 The Impact of the Pilgrim Experience on the Self-Service Phone Kiosk Continue Usage Intention

The result showed that pilgrim experience has no effect on the intention to continue use the self-service phone kiosk. Since there is no previous research studying this segment of customers as a sample, the discussion will be mainly based on the continued usage intention of the self-service phone kiosk of other types of users reuse self-service technology-based machines in different settings. The results of the focus group interviews in this study will also be referred to. Fundamentally, the customers' continued usage intentions of self-service technologies are directly influenced by their initial use and the functionality of the self-service technologies (Eriksson & Nilsson, 2007). Moreover, in a recent study in human behavioural automaticity, the findings showed that most human functioning is rooted in individual habits, and cultural and educational background. That may mean that continued usage intention of self-service phone kiosk is not the only cause of repeated use as this behaviour could become a force of habit, without any intentional thinking behind it (Wang, Harris & Patterson, 2013). It has also been found that habit has a direct impact on behaviour over time, although the intention to reuse the self-service technologies influences the initial usage, it is not considered to be an ultimate predictor of repeated use or what will strengthen usage so it becomes a habit (Wang et al., 2013). Subsequently, the results of this research were not supported by the results of previous research, and that could be due to the fact that this customer segment are not a traditional customer segment. The fact that this research did not find a significant relationship with the intention to continue to use the self-service phone kiosk may be influenced by the fact that these customers are pilgrims who may visit "grand Makkah" no more than once in most of the time. Also, as the service might be different from a place to another in terms of design and classification that delay the use or in some cases prevent it.

5.4 Contribution and Implications of this Research

This study provides several contributions, theoretical, methodological and practical,that address the pilgrim experience of the new technologically-based service launched in Makkah by oldest and largest Saudi Arabian telecommunications company "STC".

5.4.1 Theoretical Implications

The present study provides a promising foundation and an empirically tested conceptual framework of self-service technology consumption and pilgrim experience. The model presented in this study provides a framework for examining observed variations that influence pilgrim experience which represents the first attempt in marketing literature. Particularly, this study offers some theoretical insights into the influence of specific self-service phone kiosk attributes on pilgrims' satisfaction encounter and their overall pilgrim expereince. Additionally, this research provides a considerable contribution to tourism literature as it relates to the investigation of the pilgrim experience that many researchers from different research fields have called for.

5.4.2 Methodological Contribution

Recently there was a call for a mixed method paradigm in marketing research (Johnson & Onwuegbuzie, 2004) and this method used in this present research which contributed to it in a number of ways . First, acknowledging customers' needs would be more effectively achieved using a qualitative method. Second, the psychological and emotional facets this research attempt to measure it is somehow hard to examined through quantitative research such as pilgrim experience in terms of the spiritual and worship related emotions, the qualitative

research would be affective to display clearly to the research how it should be measured and which technique would be suitable. According to Johnson and Onwuegbuzie (2004) applying both methods of research benefit the research results as the quantitative method works as a confirmation of the qualitative study. Most important, this study contributed by the development of an initial measurement scale for the construct of pilgrim experience. The final items of this construct have been tested and validated. Scholars researchers may adopt or adapt this scale for future research in other settings.

Finally, in terms of location of the research, it was undertaken in Makkah as itself being a logical place for this research to be conducted, where the sample population would be having their experience, and to add to this study credibility since it is a sacred place.

5.4.3 Practical Implications

In addition to the theoretical and methodological contributions, the present study also provides practical contributions and implications for the development, design and marketing of self-service, particularly the phone kiosk. With reference to these findings, communication service providers could plan and execute their marketing strategies, especially in terms of the impact of satisfaction and important attributes of the self-service phone kiosk.

Specifically, the significant impact of self-service phone kiosk satisfaction encounter that influenced the continued usage intention of the phone kiosks in the future increasing the awareness of the telecommunication services this allows managers to understand the self-service technology attributes amongst pilgrims which serve as the motivational drivers in the process of their adoption of the phone kiosk technology. If satisfaction with the phone kiosk were to increase, repeat usage might also increase. According to Yen's (2005) findings, it provides interesting insights to practitioners in the field of marketing and management for

redesigning the self-service technological based machines to enhance user satisfaction via concentrating on attributes of different technological segment as was the aim in conducting this research. This research also strove to evaluate customers' experience of the self-service phone kiosks in order to discover how to manage it well. This in turn might boost the aspect of the management and profitability for providers and give insights into the needs and requirements of the consumers while also serving as a forecast of the number of users in the future based on current user numbers (Stone, Deadrick, Lukaszewski & Johnson, 2015). This could also have important managerial implications as companies develop new self-service technologies and struggle with service encounter failures (Meuter et al, 2000).

Additionally, the nature of this research looked at the various backgrounds of the users in terms of their culture and education level and it provides an opportunity for telecommunications companies to understand these different demographic segments and the needs and requirements of pilgrim consumers which can be used to improve the service accordingly. This research would also suggest that collaborations take place between the Hajj and Umrah Ministry and the telecommunications service providers in Saudi Arabia to advertise this service to pilgrims and provide information and guidance explaining the use and benefits of the service. This information may stimulate favourable perceptions on the part of consumers toward this service and serve to increase the adoption rate.

In summary, the present study made several theoretical, methodological and practical contributions to the existing literature in various research fields, marketing, tourism, religion and anthropology. Specifically, the pilgrim experience and its related concepts, particularly spirituality, contributes to current and future research in the fields of tourism, religion and anthropology. It will also contribute to marketing and management research in terms of consumer satisfaction with the self-service phone kiosk and intention to continue use.

Nevertheless, a few limitations that were encountered during the implementation of the study need to be considered in the data analysis of this study. These limitations and a number of areas that could present avenues for future research are presented in Chapter Six.

Chapter 6: Conclusion

6.1 Introduction

Following the elaborated discussions and study implications presented in the previous chapter, this chapter concludes the thesis by presenting the limitations of the study and proposing areas for future research.

6.2 Summary

Religious tourism "Pilgrimage tourism" refers to the journeys followers of various religions set out for travelling to places of special interest such as spirituality and worshipping. A pilgrimage is a journey by a believer to a holy site or sites (Blackwell, 2007). The central premise of this study is to shed light on this under-researched area of pilgrimage tourism from a marketing perspective.

This research was conducted to answer multiple objectives related to marketing, tourism, management and religious studies. First, the motivational factors that underlie pilgrim experience. Second, in terms of the self-service phone kiosk usage this research investigated the influence of attributes of this service, such as functionality, security, accessibility, customisation and design. Then, these attributes of the self-service phone kiosk affect pilgrim satisfaction. Lastly, the impact of pilgrim satisfaction with self-service phone kiosk attributes and their experience on continued usage intention.

These questions were examined through two focus group interviews, and the results of these interviews were the basis for a scale adopted for developing the scale of pilgrim experience and the selection of self-service attributes in relation to a pilgrim customer base. The scale developed was used in the survey study which was conducted in Makkah itself as

the most logical place, specifically, around the holy mosque in Makkah in the STC store with the self-service phone kiosk. The questionnaire was distributed manually to the users of the self-service phone kiosk.

The main findings regarding the research questions are as follows: first, the self-service phone kiosk's attributes functionality and security significantly influenced users' satisfaction, whereas accessibility did not show a significant influence on user satisfaction. This indicated a consistency with what has been found in most previous studies in related areas.

Moreover, in regard to the relationship between these three attributes and the pilgrim experience, functionality was considered important to the use of the self-service phone kiosk among pilgrims. However, accessibility and security did not have an influence on the pilgrim experience. A decrease in the feeling of insecurity may be due to the feelings of unity, brotherhood and safety associated with the pilgrims' experience could be a reason for this. As for the self-service phone kiosk's accessibility attribute, as the location of these kiosks was in the most central place in Makkah within the holy mosque's zone, so it was not an issue.

Furthermore, the results of the relationship between self-service phone kiosk satisfaction encounter and the continued usage intention confirmed past research findings, showing it has a significant impact on the continued usage intention. In contrast, the pilgrim experience did not have a significant impact on the intention to continue to use the service, which can be related to this service being limited to Makkah and the fact that pilgrims often visit once in their lives. The findings of this research revealed that understanding each segment is much needed in the area of self-service in marketing research to ensure increase revenue and loyal customers.

This research has contributed to marketing, management and tourism research. The exploration of the pilgrim experience and the scale that was developed to test the pilgrim experience were the main theoretical contributions of this research. In terms of the methodological contributions, the research sample was of religious pilgrims who were located at the site of the pilgrimage, which is a new area for investigation in terms of self-service technologies. This research has contributed an understanding of the profitability and satisfaction levels of users of the self-service phone kiosks which firms can use to improve this service and possibly reach a huge consumer base by providing insights into what this particular customer base needs.

6.3 Limitations of the Study

The present study has contributed to marketing and tourism literature, and has provided some insights into religious tourism management. The two parts have also addressed the research objectives and hypotheses adequately and appropriately. Nevertheless, several limitations of the study should be considered when interpreting its results.

6.3.1 Limitation 1: The current study has included several key concepts related to self-service phone kiosk; however, there are social concepts that might be relevant to the uptake of self-service technology that could be considered. For example, apprehension of failure or social anxiety might also be related to self-service phone- kiosk technology use.

6.3.2 Limitation 2: It would have been useful to capture emotional aspects of self-service phone kiosk use among pilgrimages. For example, a naturalistic observation could have been carried out to gauge whether users experience of the self-service phone kiosk produced any emotional feeling such as frustration, anger, and disappointment. Positive reactions could also have been captured. This considered as a limitation to this research because a presence of a

naturalistic observation study would augment the information and understanding of the pilgrim consumption behaviour.

6.3.3 Limitation 3: As noted in the measurement section "the scale adopted in this study" in terms of the self-service phone kiosk's attributes, there were two attributes dropped in this study in the first phase of analysis which were customisation and design, this would also be considered as a limitation the future research necessary to rethink about it .

6.3.4 Limitation 4: The use of self-report measures can be a limitation. As the survey study relied heavily on the self-report perceptual measure, such subjective measure of evaluation of self-service technology attributes and encounter satisfaction may not reflect the subjects' assessment accurately "honest opinion". Although efforts have been put forward to assure the participants' confidentiality, issue related to social desirability may still inflate the observed relationship.

6.3.5 Limitation 5: The research sample was predominantly female and those in a younger age group, which may be considered a limitation as the views and insights of other age groups and from males may be quite different in terms of perceptions. It might also have been useful to assess the degree of expertise of the participants using the self-service phone kiosks and testing it as a mediating variable between the use of self-service technology and the self-service technology experience satisfaction level.

6.4 Suggestions for Future Research

This research has generated several avenues for further research. First, in light of the limitations of past studies that drive this research to develop the pilgrim experience scale, it is suggested that future research could replicate the study by extending and/or modifying this present scale for a different religious group. This new scale can then be used to test the antecedents and consequences of pilgrim experience in various study contexts in order to elicit more insight into the pilgrim sector.

The second suggestion for future research is concerned with the issues of social anxiety that are related to the use of the self-service phone kiosk, and the associated emotional issues. This would help strategic development for service providers as well as assisting the providers with an understanding of customer needs and enable them to deliver a suitable service to each segment. This would in turn increase acceptance of self-service phone kiosk.

Third, in relation to the methodology as per the original plan of the current study, an observation study was planned to measure and capture the reaction of phone kiosk users to enhance the credibility and validity of the findings and be based upon a measurable scale, specifically in terms of experience satisfaction and attitudes. This could still be undertaken to see whether it would enhance the findings already set out here.

Fourth, replication of this study in different settings would be a potential avenue for future research. Considering other contexts such airports or hotel check out kiosks and scanning machines in retail stores could prove valuable (Lin & Hsieh, 2011).

The fifth area for future study is looking into situational factors that may change consumers' decisions to use the self-service phone kiosk and this would be interesting from

many perspectives. Consumer behaviour is often impacted by situational factors, environmental stimuli, and other sources of arousal (Harris & Katkin, 1975). The situational factors, for example, the presence of a companion, long queues, and in the case of the Muslim pilgrims, the crowded conditions, can have an impact on the decision to use the self-service phone kiosk or not. Therefore, testing these factors may provide greater depth and rigorous implications in the context of self-service phone kiosk in terms of customers' attributes and self-service phone kiosk satisfaction encounter (Wang, Yeh & Liao, 2013).Testing situational factors as mediating variables of the pilgrim experience and the continue usage intention of the self- service phone kiosk would be a suitable and more concise way of testing it.

Lastly, it is recommended that, in addition to replicating the study in order to confirm the findings in other settings, future research should explore the nature and the extent and impact of other possible variables on pilgrim experience, such as environmental factors, and other possible attributes related to the regular use and the repeated use of self-service phone kiosks. This would help in terms of pilgrims as it would increase self-service technology use by large crowds, for example, if pilgrims at the airport checking in using this service. It may also help services for various industries creating ease and tranquillity for the pilgrims and economic benefits for the service provider, allowing them to serve a large population professionally. In this way it would enhance the spiritual experience for this large group who gather at the same time with the same purpose in a relatively small geographic area such as Makkah. It would also introduce a degree of control over this annual gathering in terms of services provided and decrease the number of problems related to crowdedness. These indicated the main refinement the Hajj and Umrah ministry in Saudi Arabia wanted to enhance in terms of controlling the crowdedness issues. Finally. The functionality attribute of self-service phone kiosk indicated to be significantly important amongst pilgrims, that

considered as a noticeable point needs to be taken into account for future research to address

this point in other settings or services.

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Appendices

Appendix A: Ethical Approval

Auckland University of Technology Ethics Committee (AUTEC)

Auckland University of Technology
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T: +64 9 921 9999 ext. 8316
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25 July 2018

Crystal Yap

Faculty of Business Economics and Law

Dear Crystal

Re Ethics Application: **18/288 Self-service technology evaluation, pilgrims experience, and individual characteristics: Toward an integrated framework**

Thank you for providing evidence as requested, which satisfies the points raised by the Auckland University of Technology Ethics Committee (AUTEC).

Your ethics application has been approved for three years until 25 July 2021.

Standard Conditions of Approval

1. A progress report is due annually on the anniversary of the approval date, using form EA2, which is available online through http://www.aut.ac.nz/research/researchethics.
2. A final report is due at the expiration of the approval period, or, upon completion of project, using form EA3, which is available online through http://www.aut.ac.nz/research/researchethics.
3. Any amendments to the project must be approved by AUTEC prior to being implemented. Amendments can be requested using the EA2 form: http://www.aut.ac.nz/research/researchethics.
4. Any serious or unexpected adverse events must be reported to AUTEC Secretariat as a matter of priority.
5. Any unforeseen events that might affect continued ethical acceptability of the project should also be reported to the AUTEC Secretariat as a matter of priority.

Please quote the application number and title on all future correspondence related to this project.

AUTEC grants ethical approval only. If you require management approval for access for your research from another institution or organisation then you are responsible for obtaining it. If the research is undertaken outside New Zealand, you need to meet all locality legal and ethical obligations and requirements. You are reminded that it is your responsibility to ensure that the spelling and grammar of documents being provided to participants or external organisations is of a high standard.

For any enquiries, please contact ethics@aut.ac.nz

Yours sincerely,

Kate O'Connor
Executive Manager
Auckland University of Technology Ethics Committee

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Appendix B: Focus group interview guide

Indicative Interview Guide

Project title: *Self-Service Technology Evaluation, Pilgrims Experience and Individual Characteristics: Toward An Integrated Framework*

Project Supervisor: *Dr. Crystal Yap and Dr. Megan Philips*

Primary Researcher: *Safa Allhyany*

Introduction

Hello, my name is Safa. I am pursuing my master degree with AUT University. The purpose of this focus group interview is to gain insight into your experience when you perform hajj or Umrah as well as your self-service technology consumption experience. It takes about 60-90 minutes of your time to complete the interview. There is no right or wrong answers as I am interesting about your opinions. Do you have any questions or concerns before we begin?

Before we begin I want to make sure you understand the study. Signing the consent form means that you understand and agree to the interview. Was there anything that was not clear from the consent form? Did you want to add anything to the consent form about your participation?

Opening question – I will commence the interview with some warm-up questions as follow:
- Have you ever visited any holy places for religious purpose?
- With whom have you visited this place?
- Where was the place?
- How many times have you been there?
- What do you think about the topic that has brought us here today?

Main questions:
- Remembering back to your last visit to a holy place, can you tell me about that time? [ask for the background of participants' most memorable experience they recalled]
    - ➤ What went particularly well during that visit? What did you like best about the visit/place/etc?
    - ➤ What needs improvement?
- When you think about pilgrimage, what is the first thing that comes to mind?
- Take a piece of paper and jot down three things that are important to you when you are on a journey to a sacred place for religious reasons.
    - ➤ List all the answers on the flip chart then ask: If you had to pick only one factor that was most important to you, what would it be? You can pick something that you mentioned or something that was said by others.

- Ask the participants if they <u>know</u> about the self-service phone kiosk service
  - ➢ Have you heard of the phone kiosk service offer by [the telecommunication service provider]? I would like to hear more of your thoughts and opinions about the phone kiosk.
  - ➢ Can you tell me about how you came to know the phone kiosk service?
- For those who have <u>heard about it but never used</u> it before:
  - ➢ What are some of the good things you have heard about it?
  - ➢ What are some of the bad things you have heard about it?
  - ➢ Do you know anyone who has used the phone kiosk? What was his or her experience?
  - ➢ Will you consider using the phone kiosk the next time you travel there? Please explain
- For those who have <u>used</u> the phone kiosk:
  - ➢ How and when did you use the phone kiosk service?
  - ➢ What have you learned about the phone kiosk?
  - ➢ Tell me about the experiences you've had with the service
- If participants hare unfamiliar with the phone kiosk, explain what it is and how it works [show them a video]. Then ask:
  - ➢ Could you please share with me the first thought on the self-service phone kiosk?
  - ➢ Does this sound like something people might be interested in? Can you tell me more?
- If a pilgrim wanted to use the phone kiosk, what are some of the things that might make it hard for him or her to do so? What are some of the things that might make it easy for him or her to use the phone kiosk service?

Conclusion:
- Thank the subjects for their participation
- Ask if they have any question
- Present the gift voucher

Appendix C: focus group interviews participant Information sheet

Auckland University of
Technology
Private Bag 92006, Auckland
1142, NZ
T: +64 9 921 9999
www.aut.ac.nz

Participant Information Sheet

For use when focus group interviews are involved

Date Information Sheet Produced:

Project Title

Self-Service Technology Attributes, Pilgrims Experience and Individual Characteristics: Toward an Integrated Framework

An Invitation

My name is Safa Allhyany and I am a Master student in the Department of Marketing at AUT University in Auckland, New Zealand. I would like to invite you to participate in this research on the Usage of self-service phone kiosk in the holy city of Makkah. Participation in this research is voluntary and all information collected will be kept confidential. You may withdraw your participation any time before the completion of the research project without any effect to your rights.

What is the purpose of this research?

This research seeks to understand the impact of possible influence of self-service technology on pilgrim's experience during their journey in Makkah as a holy place for performing Hajj and Umrah. I am conducting this study for my master thesis requirement at AUT University in New Zealand as well as an opportunity to present the findings of this study at conferences and publish articles in academic journals.

How was I identified and why am I being invited to participate in this research?

You were initially identified as you are an English-speaking adult (above 20 year of age) and have experience of hajj or have visited the holy mosque of Makkah at least once. Based on this information, I would like to request your voluntary consent to participate in the study.

How do I agree to participate in this research?

You can agree to participate in this research by messaging me through my online social networking sites or emailing me your response at safamm1988@gmail.com. Attached along with this document is a copy of the Participant Consent Form. If you agree to participate in this research, please sign the consent form and email it back to me at safamm1988@gmail.com. I will also have copies of the Consent Form that will be physically available for you to complete prior to the actual interview. Your participation in this research is voluntary (it is your choice) and whether or not you choose to participate will neither advantage nor disadvantage you. You are able to withdraw from the study at any time. If you choose to withdraw from the study, then you will be offered the choice between having any data that is identifiable as belonging to you removed or allowing it to continue to be used. However, once the findings have been produced, removal of your data may not be possible.

What will happen in this research?

Following your acceptance to take part in this study, I will contact you within two days to confirm receipt, answer any queries you may have and include a Consent Form for you to

sign. The discussion would take place at one of the study rooms located at AUT University (city campus). The discussion usually take between 60-90 minutes. These will be audio recorded and I will also be writing notes. Questions will relate to your experiences with hajj or visit and your past self-service technology consumption experience. All information provided will remain confidential, and only pseudonyms will be used in the final reporting. Ages, gender and general information (i.e. marital status, occupation) may be revealed in final reporting but will not enable your identification. After transcription of the discussion, you will receive a copy of the transcript for you to check to ensure you are satisfied with the information provided as well as an opportunity to add further details if you wish to do so. You will also have the choice of receiving a summary of the findings at the end of the research and you may indicate your interest on the consent form.

What are the discomforts and risks?

It is unlikely that you will experience any discomforts and risks when participating in the research. I can assure you that the questions are non-invasive as we are not seeking a level of detail that may identify you or create any discomfort

How will these discomforts and risks be alleviated?

Participation is voluntary and if for any reason you feel uncomfortable, you are able to decline answering certain questions, or even withdraw from the research project at any time prior to the study's completion without any consequences. Additionally, you will have the opportunity of choosing a suitable time for participation to take place.

What are the benefits?

This research has several benefits for you as the participant, the wider community, and the researcher. As a token of appreciation for participating in this study, you will also have access to the results of the research and may use this information to add to your understanding of self-service technology and how this service may change your pilgrim experience. For the wider community, this research outcomes will benefit the academic and business community by providing insight into pilgrims experience and self-service technology consumption. For practitioners, this study will offer insights into whether providing this technological based interfaces would reveal an economic, financial and technological benefits for firms. As a further benefit, the research team will produce journal publications and conference papers based on the findings from this study. AUT University will also benefit from publications based on the materials from this study. This research will also allow me, as the primary researcher, to fulfil the requirement for the award of Master of Business degree from AUT University.

How will my privacy be protected?

Participation in this study is strictly voluntary. Your identity will remain confidential and will not be disclosed to anyone except to the primary researcher and project supervisor. To ensure that privacy and confidentiality are respected, your name will be changed to pseudonyms and contact information will not be disclosed in final reporting. Any data that the researcher extracts from the interview is for academic use only and all reports or published findings will not, under any circumstance, contain names or identifying characteristics. All data will be stored on a password protected memory stick and consent forms will be stored in a password protected cabinet with the project supervisor after the project is completed. Data and consent forms will be deleted after a period of six years.

Contact details of the researcher and supervisor are provided in case of any concerns or complaints that need to be lodged.

What are the costs of participating in this research?

There are no costs to you other than your time to participate in the study. The discussion will take 60-90 minutes.

What opportunity do I have to consider this invitation?

You have two weeks' time from the date the invitation is sent to think about this invitation. It would be appreciated if you can respond within that timeframe. You have the choice of selecting the most appropriate time from date options set by the researcher for the interview to take place.

Will I receive feedback on the results of this research?

By completing a Consent Form or by responding to the invitation message, you may tick the box showing your interest in receiving feedback on the research's results. A result synopsis will be emailed to you once the study is complete.

What do I do if I have concerns about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, Crystal Yap *crystal.yap@aut.ac.nz*, +64 9 921 9999 ext. 5800.

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTEC, Kate O'Connor, *ethics@aut.ac.nz*, +64 9 921 9999 ext. 6038.

Whom do I contact for further information about this research?

Please keep this Information Sheet and a copy of the Consent Form for your future reference. You are also able to contact the research team as follows:

Researcher Contact Details:

Primary Researcher: Safa Allhyany safmm1988@gmail.com

Project Supervisor Contact Details:

Project Supervisor: Dr Crystal Yap crystal.yap@aut.ac.nz, +64 9 921 9999 ext. 5800

Dr Megan Phillps megan.phillips@aut.ac.nz +64 9 921 9999 ext. 5428

Approved by the Auckland University of Technology Ethics Committee on *type the date final ethics approval was granted*, **AUTEC Reference number 16/376.**

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Appendix D: Focus Group Interviews Consent Form

Consent Form

AUT
TE WĀNANGA ARONUI
O TĀMAKI MAKAU RAU

For use when focus group discussion are involved.

Project title: Self-Service Technology Evaluation, Pilgrims Experience and Individual Characteristics: Toward An Integrated Framework

Project Supervisor: **Crystal Yap & Megan Philips**

Researcher: **Safa Allhyany**

☐ I have read and understood the information provided about this research project in the Information Sheet dated XXXX.

☐ I have had an opportunity to ask questions and to have them answered.

☐ I understand that the researcher will take notes during the interview and that they will also be audio-taped and transcribed.

☐ I understand that taking part in this study is voluntary (my choice) and that I may withdraw from the study at any time without being disadvantaged in any way.

☐ I understand that if I withdraw from the study then I will be offered the choice between having any data that is identifiable as belonging to me removed or allowing it to continue to be used. However, once the findings have been produced, removal of my data may not be possible.

☐ I agree to take part in this research.

☐ I wish to receive a summary of the research findings (please tick one): Yes☐   No☐

   o I understand confidentiality of focus group participation is limited, that because the participants will identify each other.

Participant's   signature: ....

....

Participant's   name: ....

....

Participant's Contact Details (if appropriate):

....

....

....

....

Date:

Approved by the Auckland University of Technology Ethics Committee on type the date on which the final approval was granted **AUTEC Reference number** type the AUTEC reference number

2 July 2015   page 1 of 3   This version was last edited in June 2016

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Appendix E: focus group interview Research Invitation

Research Invitation

A study on self-service technology consumption

Hi, my name is **Safa Allhyany**. I am conducting a study of understanding self-service technology consumption and pilgrim experience for my **Master thesis requirement at AUT University** in New Zealand.

You are invited to participate in my research by allowing me to interview you at a focus group setting. To find out more information about my research and what to expect from the focus group interview, please email safamm1988@gmail.com

I am hoping that the project findings can benefit you with an understanding of your pilgrim experience and self-service technology expectation so you can make informed decisions about self-service technology usage.

NOTE: This is an academic research project & there are no commercial interests involved. If you have any issues or concerns, please let me know. No private information or names will be shared in my research outputs. Your consent is voluntary.

For more information, or to give consent, please contact me at:
Safa Allhyany, Auckland University of Technology
Marketing Department
Email: safamm1988@gmail.com

Approved by the Auckland University of Technology Ethics Committee on *type the date final ethics approval was granted,* **AUTEC Reference number** *type the reference number.*

Appendix F: Field Survey the English Version

Auckland University of
Technology
Private Bag 92006, Auckland
1142, NZ
T: +64 9 921 9999
www.aut.ac.nz

Research Survey

The purpose of this study is understand pilgrim's experience and self-service technology consumption. Please consider your usage of the *self-service phone kiosk* and rate your responses according to the scales provided. Please be assured that all responses are strictly confidential and will be remained anonymous. By completing this questionnaire, you are indicating your consent to participate in this research.

Screening questions:

Have you tried the newly launched self-service phone kiosk during this pilgrim visit? Please tick (√) once only where appropriate.

☐ Yes   If yes, please proceed answering this questionnaire

☐ No / unsure   If no, please return this questionnaire to us

Do you live in Makkah? ☐ Yes ☐   No (If no, what is your nationality?

_____

SECTION 1 – Your evaluation about the usage of self-service phone kiosk

Please circle the number that best reflects your evaluation of the self-service phone kiosk.

1 = Strongly disagree; 2 = Disagree; 3 = Mildly disagree; 4 = Neither agree nor disagree; 5 = Mildly agree; 6 = Agree; 7 = Strongly agree

Questions	1	2	3	4	5	6	7
In general, my experience with the self-service phone kiosk is pleasant	1	2	3	4	5	6	7
Overall, I would rate my experience with the self-service phone kiosk favourable	1	2	3	4	5	6	7
I feel good about using the self-service phone kiosk	1	2	3	4	5	6	7
It is beneficial using the self-service phone kiosk	1	2	3	4	5	6	7
Assistance is available to me when I need help to perform transactions using self-service phone kiosk	1	2	3	4	5	6	7
Specialised instruction is available to me concerning transactions using self-service phone kiosk	1	2	3	4	5	6	7
When I need help during the transaction, a person is available to provide assistance	1	2	3	4	5	6	7
The self-service phone kiosk that I use has a clear and easy to follow instructions	1	2	3	4	5	6	7
I can get my service done smoothly with the self-service phone kiosk	1	2	3	4	5	6	7
I can complete my transaction in a short time using the self-service phone kiosk	1	2	3	4	5	6	7
The service process of the self-service phone kiosk that I use is smooth	1	2	3	4	5	6	7
It is convenient to reach the self-service phone kiosk	1	2	3	4	5	6	7
The location of self-service phone kiosk allows me to initiate a transaction easily	1	2	3	4	5	6	7
A convenient location makes me feel more comfortable using a self-service phone kiosk	1	2	3	4	5	6	7
I can easily access the location of the self-service phone kiosk	1	2	3	4	5	6	7
The layout of the self-service phone kiosk is aesthetically appealing	1	2	3	4	5	6	7
The self-service phone kiosk appears to use up-to-date technology	1	2	3	4	5	6	7
The icons on the display is easily recognizable	1	2	3	4	5	6	7

The icons on the display appear familiar	1	2	3	4	5	6	7
The self-service phone kiosk addresses my specific needs	1	2	3	4	5	6	7
The self-service phone kiosk has features that are personalized for me	1	2	3	4	5	6	7
The self-service phone kiosk provides customized services	1	2	3	4	5	6	7
I believe my personal information would be treated confidentially when using the self-service phone kiosk	1	2	3	4	5	6	7
I feel secure supplying relevant information when using the self-service phone kiosk	1	2	3	4	5	6	7
I feel safe in regard to my transactions with the self-service phone kiosk	1	2	3	4	5	6	7
The self-service phone kiosk provides a safe transaction experience	1	2	3	4	5	6	7
Overall, using the self-service phone kiosk is safe	1	2	3	4	5	6	7
Overall, I am satisfied with the self-service phone kiosk	1	2	3	4	5	6	7
The self-service phone kiosk exceeds my expectations	1	2	3	4	5	6	7
The self-service phone kiosk performs exactly as I need	1	2	3	4	5	6	7
I intend to continue using this self-service phone kiosk for transactions in the future	1	2	3	4	5	6	7
I will keep using this self-service phone kiosk in the future	1	2	3	4	5	6	7
It is likely that I will use this self-service phone kiosk again	1	2	3	4	5	6	7
I am willing to recommend the use of self-service phone kiosk to my friends.	1	2	3	4	5	6	7
I would not recommend using this self-service phone kiosk option to my friends and relatives.	1	2	3	4	5	6	7
The likelihood that I would recommend this self-service phone kiosk to a friend is high.	1	2	3	4	5	6	7
Using the self-service phone kiosk is a good idea	1	2	3	4	5	6	7
Using the self-service phone kiosk is a wise decision	1	2	3	4	5	6	7
I like the idea of using the self-service phone kiosk	1	2	3	4	5	6	7

SECTION 2 – General information about your pilgrimage travel experience

Please circle the number that best describes your overall pilgrim experience.

1 = Strongly disagree; 2 = Disagree; 3 = Mildly disagree; 4 = Neither agree nor disagree; 5 = Mildly agree; 6 = Agree; 7 = Strongly agree

Questions	1	2	3	4	5	6	7
Overall, my experience during this pilgrim visit is rewarding	1	2	3	4	5	6	7
Coming to this holy place will improve my spiritual development	1	2	3	4	5	6	7
My visit to this sacred site enables me to obtain spiritual improvement	1	2	3	4	5	6	7
The atmosphere of this holy place is very pleasant	1	2	3	4	5	6	7
I am delighted being at this holy place to fulfil my religious obligation	1	2	3	4	5	6	7
This pilgrim experience made me feel relaxed and comfortable	1	2	3	4	5	6	7
I feel that this visit fulfils my spiritual well-being needs	1	2	3	4	5	6	7
I feel that this visit fulfils my mental well-being needs	1	2	3	4	5	6	7
This trip gives me a sense of authenticity	1	2	3	4	5	6	7
I feel refreshed in body, mind, and spirit by my pilgrim experiences	1	2	3	4	5	6	7
I believe pilgrimage creates feelings of peace and happiness	1	2	3	4	5	6	7

SECTION 3 – Your perceptions

Please circle the number that best reflects your perception

1 = Strongly disagree; 2 = Disagree; 3 = Mildly disagree; 4 = Neither agree nor disagree; 5 = Mildly agree; 6 = Agree; 7 = Strongly agree

My surrounding seemed crowded to me	1	2	3	4	5	6	7
This area is a little too busy	1	2	3	4	5	6	7
There is much traffic during my visit	1	2	3	4	5	6	7
I would feel pressed for time because others were waiting to use the self-service kiosk	1	2	3	4	5	6	7
I would feel rushed because others wanted to use the self-service option	1	2	3	4	5	6	7
I would feel the need to hurry when using a self-service kiosk because I would not want to keep other customers waiting	1	2	3	4	5	6	7
When using a self-service option, I have this feeling that I must hurry to complete the transaction	1	2	3	4	5	6	7
I like being able to see an employee while completing a self-service transaction	1	2	3	4	5	6	7
I feel more comfortable if an employee is close while I complete a self-service transaction	1	2	3	4	5	6	7
Having an employee present in self-service kiosk area enhances my service experience	1	2	3	4	5	6	7
Having a store's employee near the self-service kiosk makes me feel more confident about my transaction	1	2	3	4	5	6	7
I feel certain about how to effectively use the self-service kiosk	1	2	3	4	5	6	7
The steps in the process of using the self-service kiosk are clear to me	1	2	3	4	5	6	7
Usually there are clear instructions regarding how to use self-service option	1	2	3	4	5	6	7
I understand what I need to do to complete the self-service transaction	1	2	3	4	5	6	7
When I need phone related service, only self-service facilities are available	1	2	3	4	5	6	7
I have less freedom to choose a service-delivery mode when it comes to phone service	1	2	3	4	5	6	7
Telecommunication service provider imposes a self-service technology on me	1	2	3	4	5	6	7
I believe that the firm's decision to introduce the self-service phone kiosk would be acceptable	1	2	3	4	5	6	7
The firm was fair in setting up the self-service phone kiosk	1	2	3	4	5	6	7
Overall, the firm's decision to introduce the self-service option is reasonable	1	2	3	4	5	6	7

Why do you think this firm introduced the self-service phone kiosk? This is to...

Offer customers more service options	1	2	3	4	5	6	7
Make phone service transaction easier and faster	1	2	3	4	5	6	7
Make transaction less a hassle	1	2	3	4	5	6	7
Make transaction more fun for their customers	1	2	3	4	5	6	7
Enhance customer service	1	2	3	4	5	6	7
Lower their costs and increase their profits	1	2	3	4	5	6	7
Let customers do the work	1	2	3	4	5	6	7
Make even more money	1	2	3	4	5	6	7
Increase their turnover even more	1	2	3	4	5	6	7
Make more profits instead of serving customers	1	2	3	4	5	6	7

SECTION 4 – General information about you

Please circle the number that indicates your degree of agreement or disagreement:

1 = Strongly disagree; 2 = Disagree; 3 = Mildly disagree; 4 = Neither agree nor disagree; 5 = Mildly agree; 6 = Agree; 7 = Strongly agree

Questions	1	2	3	4	5	6	7
I commonly use lots of automated systems when dealing with other transactions	1	2	3	4	5	6	7
I do not have much experience using self-service kiosk	1	2	3	4	5	6	7
I often use self-service based technologies	1	2	3	4	5	6	7

Your education level?
1. High school graduate or below
2. Vocational
3. University graduate
4. Postgraduate level

In what age group are you?
1. 20–29
2. 30–39
3. 40–49
4. 50–59
5. 60 and above

Your gender:
1. Male
2. Female

Your current occupation?
1. Student
2. Company employee
3. Self-employed
4. Professional
5. Civil servant
6. Housewife/House husband
7. Retired
8. Others: _____

Thank you for your time and co-operation in furthering this research endeavour.

Appendix G: Field Survey the Arabic Version

مسح بحثي

الغرض من هذه الدراسة هو فهم تجربة الحاج و كيفيه استهلاك تكنولوجيا الخدمة الذاتية. يرجى التفكير في استخدام جهاز خدمة الهاتف الذاتية وتقييم ردودك وفقاً للمقاييس المتوفرة. مع التأكيد من أن جميع الردود سرية للغاية وستبقى مجهولة المصدر. بالإضافة الى ذلك نود ان نعلمك انه ومن خلال إكمال هذا الاستبيان، فإنك تشير إلى موافقتك على المشاركة في هذا البحث.

أسئلة الفحص:

هل جربت جهاز خدمة الهاتف الذاتية الذي تم إطلاقه حديثاً خلال زيارة حجك هذا؟ يرجى وضع علامة (√) مرة واحدة فقط عند الاقتضاء.

نعم ☐	إذا كانت الإجابة بنعم ، يرجى متابعة الإجابة عن هذا الاستبيان.
لا / غير متأكد ☐	إذا كان الجواب لا ، فيرجى إعادة هذا الاستبيان إلينا

هل تعيش في مكة؟   نعم   لا (إذا كان الجواب لا، ما هي جنسيتك)؟ _____

القسم 1 ـ تقييمك حول استخدام جهاز خدمة الهاتف الذاتية

يرجى وضع دائرة حول الرقم الذي يعكس تقييمك لاستخدام جهاز خدمة الهاتف الذاتية.

1 = لا أوافق بشدة، 2 = لا أوافق، 3 = غير موافق 4 = لا أوافق ولا أرفض، 5 = موافق قليلاً ؛ 6 = موافق 7 = موافق بشدة

7	6	5	4	3	2	1	الأسئلة
7	6	5	4	3	2	1	بشكل عام ، تجربتي مع جهاز خدمة الهاتف الذاتية ممتعة
7	6	5	4	3	2	1	عموما، أود أن أقيم تجربتي مع جهاز خدمة الهاتف الذاتية مناسبه وفي مكان مواتي
7	6	5	4	3	2	1	أشعر بالرضا عن استخدام جهاز خدمة الهاتف الذاتية
7	6	5	4	3	2	1	من المفيد استخدام جهاز خدمة الهاتف الذاتية
7	6	5	4	3	2	1	المساعدة متاحة لي عندما أحتاج إلى مساعدة لتقنية المعاملات باستخدام جهاز خدمة الهاتف الذاتية
7	6	5	4	3	2	1	تتوفر تعليمات متخصصة لي بشأن المعاملات باستخدام جهاز خدمات الهاتف الذاتية
7	6	5	4	3	2	1	عندما أحتاج إلى مساعدة أثناء المعاملة ، الموظف المختص دائما يكون متاحا لتقديم المساعدة
7	6	5	4	3	2	1	لدى جهاز خدمات الهاتف الذاتية الذي أستخدمه تعليمات واضحة وسهل اتباعها.
7	6	5	4	3	2	1	يمكنني الحصول على خدمة جهاز خدمات الهاتف الذاتية بسلاسة
7	6	5	4	3	2	1	يمكنني اتمام عمليتي في وقت قصير باستخدام جهاز خدمات الهاتف الذاتية
7	6	5	4	3	2	1	عملية الخدمة في جهاز خدمة الهاتف الذاتية التي استخدمها سلسة
7	6	5	4	3	2	1	من السهل الوصول إلى جهاز خدمة الهاتف الذاتية
7	6	5	4	3	2	1	يسمح لي الموقع المتواجد فيه جهاز خدمة الهاتف الذاتية للهواتف الجوالة البدء في تحويلات بسهولة
7	6	5	4	3	2	1	مكان جهاز خدمة الهاتف الذاتية الملائم للعملاء اكثر راحة عند الاستخدام
7	6	5	4	3	2	1	يمكنني الوصول بسهولة إلى اجهزة خدمة الهاتف الذاتية
7	6	5	4	3	2	1	يعتبر تصميم جهاز خدمة الهاتف الذاتية جذابا من الناحية الجمالية
7	6	5	4	3	2	1	يبدو على جهاز خدمة الهاتف الذاتية استخدام احدث التكنولوجيا
7	6	5	4	3	2	1	يمكن التعرف بسهولة على ايقونات الشاشة
7	6	5	4	3	2	1	تبدو الايقونات على الشاشة مألوفة
7	6	5	4	3	2	1	يخاطب جهاز خدمة الهاتف الذاتية حاجاتي الخاصة
7	6	5	4	3	2	1	لدى جهاز خدمة الهاتف الذاتية سمات مخصصة لي
7	6	5	4	3	2	1	يوفر جهاز خدمة الهاتف الذاتية خدمات مخصصة
7	6	5	4	3	2	1	اعتقد أن معاملة معلوماتي الشخصية تتم بسرية عند استخدام جهاز خدمة الهاتف الذاتية
7	6	5	4	3	2	1	اشعر بالأمان عند تقديم المعلومات ذات الصلة عند استخدام جهاز خدمة الهاتف الذاتية
7	6	5	4	3	2	1	اشعر بالأمان فيما يخص تحويلاتي في جهاز خدمة الهاتف الذاتية
7	6	5	4	3	2	1	يوفر جهاز خدمة الهاتف الذاتية تجربة تحويل آمنة
7	6	5	4	3	2	1	بشكل عام، استخدام جهاز خدمة الهاتف الذاتية آمن
7	6	5	4	3	2	1	بشكل عام، أنا راض عن جهاز خدمة الهاتف الذاتية
7	6	5	4	3	2	1	يتخطى جهاز خدمة الهاتف الذاتية التوقعات
7	6	5	4	3	2	1	يؤدي جهاز خدمة الهاتف الذاتية بالضبط كل ما أحتاجه
7	6	5	4	3	2	1	أنوي استكمال استخدام جهاز خدمة الهاتف الذاتية للتحويلات المستقبلية
7	6	5	4	3	2	1	سوف استمر في استخدام جهاز خدمة الهاتف الذاتية في المستقبل
7	6	5	4	3	2	1	من المحتمل أنني سوف استخدم جهاز خدمة الهاتف الذاتية مرة أخرى
7	6	5	4	3	2	1	أنا مستعد لأن أوصي اصدقائي باستخدام جهاز خدمة الهاتف الذاتية
7	6	5	4	3	2	1	أن أوصي اصدقائي وأقاربي باستخدام خيار جهاز خدمة الهاتف الذاتية

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7	6	5	4	3	2	1	
7	6	5	4	3	2	1	احتمالية أن أوصي اصدقائي باستخدام جهاز خدمة الهاتف الذاتية عالية
7	6	5	4	3	2	1	استخدام جهاز خدمة الهاتف الذاتية هو فكرة جيدة
7	6	5	4	3	2	1	استخدام جهاز خدمة الهاتف الذاتية هو قرار حكيم
7	6	5	4	3	2	1	لحب فكرة استخدام جهاز خدمة الهاتف الذاتية

القسم 2 ـ معلومات عامة حول تجربة السفر للحج الخاصة بك

يرجى وضع دائرة حول الرقم الذي يوفر أفضل وصف لتجربة الحج الخاصة بك

1 = لا أوافق بشدة، 2 = غير موافق 3 = لا أوافق إلى حد ما، 4 = لا أوافق ولا أرفض، 5 = موافق قليلاً ؛ 6 = موافق 7 = موافق بشدة

7	6	5	4	3	2	1	الأسئلة
7	6	5	4	3	2	1	بشكل عام، تجربتي خلال زيارة الحج هذه مرضيه
7	6	5	4	3	2	1	القدوم إلى هذا المكان المقدس سيحسن تطوري الروحي
7	6	5	4	3	2	1	زيارتي لهذا الموقع المقدس تمكنني من الحصول على التحسن الروحي
7	6	5	4	3	2	1	جو هذا المكان المقدس لطيف للغاية
7	6	5	4	3	2	1	يسعدني أن أكون في هذا المكان المقدس لأني بالتزامي الديني
7	6	5	4	3	2	1	لقد جعلتني تجربة الحج هذه أشعر بالراحة والاسترخاء
7	6	5	4	3	2	1	أشعر أن هذه الزيارة تفي باحتياجاتي الروحية
7	6	5	4	3	2	1	أشعر أن هذه الزيارة تفي باحتياجاتي العقلية
7	6	5	4	3	2	1	هذه الرحلة تعطيني شعور بالروحانية
7	6	5	4	3	2	1	أشعر بالانتعاش في الجسد والعقل والروح من خلال تجربة الحج
7	6	5	4	3	2	1	اعتقد أن الحج يخلق مشاعر السلام والسعادة

القسم 3 ـ تصوراتك

يرجى وضع دائرة حول الرقم الذي يعكس مفهومك بشكل أفضل

1 = لا أوافق بشدة، 2 = غير موافق 3 = لا أوافق إلى حد ما، 4 = لا أوافق ولا أرفض، 5 = موافق قليلاً ؛ 6 = موافق 7 = موافق بشدة

7	6	5	4	3	2	1	الأسئلة
7	6	5	4	3	2	1	تبدو البيئة المحيطة مزدحمة بالنسبة لي
7	6	5	4	3	2	1	هذه المنطقة مشغولة قليلا
7	6	5	4	3	2	1	هناك الكثير من الازدحام المروري خلال زيارتي
7	6	5	4	3	2	1	كنت أشعر بالضغط على الوقت لأن الآخرين كانوا ينتظرون استخدام اجهزة خدمة الهاتف الذاتية
7	6	5	4	3	2	1	كنت أشعر باستعجال الوقت لأن الآخرين ينتظرون استخدام اجهزة خدمة الهاتف الذاتية
7	6	5	4	3	2	1	كنت أشعر بالحاجة إلى التعجيل عند استخدام اجهزة الخدمة الذاتية لأنني لا أريد أن أبقي العملاء الآخرين منتظرين
7	6	5	4	3	2	1	عند استخدام خيار الخدمة الذاتية ، لدي شعور يأتيني يجب أن أسرع لإتمام التحويل
7	6	5	4	3	2	1	لحب التمكن من رؤية موظف أثناء اعمال معاملة الخدمة الذاتية
7	6	5	4	3	2	1	أشعر براحة أكبر إذا كان الموظف قريبا بينما اعمل معاملة الخدمة الذاتية
7	6	5	4	3	2	1	إن وجود موظف في منطقة اجهزة الخدمة الذاتية يعزز تجربتي في الخدمة
7	6	5	4	3	2	1	وجود موظف في المتجر بالقرب من اجهزة الخدمة الذاتية يجعلني أشعر بمزيد من الثقة بشأن معاملاتي
7	6	5	4	3	2	1	أشعر بالثقة حول كيفية استخدام جهاز الخدمة الذاتية بفعالية
7	6	5	4	3	2	1	الخطوات في عملية استخدام جهاز الخدمة الذاتية واضحة بالنسبة لي
7	6	5	4	3	2	1	عادة ما تكون هناك تعليمات واضحة بشأن كيفية استخدام خيار الخدمة الذاتية
7	6	5	4	3	2	1	أعي ما أحتاج إلى القيام به لاكمال معاملة الخدمة الذاتية
7	6	5	4	3	2	1	عندما احتاج إلى خدمة مرتبطة بالهاتف ، أتوقف فقط مرفق الخدمة الذاتية
7	6	5	4	3	2	1	لدي حرية أكثر في اختيار وضع تقديم الخدمة عندما يتعلق الأمر بخدمة الهاتف
7	6	5	4	3	2	1	يفرض موفر خدمة الاتصالات السلكية واللاسلكية تقنية الخدمة الذاتية علي
7	6	5	4	3	2	1	اعتقد أن قرار الشركة بتقديم جهاز هاتف الخدمة الذاتية سيكون مقبولاً
7	6	5	4	3	2	1	كانت الشركة عادلة في إنشاء جهاز خدمة الهاتف الذاتية
7	6	5	4	3	2	1	بشكل عام ، قرار الشركة بتقديم خيار الخدمة الذاتية معقول
							لماذا اعتقد أن هذه الشركة خدمت جهاز خدمة الهاتف الذاتية؟ بسبب ...
7	6	5	4	3	2	1	تقديم المزيد من خيارات الخدمة للعملاء
7	6	5	4	3	2	1	جعل معاملة خدمة الهاتف أسهل وأسرع
7	6	5	4	3	2	1	جعل المعاملات أقل من حيث المتاعب
7	6	5	4	3	2	1	جعل المعاملة أكثر متعة لعملائها

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7	6	5	4	3	2	1	
7	6	5	4	3	2	1	تعزيز خدمة العملاء
7	6	5	4	3	2	1	خفض تكاليفها وزيادة أرباحها
7	6	5	4	3	2	1	جعل العملاء يقومون بالعمل
7	6	5	4	3	2	1	الحصول على أموال اكثر
7	6	5	4	3	2	1	زيادة عائداتها اكثر
7	6	5	4	3	2	1	تحقيق المزيد من الأرباح بدلاً من خدمة العملاء الاعتيادية

القسم 4 ـ معلومات عامة عنك

برجى وضع دائرة حول الرقم الذي يشير إلى درجة موافقتك أو عدم موافقتك:

1 = لا أوافق بشدة. 2 = غير موافق 3 = لا أوافق إلى حد ما. 4 = لا أوافق ولا أرفض. 5 = موافق قليلاً ؛ 6 = موافق 7 = موافق بشدة

7	6	5	4	3	2	1	الأسئلة
7	6	5	4	3	2	1	أنا عادة استخدام الكثير من الأنظمة الخدمة الذاتية عند التعامل مع أي معامله اخرى
7	6	5	4	3	2	1	ليس لدي الكثير من الخبرة في استخدام جهاز الخدمة الذاتية
7	6	5	4	3	2	1	كثيرا ما استخدم التقنيات القائمة على الخدمة الذاتية

ما هو مستوى تعليمك؟
1. ثانوية عامة أو أقل
2. مهني
3. جامعي
4. دراسات عليا

الجنس:
1. ذكر
2. أنثى

من أي مجموعه عمريه للنمي؟
1. 20–29
2. 30-39
3. 40-49
4. 50-59
5. أكبر من 60

ما هي وظيفتك الحالية؟
1. طالب
2. موظف بشركة
3. اعمال حرة
4. متخصص
5. خدمة مدنية
6. ربا/ربة منزل
7. متقاعد
8. أخرى: _____

نشكرك على وقتك وتعاونك في تعزيز هذا البحث.