Multichannel service retailing: Examining the moderating effect of customer characteristics on the relationship between channel performance satisfaction and behavioural intention

By

Afrah Yassin Alsomali

Submitted in accordance with the requirements for the degree of

Doctor of philosophy

The University of Leeds

Leeds University Business School

September, 2013

The candidate confirms that the work submitted /her own and that appropriate credit has been given where reference has been made to the work of others.

This copy has been supplied on the understanding that it is copyright material and that no quotation from the thesis may be published without proper acknowledgement.

Acknowledgement

Firstly, I would like to thank ALLAH the Almighty for his countless blessings and for giving me the strength and patience to complete my research.

I am deeply indebted to my supervisor Desmond Thwaites, for providing me with valuable feedback and encouraging me throughout my studies. I would also like to thank my second supervisor Aristeidis Theotokis for his advice and assistance, especially with the data analysis.

I would like to thank my sponsor, the Saudi Ministry of High Education, for providing me with the necessary financial support through the four years of my PHD; also my thanks are extended to all my colleagues in the PhD programme.

Lastly but by no means the least, my deep gratitude and thanks to my family, my mum and dad and siblings for your unconditional love and support throughout this undertaking . To my beloved husband Adam, thank you for believing in me and supporting me with your consistent encouragement, love and patience.

Abstract

The advent of multiple channel strategies motivate service providers, especially banks, to link their traditional existing channels (i.e., the service provider's employees) to more innovative channels such as the Internet; in an attempt to increase profitability by retaining their existing customers and attracting new potential customers. The purpose of the current research is to identify factors which influence customers' satisfaction with the performance of a service provider's multiple channel's which might lead to desirable behavioural outcomes such as staying loyal. In particular, this study focuses on the interaction affects personality traits (i.e., the five-factor model of personality) might have on the relationship between satisfaction with multichannel performance and behavioural intention, and how significant these interaction effects are in enhancing or weakening this relationship.

Data was collected primarily using a questionnaire which was completed by a sample of 380 chosen customers of various Saudi banks in the city of Jeddah. Results obtained from performing structural equation modelling indicate that customers' satisfaction with both employee channel performance and on-line banking channel performance have a positive significant effect on their behavioural intention. In addition, existence of channel synergies was confirmed; whereby customers' satisfaction with the bank employee's fact-to-face performance leads to a positive attitude towards the channel and, in turn, this positive attitude extends to the on-line banking channel. Findings have also revealed a positive moderating effects that the extravert trait has on enhancing the positive relationship between their satisfaction with the online channel's performance and behavioural intention, whilst, at the same time displaying negative effect on satisfaction with the employee channel's performance and behavioural intention, which

indicates that extravert individuals from the study sample are adventurous and are in favour of trying new ways of performing their banking activities. Furthermore, both neuroticism trait and openness to experience were found having a negative moderating effect on customers' satisfaction with the employee channel's performance and behavioural intention. However, no significant interaction effects were detected for these traits on satisfaction with online banking and behavioural intention. As for technology readiness, no moderating effects were found with regards to this relationship. Finally, there are several managerial implications provided by the study as well as direction for future research.

Table of Content

Lists of Figures

XI

Lists of Tables

Abbreviation

AVE	Average Variance Extracted
CFA	Confirmatory Factor Analysis
FFM	Five Factor Model
PLS	Partial Lester Square
SEM	Structural Equation Modelling
SPSS	Statistical Package for Social science
SST	Self Service Technology
TR	Technology Readiness
TRA	Theory of Reasoned Action

Chapter 1: Introduction

1.1 Introduction

The present chapter highlights the importance of carrying out the current research by covering the following topics: The section entitled Research Problem provides the justification for conducting this research by identifying gaps in the existing body of literature. Research questions are outlined and the expected objectives are explained. The next section, Research Methodology encompasses the research setting, data collection and data analysis. The chapter also provides the expected contribution of the research. Finally, this chapter ends with a summary of the thesis structure.

1.2 Research Problem

The widespread of internet distribution and advanced developments in information technology, have changed the way different industries and businesses operate. More retailers and service providers are shifting from a single channel strategy, such as traditional brick and mortar firms who have a physical presence and conduct face-to-face transactions, or purely a virtual existence, to multichannel strategies which allow offline and online operations to be linked (Yang et al., 2011; Wallace et al., 2004). What a multichannel service provider or a retailer is aiming for is cross-channel synergies. These synergies suggest reaching out to as many customers as possible, attracting new customers and retaining old ones (Wallace et al., 2004). An example of how this may be achieved is through reaching out to new customers by employing the online channel and increasing profits by wisely distributing and allocating supplies through an array of different channels, which would result in increased purchasing in each channel and the reduction of costs (Kollmann et al., 2012; Montoya-Weiss et al., 2003).

However, to achieve that aim, it is important to gain knowledge of the factors influencing customer evaluation of, and preference for, using particular channels and assisting these factors to enable alternative channels to work in a complementary manner, side by side (Montoya-Weiss et al., 2003). The implementation, of multichannel strategies can provide firms with a number of opportunities, such as, responding to competition, increasing their market coverage and obtaining additional revenue from their existing customers who utilize the firm's other channels (Yang et al., 2011; Wallace et al., 2004). Moreover, studies have shown that multichannel customers (i.e., a customer who shops by utilizing the firm's multiple channels) are more active, have a high volume of purchasing and are more loyal than other customers (Neslin and Shankar, 2009; Konuş et al., 2008; Wallace et al., 2004).

This perspective has motivated retailers and service providers to be in favour of multi-channel strategies. As for customers, the multichannel approach has given them the option to choose from a variety of channels which belong to the same service provider (rational exchange environment) and the opportunity to use additional channels and more service outputs which are convenient, reliable and time-saving (Van Birgelen et al., 2006; Montoya-Weiss et al., 2003). Examples of service firms which operate in this relational exchange environment are retail banks, education, insurance and health care (Montoya-Weiss et al., 2003).

In today's market environment, retail marketers are especially encouraged to utilize a customer-centric approach in addressing issues concerning customers, such as what might drive their channel choice, or which products and services are better obtained from a particular channel, rather than simply focusing on the channel itself (Schoenbachler and Gordon, 2002).

Consequently, research in the multichannel literature has given considerable attention to those aspects which drive and influence customer channel preference. Schoenbachler and Gordon (2002) presented a model of multichannel consumer shopping behaviour, Montoya-Weiss and Grewal (2003) have investigated the determinants of online channel use and consumer overall satisfaction with the service provider and (Inman et al., 2004) introduced a model which linked channel category associations with both channel share of volume and customer geodemographic variables. Finally, (Warrington et al., 2007) investigated the effects customer experiences have on repurchase intention for the retailer as well as for the channel.

Although, the important role customer satisfaction plays as an indicator of channel performance and as a predecessor of behavioural intention is well documented in the service literature (Reynolds and Beatty, 1999; Oliver, 1997), Van Birgelen et al. (2006) have stated that studies which have specifically addressed the relationship between customer satisfaction with channel performance and behavioural intention in the multichannel context are rare. An exception would be Shankar et al.'s (2003) study. On the other hand, the existing marketing literature has been criticised by Homburg and Giering (2001) on the subject of the relationship between satisfaction and loyalty, in that it has limited itself to the theoretical argument. There are also very few studies that have empirically tested the effect of customers' personality traits on the relationship between satisfaction and loyalty (Vázquez-Carrasco and Foxall, 2006). In this context, Baumgartner (2002) found that up to March 2001 the number of articles in the journals of consumer research that had titles covering subjects related to personality, self-concept and customer differences were limited to 71 only (Vázquez-Carrasco and Foxall, 2006). This limitation of studies in the area has continued to date.

1.3 Research Questions and Objectives

Previous research in different contexts has recognized that customer characteristics have a moderating effect which influences the level of satisfaction and their consequential behaviour. Customers' responses differ depending on their personality traits and this variation leads to an increase or decrease in satisfaction levels (Mägi, 2003; Homburg and Giering, 2001; Mittal and Kamakura, 2001). As a result, this research is positioned to fill the gap in the literature and bring more insight into the relationship between customer satisfaction with employee and online channels performance and behavioural intention, through investigating the moderating effect customer personality traits have on this relationship. Investigating, multichannel customers' personality trait is motivated by:

First, the fact that interest in linking personality, especially the five factor model (FFM) of personality, which is used to predict individuals' differences (Devaraj et al., 2008) and technology readiness commonly used as a predictor of people usage of technology-based services (Parasuraman, 2000), to the use and adoption of self-service technology, in particular internet channel, is considered to be a fairly recent phenomenon in comparison with organisational behaviour, where interest in personality and how it influences other behaviours is long established in the literature. For example, neuroticism and consciousness was found to be associated with career success (McElroy et al., 2007; Judge et al., 2006). Furthermore, review of the extant literature suggests that five factor model of personality and technology readiness have not been investigated in the multichannel literature. Second, neuroticism and extraversion are two predominant traits which are present in every personality measure; (Ajzen and Fishbein, 1980) have referred to them as external variables in the theory of reasoned action which represents the fundamental base of the current study.

Neurotic people are more likely to experience a lot of problems such as negative moods, anxiety, depression, irritability and fear (Judge et al., 2006). As a result, they tend to express negative attitude with online banking. The importance of the extraversion trait is that it is related to experience of positive emotions. This trait consists of not only sociability, but extravert individuals are also believed to be active, adventurous and assertive (Judge et al., 2006; Watson and Clark, 1997). Consequently, it would be expected that they are satisfied with both offline (employee) and online banking channels.

Openness to experience is characterized by intelligence and unconventionality; individuals who are open to experience are curious and willing to try out new ideas (McElroy et al., 2007; Judge et al., 2006), which makes this trait relevant to the online banking channel as the researcher expects open individuals to express positive attitudes and to be attracted to new channels and conduct their banking activities online instead of the traditional ways. Finally, with regard to technology readiness (TR), in terms of linking customer satisfaction with online banking, previous research (Liljander et al., 2006; Lin and Hsieh, 2006; Yen, 2005), has advocated that customers with high TR, who are willing to use and adopt technology based services, are more likely to find their experience pleasant and satisfactory than those with lower TR.

In light of the previous discussion it is clear that the advent of multiple channels has led to the demand for a re-examination of the link between customer satisfaction with service retailers' offline and online channels and behavioural intention. An examination focuses on the interaction effects of customer personality and how these interactions could lead to strengthening or weakening this relationship, in finer detail. This leads to the research questions and objectives.

The research questions are as follows:

1- Do the Big Five personality trait variables moderate the relationship between customer satisfaction with retailer banks' offline and online channels' performance and behavioural intention? Which of these traits are more significant for offline and online channels and behavioural intention?

2- Is technology readiness a moderator of the relationship between customers satisfaction with online channel banking performance and behavioural intention?

Answering these research questions requires the following objectives to be addressed:

1- To re-examine the relationship between customer satisfaction and behavioural intention in the Saudi retail banking environment, as well as the relationship between retail banks' employee and online channels.

2- To examine the moderating effects of extraversion, neuroticism, and openness to experience on the relationship between customers' satisfaction with banks' employee and online channels and their behavioural intention.

3- To examine whether or not technology readiness has a moderating effect on the link between customer satisfaction and behavioural intention.

4- To identify the direction of the moderation effects once detected and if they lead to strengthening or weakening the examined relationships.

1.4 Research Methodology

1.4.1 Research Setting

The kingdom of Saudi Arabia was chosen as the context of this research. This came about as a result of the researcher's attempt to extend the scope of the multichannel literature to include the developing countries in the Middle East and Saudi Arabia in particular as most of the studies are conducted in western countries (Falk et al., 2007; Van Bigelen et al., 2006; Wallace et al., 2004). Studies carried out in the Kingdom of Saudi Arabia (for example: Mahdi, 2012; Alsomali et al., 2009; Sohail and Shaikh, 2007) have focused predominantly on factors influencing online banking, such as identifying factors which prevent Saudi customers from adopting online banking, and those which influence online banking users' evaluation of the online banking service quality.

None of these studies, or any other studies for that matter, have investigated customers' characteristics, in particular personality traits, in the multichannel banking environment in Saudi Arabia or in any of the gulf countries. Moreover, this is the only work which presents and tests a model of multichannel service retailing, incorporating some of the traits from Big Five model of personality and technology readiness index as moderating variables (with scales) translated into Arabic and questionnaires distributed to customers in a different culture.

In addition, Saudi Arabia commercial banks are the chosen context for this study for the following reasons: First, in Saudi Arabia commercial banking is the second largest industry and plays an important role in contributing to the country's economic growth, after oil and petroleum related industries which the Saudi economy greatly depends upon (Mahdi, 2012). The responsibility of monitoring and supervising banks' activities falls on the Saudi Arabia Monetary Agency (SAMA) (SAMA, 2013).

Second, the banking sector in Saudi Arabia is among the first industries which utilises different channels such as branches, ATMs, telephone banking and, recently, online banking to their customers (Sohail and Shaikh, 2007). Third, the Saudi government has undertaken ongoing development strategies which aim to improve the country's communication and information technology infrastructure (Saudi Arabia-ITU, 2003). As a result, and according to Internet World Stats (2012), the number of internet users in Saudi Arabia has risen from 200,000 in December, 2000 up to 13,000,000 in June, 2012. The internet service is provided and controlled by the King Abdulaziz City of Technology (KACT) (Alsomali et al., 2009).

1.4.2 Targeted Respondents

Since this study is examining the effects that customers' characteristics have on their satisfaction with multichannel performance and their behavioural intention in a banking environment, the targeted respondents for this study were Saudi customers who have an account in any of the operating Saudi banks in the city of Jeddah in the western region. Jeddah is the second largest city after the capital Riyadh. The approximate population of the city is 3.4 million (Jeddah Municipality, 2013). All Saudi banks have more than one branch spread across the different areas of the city.

1.4.3 Data Collection

To construct a questionnaire, the researcher has viewed the relative literature to identify appropriate scales for the study. Once the questionnaire was constructed it was examined by the researchers' supervisors and changes were made where necessary. Then pilot study was carried out in the United Kingdom and 50 questionnaires were distributed among Saudi students at the University of Leeds and the University of Sheffield who are account holders in Saudi banks.

The questionnaire was then back translated into Arabic and distributed among the study sample. Questionnaires were distributed randomly to customers in public universities, beauty salons, private companies, hospitals and in Aljazira and Saudi British bank (SABB) branches. 500 questionnaires were distributed and 405 were returned. This was reduced to 380 following cleaning of the data, representing a response rate of (76%).

1.4.4 Data Analysis

Data analysis started with rigorous screening procedures, which began with carefully checking data accuracy for any errors, detecting outliers, handling missing data and testing for univariate and multivariate normality assumptions (Hair et al., 2010; Tabachnick and Fidell, 2007). The means of carrying out these procedures was by utilizing the SPSS 19 computer program (Bryman and Cramer, 2011). This was followed by the employment of PLS (Partial Least Square) computer program using the structural equation modelling method (SEM), where confirmatory factor analysis was utilized, first to evaluate the measurement model's psychometrics properties by assessing each scale's reliability (i.e., internal consistency) and validity (i.e., convergent validity and discriminant validity); and second the structural model to test the proposed hypothesis. A fuller account of the methodological approaches is available in chapter 4.

1.5 Expected Research Contribution

1.5.1 Theoretical implications

The ways this research can contribute to theory are:

1) The foundation of the multichannel model that this study has introduced to explain the relationship between customer satisfaction with banks' multiple channels and the customers' consequential behavioural intention is based on the theory of reasoned action (Fishbein and Ajzen, 1975). Customer overall satisfaction in this study is viewed as attitude which, according to the theory, is the direct predictor of behavioural intention, which then influences behaviour. In addition, the link between customers' satisfaction and behavioural intention did not receive enough attention in the multichannel literature (Van Birlegen et al., 2006).

2) Although some studies in the multichannel literature, has recognised the important role psychological traits play in categorising customers into different segments (i.e., Konus et al., 2008; Keen et al., 2004). Even so, the Big Five model of personality, which is used to predict peoples' differences and, which is considered a comprehensive model which covers most personality traits (Judge et al., 2006; McCrae and Costa, 1999), has not been used as a base of segmenting multichannel customers. The same could be said for the technology readiness index, although it predicts individuals' attitudes towards using and adopting technologies (Parasuraman, 2000), but in multichannel environment, it has not been used to identify customers who are more likely to utilize retailer's technology-based channels.

Consequently, this research will contribute to the literature by presenting a multichannel model where customers' personality traits are modelled as moderators of their satisfaction with offline and online channels' performance and behavioural intention. Furthermore, this research contributes to the theory by re-testing relationships, which were previously examined, such as the relationship between satisfaction with offline and

online channels and behavioural intention and the relationship between offline online channels (channel synergy) in a new context of Saudi Arabia. These relationships are tested for the first time in Saudi Arabia, a developing country, as previous multichannel research has only been conducted in western countries.

1.5.2 Managerial Implications

This research is expected to enhance managers' understanding about customers' satisfaction with multichannel channels' performance and the consequential behaviour intention this could lead to. This is done by taking customers' different personalities into consideration when creating or developing any strategies will help mangers to boost customers' favourable intention and as result encourage repeat purchasing and staying loyal to their banks. Also, gaining this knowledge will aid managers to allocate sufficient resources to promoting and educating customers about their new services products for each channel by segmenting customers depending on their personalities.

1.6 Thesis Structure

This thesis has seven chapters and they are organized as follow;

Chapter one is the introductory chapter which sets the scene for the research and provides the justification of the underlying reasons for carrying out the research. It has highlighted the research problem, questions and summary of the research methodology, as well as the expected contributions it will make to the literature.

Chapter two encompass the review of the multichannel literature, together with satisfaction and behavioural intention, and the five factor model of personality. Special attention is given to works which focus on extraversion, neuroticism and openness to experience and technology readiness.

Chapter three has presented the theoretical background, including an introduction to the theory of reasoned action, the practical application of the theory and the critiques that the theory has faced. Next, the study proposed a conceptual model and formulated hypotheses as a basis for the study.

Chapter four is the methodology chapter which provides in detail the research stages and covers the research philosophy, approach, strategies, data collection methods and data analysis.

Chapter five provides the steps which the study followed with regard to analysis of the data obtained from the questionnaires.

Chapter six covers the discussion and interpretation of the obtained results.

Chapter seven presents the research conclusions and includes an overview of the study findings, contributions to theory and practical implications for managers, limitations and recommendations for future research**.**

1.7 Conclusion

Providing information about how customers' satisfaction with the performance of banks' multiple channels might lead to building important favourable behavioural intention, for example staying in a relationship with a bank, even when alternatives are available. It is equally important to understand how different customers behave and which channels strengthen their satisfaction with channel performance and, as result, their favourable behavioural intention as well. In addition it is valuable to know which channels' performance they are less satisfied with and could as a consequence, weaken or lead to expressing a negative behavioural intention. The availability of such information will add to the service providers' knowledge and can help in reforming channel strategies in order to differentiate themselves from competitors and fulfil their goals by attracting new customers, retaining existing customers and increasing their profitability.

In conclusion, the chapter has presented the research problem and identified the gaps in the literature. It has also covered the research questions and outlined the research methodology, specifically the targeted respondents, data collection and data analysis. Moreover, the expected research contribution has been explained and the thesis structure was also presented.

Chapter 2: Literature Review

2.1 Introduction

This chapter embodies a literature review of previous studies relating to the current research. The chapter is arranged into sections, which cover the main constructs of the study. Each section is further sub-divided and concludes with a summary. The chapter starts with an introduction to service marketing, then provides a review of customer satisfaction definitions, and draws comparisons between overall satisfaction and encounter-specific satisfaction. This is followed by a review of the relevant literature pertaining to satisfaction and its behavioural consequences.

Second, the multichannel literature will be reviewed in detail. The third section covers potential moderators in the study. Firstly, the five-factor model of personality is introduced and discussion of the consumer and information technology literature in relation to the usage of the big-five model of personality is provided. That will be followed by the second moderator technology readiness (TR), and will include development of TR index, and review some of the studies that employed this factor in investigating consumer attitudes towards self-service technologies.

2.2 Customer Satisfaction Literature

This section is organized into two parts: (1) an introduction to service marketing as the research will be conducted in a service banking setting. Second, an introduction to self-service technology will be provided, and that will include sections of technology acceptance and benefits of using self-service technology to both service providers and customers. Third, the different types of service in terms of complexity and routine and non-routine situations are discussed. (2) This part encompasses a definition of customer satisfaction, and draws a comparison between overall satisfaction and encounter-

specific satisfaction; followed by a review of the previous literature pertaining to satisfaction and behaviour intention. Finally, this section is concluded with a summary.

2.2.1 Introduction to service marketing

Service marketing has been gaining recognition and the need to develop its strategies and address issues related to the challenges facing this market is becoming even more important in today's markets. That is because of the massive growth of different service industries and the importance service industries present to economies worldwide. In the European Union countries, for example, service industries are responsible for 73% of gross domestic product (GDP) and employment (Wilson et al., 2013).

The scope of marketing literature in the past concentrated on customer retention as an essential source of customer value. Arguments circulated around the fact that attracting new customers cost typically higher than retaining the existing ones and that the old customers generated more profit in the long-term for the firm. These suggestions have motivated researchers to direct their interest towards studying purchase intention and the antecedents of consumer loyalty (Bolton et al., 2004).

As for customer satisfaction, it has been the centre of interest to researchers and marketers in different industries. Likewise, academics in the financial service industry have paid considerable attention to customer satisfaction, investigating its antecedents and consequences. Retail banking literature has illustrated evidence in which customer satisfaction is found to influence behaviour intention by generating positive word of mouth, willingness to pay premium price and cross buying of service products (Arbore and Busacca, 2009). Furthermore, investigation results have shown consistency with the growing body of research that supports the positive effect customer satisfaction has on a firm's profitability (Arbore and Busacca, 2009).

Similarly, in banking literature, interest in distribution channels has increased, and it has been receiving considerable attention from academics and practitioners in this field (Alsomali et al., 2009; Khalfan et al., 2006; Al-Ashban and Burney, 2001). It is generally accepted that customers tend to be loyal to their main banks (Methlie and Nysveen, 1999). However, with the arrival of e-commerce and emerging new distribution channels (online banking) it was necessary for firms as well as banks to transform their traditional business models, to new ones which can face the changes in the market place. These new business models are expected to make fundamental changes to the banks' proposition values and will construct new value chains in the banks (Methlie and Nysveen, 1999).

Finally, since the customer is at the centre of any business strategy, the market is moving towards adopting a customer-centric approach. This requires banks to identify how these new value proposals meet the customers' behaviour changes online. Rayport and Sviokla (1994) stated that the three fundamental aspects of customer value source are: firstly, content which is related to the performance of the product or the service, secondly, the channel which is used to deliver the service or product to the customer, and finally, the way in which the product or service is delivered to the customer (Methlie and Nysveen, 1999; Rayport and Sviokla, 1994).

2.2.1.1 Introduction to Self-service technology

There has been a significant growth in adopting technology-based service delivery by service firms in the past decade (Dabholkar and Bagozzi, 2002). Moreover, this technology implementation has been widely embraced in different industries and businesses, including the financial industry (Durkin et al., 2008). The consequences of using technology have led to the emergence of new channels, which now take part in forming service delivery (Bitner et al., 2000). Technology based self-service or (SST)

delivery could be on-site or off–site. Self-scanning in libraries and grocery stores, touch screen in department stores and self-service fuel dispensing are examples of on-site options; while, phone service, online shopping and banking to represent some of the off-site options (Simon and Usunier, 2007; Dabholkar and Bagozzi, 2002). This means that in the banking sector, which is the focus of this study, the implementation of self-service technology can be seen in automated teller machines, online-banking and phone-banking as additional channels which are added to the bank's traditional channels in delivering service products to customers.

2.2.1.2 Technology acceptance

The internet's ability to provide massive amounts of information to customers, in an efficient manner with just a few clicks, and at a low cost from anywhere and at any time which is convenient for them, has made it possible for more and more customers to pursue price comparison before making a purchase, thereby making their purchase decision much easier (Chiang and Dholakia, 2003). Not only that but Shim et al. (2001) have argued that the rapid growth of the internet as a form of sales channel, might soon exceed purchasing through other traditional channels (i.e., stores and catalogues) (Shim et al., 2001).

The usage of this medium for shopping has surpassed searching for information about goods prior to purchase from retailers' websites, to service marketing. For example, in the banking industry self-service technologies (SST) such as automated teller machines (ATMs) and telephone banking are flourishing and have been well received by consumers because of their convenience in providing 24/7 access to customers (Burke, 2002). Nevertheless, a study by Curran and Meuter (2005) investigated the factors influencing customers' attitude towards the acceptance of SST technologies, online banking and phone banking and ATM machines as additional channels in delivering

service. Their results showed a difference in customers' acceptance of the three channels. The most accepted were automated teller machines (ATMs); phone banking and online banking were less popular respectively. Authors articulated that this negative attitude towards online banking in particular, could be due to the fact that internet banking was not introduced to customers at the same time as the other two technologies (Curran and Meuter, 2005).

2.2.1.3 Benefits of implementing SST in service delivery

There are many benefits in adopting technology for service providers, for example, to reduce costs (Durkin et al., 2008; Simon and Usunier, 2007; Dabholkar and Bagozzi, 2002; Dabholkar, 1996) and improve employees' job performance so that the employee can handle complex service situations, which are difficult to deal with manually (Durkin et al., 2008; Dabholkar and Bagozzi, 2002; Bitner et al., 2000). Furthermore, technology allows firms to customize their services so that they meet customers' needs in each encounter they have with the firm. Technology helps to manage and use accurately the massive amount of information in the customer's individual database so that any employees can use it to serve customers efficiently (Bitner et al., 2000).

For customers, it enables access to services at any time, from anywhere, without the need for employee interaction, and it encourages customers to perform the service they need by themselves (Durkin et al., 2008; Bitner et al., 2000). This ability to produce and consume service products whenever needed is an important factor contributing to customer satisfaction, as indicated in Meuter et al.'s critical-incident study (2000), which investigated customers' experience with self-service technology (Meuter et al., 2000; Bitner et al., 2000).

Having control and saving time were considered key factors which influenced customer usage of SST, as reported by Langeard et al. (1981) in their exploratory study (Dabholkar, 1996). Finally, one study's results showed that customers having control of their shopping experience and producing their desired services led to increased service quality in technology-based services (Bitner et al., 2000). In conclusion, SST can be defined as technologies which allow customers to "produce a service independent of direct service employee involvement" (Meuter et al. 2000, p.50).

2.2.1.4 Service type: routine and non-routine

Product type is an important factor which may influence customer preference for which channel to use in delivering the service. Face-to-face interaction with a service employee in a bank branch, for instance, may be necessary for receiving complex service products, such as a mortgage, for example. In the service literature, product type is an issue related to the nature of service delivery. (Davis, 1999) identified two types of service: routine and non-routine, which can be used to categorize businesses which provide and deliver services into: service factory, service store, service shop and service complexes (Davis, 1999).

Retail banks are considered to be service complexes; that is, firms delivering a combination of routine and non-routine services to customers. Examples of routine services are savings accounts, online and telephone banking and currency exchange, and examples of non-routine services are mortgage, loans, insurance, stocks and investment (Davis, 1999). What Davis (1999) categorized as 'routine and non-routine' services had been classified as 'simple and complex' financial service products by others such as Durkin et al. (2008). Durkin et al. (2008) investigated the influence of a service product's complexity on the customer's tendency to purchase financial services from online banking channels. Financial service products were classified according to their

complexity level, into simple, medium and complex products. Simple products are those products which are easy for customers to understand, where his/her certainty of the outcome is high, and the process stages are short, for example, credit card and bank saving account transactions; whereas complex products are those products which customers find difficult to understand, the outcome certainty is low and the process is long and goes through different stages. Meanwhile, medium products fall between the simple and complex categories in terms of their outcome certainty and process stages (e.g., life insurance) (Durkin et al., 2008).

To conclude, service type contributes to customer satisfaction with a retailer bank channel's performance. For example, a customer could be perfectly satisfied with acquiring a bank statement or viewing a savings account through the online banking channel. However, when discussing mortgage or loan instalments (non-routine services) customers would tend to seek face-to-face interaction with a mortgage consultant, rather than online or phone banking channels. This point is supported by the research carried out by Van Birgelen et al., (2006), where findings showed the significant impact that satisfaction with employee performance can have on behavioural intention when non-routine services are considered.

2.2.2 Overview on customer satisfaction

The meaning of the word *satisfaction* is traced back to *satis,* a Latin word which means "enough", this indicates that goods and service products which are delivered in a satisfactory manner are providing what is expected from them (Oliver, 1997). In the field of consumer research studies, however, there has been a shift in the interpretation of satisfaction from the literal meaning to viewing it as a consumer's experience (Oliver, 1997).

In the satisfaction literature there seems to be a lack of agreement among researchers in relation to the definition of the customer satisfaction construct (Giese and Cote, 2000). Some researchers have debated whether satisfaction could be viewed as an outcome of consumption experience or a process (Yi, 1990) While others argued it could be either an evaluation process or a response to an evaluation process. Examples of studies which have defined satisfaction as an evaluation process are those carried out by (Fornell, 1992) and (Oliver, 1981); while studies by (Oliver, 1997) and (Westbrook and Reilly, 1983) defined it as a response to an evaluation process.

Thus, most of the satisfaction studies have favoured the latter, which is defining customer satisfaction as a response to an evaluation process (Oliver, 1997; Westbrook and Reilly, 1983; Day, 1984). This has lead to more disagreement among researchers about the nature of this response to an evaluation process (Giese and Cote, 2000). Some view satisfaction as a cognitive response, for instance Tse and Wilton (1988); and others as an effective response (Giese and Cote, 2000, Westbrook and Reilly, 1983). The final group argument is based on whether to define satisfaction as related to a specific-transaction or overall satisfaction.

The current study is adopting the last group point of view, which is defining customer satisfaction with the performance of the banks multiple channels as an overall satisfaction. As a result, the difference between transaction-specific satisfaction and overall satisfaction will be discussed in further detail in the following paragraph.

2.2.2.1 Difference between transaction-specific satisfaction and overall satisfaction

Recognizing the importance of customer satisfaction with a specific encounter of a service transaction is an important issue, as it builds the foundation of their overall satisfaction. For example, customers might form their satisfaction from the experiences from one encounter with a bank's branch employee. The way the employee attends to inquiries and delivers the desirable service in that particular transaction determines whether the experience is satisfying or dissatisfying. On an aggregate level, customers' overall satisfaction will be formed over a period of time from their frequent use of the bank's different channels (i.e., from multiple encounters with online transactions or ATMs). In the service literature, there is an assumption that customers are likely to separate and evaluate their satisfaction with service encounters from their overall satisfaction with the service provider (Van Birgelen et al., 2006; Bitner and Hubbert, 1994).

The results of two experimental studies by (Oliver and Swan, 1989) and (Surprenant and Solomon, 1987) reported the existence of a correlation between customer satisfaction with multiple service encounters and customers' overall satisfaction with the service provider (Bitner and Hubbert, 1994). The capability of any firm in any sector to handle service encounters is a crucial issue, so much so that the firm depends on this for its existence in a highly competitive market (Bitner et al., 2000). To emphasize the important role technology plays in delivering the service encounter, Bitner et al. (2000)

have presented a new pyramid which is a modification of the service marketing triangle that was presented by Parasuraman (1996). This new pyramid illustrates the service encounter as a dynamic relationship linking together the service provider's employee, the customer and technology (Bitner et al., 2000).

Satisfaction with the service encounter is directly influenced by the main points of the pyramid, which represent an interactive marketing mechanism (Bitner et al., 2000). An investigation was carried out by Bitner and Hubbert (1994) to examine if customers can differentiate between service encounter, overall satisfaction and service quality. In order to test their premises, which state that although these three constructs are correlated, they are discrete, this investigation data was collected by giving a questionnaire to travellers at the departure gate in an international airport. Results showed support for the researcher's premises. Also, findings have indicated that distinguishing between overall satisfaction and service quality is not as easy as differentiating overall satisfaction from service encounter satisfaction for customers (Bitner and Hubbert, 1994). Each encounter a customer has with a service provider through any of the chosen channels is considered to be an important event, where customers form their experience and determine their behaviour intentions (Zeithmal et al., 2009; Van Dolen et al., 2002).

There has been increasing interest among scholars and marketers regarding making each encounter the customer has with the firm through its various channels a satisfying experience, whether this encounter is remote, face-to-face or via the phone. In addition, these types of encounters can be applied to any service industry (Zeithmal et al., 2009; Van Dolen et al., 2002). 'Remote encounters' refers to the technology-based channels that customers use to contact the firm (i.e., online banking channel). In this case, the quality and the performance of the bank's website is what customers evaluate in the absence of human interaction. Recent researchers in service literature have been

investigating the factors that drive customer satisfaction and dissatisfaction with technology-based encounter performance (Zeithmal et al., 2009).

What may cause customer satisfaction with technology-based service delivery is the availability of these channels. For instance, ATMs are easy to use and save time and money by cutting travel costs. However, some other customers' experience a dissatisfying performance of self-service channels as these channels fail to meet customer needs, in other words, a poorly designed service website leads to poor performance in terms of the considerably long time taken to deliver the service and confusion for the customer because of unclear menus and options (Zeithmal et al., 2009). The convenience of finding products over the internet was reported by Szymanski and Henard (2001) to be one of the aspects which produce customer satisfaction with the online environment (Dabholkar and Bagozzi, 2002).

Customer complaint behaviour can be used to increase customer satisfaction if it has been managed correctly and in such a way that the firm will quickly put into action a recovery plan for the service failure; even so, that is only if the customer complains and expresses their dissatisfaction. Service recovery technology contributes to handling customer complaints through providing customers with different means to communicate with sales and customer's service teams, by using tools such as emails and cell phones (Bitner et al., 2000). However, researchers have found that only five to ten percent of the customers report their complaints after a service failure (Bitner et al., 2000). Studies have stressed the importance and the difficulty of implementing technology recovery efforts. A critical incident study examining customer interaction with self-service technology demonstrated that customers consider service failures to be the main cause of any negative technology-based service encounter (Bitner et al., 2000). In contrast to technology-based encounter, person or face-to-face encounters take place between the service provider employee and the customer (Zeithaml et al., 2009).

 Some studies in the service literature have suggested that the success or the failure of a customer's encounter while obtaining a service relies completely on the behaviour and the performance of the employee who a customer dealt with in that encounter (Van Dolen et al., 2002).

This interpersonal service encounter is critical. That is because customer judgment of the service-delivery performance is influenced by the employee's flexible response to the customer's need, whether verbally or nonverbally as well as the other tangible features of the firm's office such as the physical setting of the branch (Zeithaml et al., 2009). Because of the intangible nature of services, customers often face difficulty in understanding it. So, in order to overcome this problem, they make inference based on the tangible factors of the service, for example, the physical layout and the buildings surrounding the service environment. This point of view is supported in the service literature and empirical evidence in this literature has shown the significant impact that tangible factors (e.g., physical environment) have on customer satisfaction and their behavioural intention (Jamal and Naser, 2002).

 Furthermore, in the banking literature, a number of studies examined the tangible and intangible aspects of services which drive customer satisfaction. Manrai and Manrai (2007) have presented four dimensions of customer satisfaction with retail banking services and their consequential behaviour outcomes. Jamal and Naser (2002) have proposed the importance of tangible aspects of service quality as the antecedent of customer satisfaction. Alongside these tangible aspects, sales employees are considered to be equally important to the service provider, because the interaction with the service provider's employee has been evidenced to initiate customer satisfaction (Van Dolen et al., 2002).

Employee performance has been classified in two categories: performance pertaining to core tasks and performance pertaining to the socio-emotional facet (Van Dolen et al., 2002; Price et al., 1995). The first one is related to the employee possessing product information and knowledge and employing this knowledge to help customers to obtain the desired service which will fulfil their needs. The second one is related to meeting the customer's emotional and social needs of interacting and forming a personal relationship with the employee. This is possible if the employee is friendly, being attentive and showing empathy to the customer in a way that will encourage the customer to evaluate the encounter positively and in a satisfactory manner (Van Dolen et al., 2002). Consequently, service encounter satisfaction is the customers satisfying/dissatisfying experience with a single encounter in an organization (Bitner and Hubbert, 1994). Similarly, customers can distinguish their satisfaction with an online banking transaction performance, or one telephone banking inquiry event, from their overall satisfaction with the retailer bank's multichannel performance.

In line with the previous research, the present study defines overall satisfaction as "the consumer's overall dis/satisfaction with the organization based on all encounters and experiences with that particular organization" (Bitner and Hubbert, 1994, pp. 76-77). For example, overall satisfaction with face-to-face transactions reflects the experience customers gain by interacting with the service retailer's employees' performance: how satisfying or dissatisfying the experience was, depending on the customer evaluation of how helpful or friendly the customer found the employee.

That is to say, in multichannel retail bank services, overall satisfaction is built up from the customers' multiple encounters with these different channels. Where, face-to-face encounters are viewed as intangible factors which pertain to satisfaction with employee performance. Remote encounter refers to the online banking's performance which represents the technology-based channel.

Accordingly, customers' satisfaction with multichannel performance is an accumulative evaluation of multiple encounters with the retailer's various channels. As a consequence, customer's evaluation of bank's employees' performance needs to be added to his or her evaluation of the bank's online channels' performance, when assessing multichannel service retailing performance.

2.2.2.2 The link between satisfaction and behavioural intention

In the following paragraphs focus will be on viewing the literature for some of the studies pertaining to the link between customer satisfaction and its substantial effects on behavioural intention in general then more specifically those related to customer satisfaction in a multichannel context.

The research carried out by Gwinner et al. (1998) is one of the studies which highlighted the important role of customer forming relationships with service provider employees, and its influence on customer's behavioural intention. This study found a considerable correlation between service relationship benefits and loyalty, positive word of mouth and satisfaction with the service. Moreover, increasing purchases were found to be the consequence of customers forming a relationship with the firm's employees (Gwinner et al., 1998).

Likewise, in the clothing and accessories' retailing format, Reynolds and Beatty (1999) carried out a study to examine what benefits customers gained from their relationship with salespeople and the consequences of these benefits, particularly satisfaction, loyalty, word of mouth, repeat purchasing. The researchers were especially interested in the functional and social benefits that customers might gain from this relationship. The findings indicated the existence of a direct and positive relationship between customer satisfaction with the salesperson and repeat purchase.

It was also seen that a customer who established relationships with the salespeople and the firm was more likely to be satisfied and loyal. In addition, researchers concluded that both types of benefits were essential in building and maintaining a relationship with the customers (Reynolds and Beatty, 1999).

In addition, Manrai and Manrai (2007) have identified four dimensions of customer satisfaction with bank services. These are: personal related considerations (employee), financial considerations (interest earning and interest payments), environment considerations (office atmosphere), and convenience considerations (opening hours) in a study examining issues concerning customer switching behaviour. Findings have shown dimensions related to non-financial aspects such as employee, office atmosphere and opening hours explaining 58.2% of the variation in customer satisfaction (Manrai and Manrai, 2007).

Some of the previous studies which reported a direct relationship between customer satisfaction and behavioural intention, such as loyalty and repurchase are highlighted in the next-section. For instance, Methlie and Nysveen's (1999) work presented support for that statement through their research, which examined the link between satisfaction and online loyalty. They have investigated factors such as: satisfaction, brand reputation, switching cost and search cost which may influence customers' affective and conative loyalty in online banking. Customer satisfaction was hypothesized to have a positive effect on affective and conative loyalty. Results showed that customer satisfaction and brand reputation were the most significant factors which affected customer affective and conative loyalty online, and that result confirmed and supported their proposed hypothesis (Methlie and Nysveen, 1999).

In another study, Zboja and Voorhees (2006) investigated the role of customer trust and satisfaction with retailer brands and the effects on repurchase intention. A conceptual model was developed and data from two samples of computer and electronic retailer consumers were collected using a survey and a structural equation model was employed to test the hypothesis. Satisfaction was hypothesized as having a positive and direct effect on repurchase intention. This hypothesis was supported by the findings of the study, which also showed that the effect of brand trust and satisfaction on repurchase intention was mediated by retailer trust and satisfaction (Zboja and Voorhees, 2006).

Additionally, the relationship between satisfaction and outcomes of behavioural intentions was empirically validated in the multichannel environment in different setting, for example, in the travel industry (Shankar et al., 2003) and banking services (Van Birgelen et al., 2006). Shankar et al. (2003) conducted a study testing the effects online channels had on customer loyalty and satisfaction compared to offline channels in the travel industry, and the relationship between satisfaction and loyalty. Two sets of data were obtained from online and offline customers and a simultaneous equation model of satisfaction and loyalty were tested. Results indicated a positive relationship between online satisfaction and loyalty, and the relationship was found to be stronger online than offline (Shankar et al., 2003).

A study by Szymanski and Henard (2001) used data from 50 empirical studies in order to highlight the rationale pertaining to customer satisfaction antecedents, consequences and the potential moderators. Customer satisfaction outcomes were: complaints negative word of mouth and repeat purchasing. Repeat purchasing was viewed as the likelihood that customer would buy from the same retailer again and a positive relationship was expected between customer satisfaction and repeat purchasing. A meta-analysis was employed and 517 correlations between the variables in the study were

reported. The statistical analysis results confirmed the positive relationship between satisfaction and repeat purchase (Szymanski and Henard, 2001).

Finally, in the multichannel retail banking format, Van Birgelen et al., (2006) investigated the effects customer satisfaction and multichannel performance might have on behavioural intention, in particular, when some of these channels were technology-based such as online banking and telephone banking channels. One of the reported findings was that satisfaction with employee performance is a significant determinant of behavioural intention when non-routine finance service products were taken into account (Van Birgelen et al., 2006).

2.2.2.3 Moderating variables between satisfaction and behavioural intention

Research in a different context has empirically supported the existence of moderating effects of customer's characteristics variables on the link between satisfaction and behavioural intention. One of the empirical studies which supported the role of customer characteristics as a moderator of the relationship between satisfaction and repurchase behaviour is Seiders et al. (2005). They carried out a study in the specialty apparel and furniture retail context to examine if their proposed hypothesis that customer, relational and marketplace characteristics moderate the relationship between satisfaction and repurchase behaviour, but not repurchase intention will hold. These moderators are household income, involvement, relationship age, relationship program participant, competitive intensity and convenience of offering. A survey was used to collect data. Testing the hypothesis involved regression analysis to estimate identical models for repurchase intention and repurchase behaviour. Most of the results provided support for the hypothesis and showed dramatic difference in the effect moderators have on repurchase intention and repurchase behaviour (Seiders et al., 2005).

In a Swedish primary grocery store format, Mägi (2003) has examined the impact customer satisfaction, loyalty and customer characteristics have on customer share of visits and share of purchase; in addition the study tested whether customer characteristics have a moderating effect on customer share of wallet (i.e., the total amount customer allocate to spend in his/her main grocery store). Findings of the study have demonstrated great differences in the amount of share visits and share of wallets households allocate to their primary store. That variation could be due to the difference in customer characteristics, which influence their response and satisfaction. Also, findings have supported the moderating effect customer characteristic have on satisfaction and share of purchase (SOP) and share of visit (SOV) (Mägi, 2003).

Another study which called for linking customer satisfaction rate to repurchase behaviour is Mittal and Kamakura (2001). This study highlighted the existence of variation in customer satisfaction rating and repurchase behaviour depending on customer characteristics. To investigate the moderating effect of customer characteristics on the relationship between satisfaction ratings and repurchase behaviour, researchers developed a conceptual model and collected a large data set of 100,040 from automotive customers. Customer characteristics included gender, age, level of education, number of children and residence. Researchers found that variation in satisfaction levels is due to the response bias which occurs depending on different groups characteristics. As a result, changes in repurchase behaviour also varied according to the response bias of different groups. With the relationship between the satisfaction level and repurchase behaviour appearing to be less sensitive to response bias in one group; while, in other group a high response bias was detected leading to zero correlation between the groups' satisfaction and repurchase behaviour (Mittal and Kamakura, 2001).

Finally, Homburg and Giering (2001) is one of the first empirical studies which addressed the effect of customer demographics and psychological variables as moderators of the link between satisfaction and loyalty. Questionnaires were sent out to randomly selected customers of a Germen car manufacture that had purchased cars in the last two years. Age, gender, income, involvement and variety seeking were the customers' demographic and psychological variables chosen for this study. In order to assess the moderator effect on satisfaction and loyalty a multiple group LISREL tool was used. Study findings have stressed the importance of the role that demographic and psychological variables play in determining shopping behaviour. Also, age, income and variety seeking were found to have a significant effect on the link between satisfaction and loyalty (Homburg and Giering, 2001).

In contrast with the prior literature, some studies have reported that demographic variables are not as important as psychological variables in determining consumer shopping behaviour in multichannel segments (Konuş et al., 2008) and in national brand promotions and store brands (Konuş et al., 2008; Ailawadi et al., 2001). For example, Ailawadi et al. (2001) note that customer's psychological and demographic characteristics were used as determinants of store and national brand promotion usage, to examine if a store brand and national brand appeal to the same value conscious customers. The structural equation model results show that in store and out of store promotion is different from store brand usage and that leads to the emergence of a store brand focused segment, a deal focus segment, deal and store user segments and a nonuser segment. These segments have different psychological traits; out of store promotion is associated with psychological traits which relate to hedonic and benefit cost. Meanwhile, store brand usage is associated with economic benefits and costs. In addition, results illustrate that demographic variables do not have a direct effect on these

three behaviours, but they have a significant association with psychological variables (Ailawadi et al., 2001).

2.2.2.4 In conclusion

Most of the studies which investigated the link between customer satisfaction and the consequent behaviour in various contexts have employed demographic variables such as age, gender, income and education levels as moderators of this relationship. Empirical results have reported the effects of these variables on the link between satisfaction and behavioural intention. In contrast, there is another vein in the literature that seems to value more the role of psychological variables in providing explanations of consumer's attitude towards a retailer's diverse channels. Since this research will be conducted in a service retail multichannel context, as mentioned before, the focus will be on customer's psychological variables (i.e., technology readiness) and personality traits to shed more light on satisfaction-behavioural intention relationship. In the next section multichannel literature will be reviewed followed by the chosen moderating factors in this study.

2.3 Multichannel Literature

2.3.1 Introduction

Research has noted that firms and organizations that complement their existing traditional channels with a web-based channel, especially with the wide scope that the internet provides, will become more successful than those who remain operating on a single channel (Sousa and Voss, 2006). As a result, of this rapid growth of the internet many retailers and service providers incorporated electronic business activities into their offline operations introducing multichannel strategies (Kollmann et al., 2012). Some of the organizations and industries which embraced the multichannel phenomena are retail, travel, banking computer hardware and software and manufacturers (Kumar and Venkatesan, 2005). In addition, customers who carry out their shopping activities through various channels such as the internet, kiosks, ATMs, call centres, direct marketing, home shopping networks, catalogues and retailers' stores (Neslin et al., 2006) are defined as multichannel shoppers: "customers who have made a purchase in more than one channel in the observed time period" (Kumar and Venkatesan, 2005 p.45).

The proliferation of multichannel in the presence of the virtual channel did not come without challenges for both practitioners' and academics (Neslin et al., 2006). Challenges facing marketers rises from key issues, such as how can they manage to satisfy their customers' needs, by simultaneously offering them alternative channels for their different shopping activities; also, what drives a customer to be a single channel shopper or multichannel shopper (Schröder and Zaharia, 2008; Schoenbachler and Gordon, 2002).

Hence, multichannel management has emerged as a customer-centric approach that opposed the traditional sales channel studies (i.e., Rangaswamy and Van Bruggen, 2005), where the focus is on the channel or the medium and the suppliers. Meanwhile, in the customer-centric multichannel approach, the focus lies with managing customer's contact points with the company instead of focusing entirely on the channel. Which in return enables the company to track each customer's activity and the contact points used in pursuing these activities (Neslin et al., 2006; Schoenbachler and Gordon, 2002).

Numerous empirical studies confirmed the assumption that employing multichannel strategies increase company's revenue (Neslin et al., 2006, Kumar and Venkatesan, 2005, Thomas and Sullivan, 2005). For example, Kumar and Venkatesan (2005) reported that multichannel shoppers' purchases were more than a single channel shoppers', as they have a high share of wallet and are more active and engaged with the firm.

Likewise, Thomas and Sullivan (2005) have found that the average expenditure of a multichannel shopper is higher than a single channel shopper, but with consideration to the following: (a) although single channel buyers purchases in comparison with a multichannel buyer are considerably more, they do not spend more in total. (b) It is not necessarily the case that each combination of channels lead to an increase in the company's sales levels (i.e., customers shopping from a catalogue alone spent more than customers who shopped at both store and online), ultimately a customer who purchases from more than one channel will generate more sales than single channel customer. In conclusion, research in multichannel seems to divide into two main streams, where one focusses on the drivers of consumer channel choice and preferences and the other classifies customers into different segments. Below are some of the main studies in each stream.

2.3.1.1 Channel selection

The focus of researchers' in this stream has been on understanding what drives consumer channel selection in different stages of their decision and shopping process (Frambach et al., 2007; Balasubramanian et al., 2005; Schoenbachler and Gordon, 2002), and what determines customer migration from one channel to another (Ansari et al., 2008; Gupta et al., 2004).

In other words, this branch of literature is driven by academics and managers need to develop multichannel strategies by bringing more insight into consumer behaviour in the multichannel environment and finding answers for how, when, and why questions relating to consumer choice of a specific channel whilst shopping.

The work of (Alba et al., 1997; Peterson et al., 1997) are early attempts in that direction. Peterson et al. (1997) has provided a conceptual frame work about the different combination of channels (i.e., catalogue, retailer store and internet) consumers might use in different phases of the shopping process, and these different stages included: (1) The initial search for information, (2) a subsequent search for information and the final stage (3) product purchase. Peterson et al. (1997) predicted what might be the most likely combination of channels that customers will be likely to use for various product types (Balasubramanian et al., 2005; Peterson et al., 1997). Also, Alba et al. (1997) suggest that introducing the option of numerous channels present consumers with opportunities to form their consideration sets more effectively in the preliminary stage of the search process which came as result of analysing the strengths and weakness of various channels.

This shows that consumers utilize alternative channels, one channel for searching and the other for purchasing (Frambach et al., 2007; Verhoef et al., 2007; Neslin et al., 2006). For instance, a customer might use the internet to search for better deals, a

catalogue for gift giving, a retailer's store to purchase and collect the product or the phone to place an order. Balasubramanian et al. (2005) advocated that what drives this behaviour is the consumer's need to satisfy five distinct shopping goals: (a) Economic goals, the need to find a good deal. (b) Self–affirmation goals, the ability to illustrate expertise in channel selection and usage. (c) Symbolic meaning goal, which is related to the amount of time, effort and attention consumers pay in the shopping process which can be affected by the chosen channel. (d) Socializing and experiential goals; these goals are motivated by the need to be a part of social or stimulating environment. (e) Scripts maintaining goals, this is accomplished by maintaining familiarity and regularity throughout the shopping process (Dholakia et al., 2010; Balasubramanian et al., 2005).

Extant research has exhibited that during shopping process consumers go through three shopping stages namely, pre-purchase, purchase and post-purchase. In addition, research has indicated that consumer moving from online to offline channel during the different stages of shopping process is more likely to occur when purchasing complex product or service (Frambach et al., 2007; Ahuja et al., 2003). Frambach et al. (2007) has concluded that consumer's preference and intention to shift from one channel to another more specifically from innovative (online) channels to traditional (offline) channels through the different stages of the buying process is mainly influenced by the complex nature of the service. Furthermore, the study found that regardless of the customer's internet experiences the dominant channel to purchase complex services remains to be offline (Frambach et al., 2007). This is inline with Van Birgelen (2006) finding's non-routine service such as home mortgages obtained through the employee channel (offline channel).

Moreover, there is evidence in the literature that identified other factors, which contribute to determining consumer channel choice. These factors range from price expectation (Brynjolfsson and Smith, 2000), the type of the product which is to be

purchased (Johnson, 2008; Frambach et al., 2007), perceptions of switching costs, efficiency concerns (Johnson, 2008), risk aversion (Dholakia et al., 2005) and geodemographic characteristics (Inman et al., 2004). For instance, Inman et al. (2004) introduced a model which linked channel category associations, that is consumers' perception of linking some products to certain channels, with both channel shares of volume and customer geodemographics variables. By conducting a corresponding analysis of which product types obtained from which channels, the channel category association together with the consumers' geodemographic variables were used to estimate the direct and moderating effects they might have on the channel share of volume. Findings have confirmed the direct and moderating effects that both channel type, and geodemographics have on channel share of volume (Inman et al., 2004).

Despite the aforementioned efforts to investigate the drivers of consumer channel choice and preference, there has been a growing body of research in multichannel literature which argue that consumers' channel preference is not fixed, but it changes over time, and that customers move or migrate from one channel to another (Dholakia et al., 2010; Ansari et al., 2008; Gupta et al., 2004; Sullivan and Thomas, 2004). The concept of customer channel migration is defined as "a dynamic process in which a current customer repeatedly makes choices to frequent one of a retailers channel options" (Sullivan and Thomas, 2004 p. 2). This means that the consumer makes the decision of repeating the purchase stage of the shopping process through the same channel. For example, Ansari et al. (2008) presented a model to estimate customers' migration to the internet channel and purchase volume; data was collected from a randomly chosen sample of 500 consumers of a large durable apparel retailer. Data has revealed evidence that a substantial group of customers have migrated to the internet from other channels and, in comparison with other channels, this group had the lowest purchase volume. Researchers' explanation of this finding was that migration to the

internet lowers customers' switching cost, which makes conducting product comparison across different firms much easier (Dholakia et al., 2010; Neslin et al., 2006; Brynjolfsson and Smith, 2000).

Another, finding is that internet usage reduces the possibility of interaction with other people, unlike telephone or in-store, because this dispenses with the personal service attendant, which might in turn lead to a decrease in customer loyalty (Neslin et al., 2006). Correspondingly, (Sullivan and Thomas, 2004) carried out a longitudinal study of customer channel migration. Data was collected from customers of a large US retailer who employed three distinct channels: a traditional store, a catalogue and an internet website. Constructs such as product category, product price and the stage in the consumer's life cycle were incorporated into the customer migration model. This study has provided a diagnostic approach for predicting changes in channel choices over time (Dholakia et al., 2010; Sullivan and Thomas, 2004).

Finally, Gupta et al. (2004), based on the consumer purchase decision model, have examined five factors (channel risk perception, price search intention, evaluation effort, and waiting time) to estimate consumer switching behaviour from offline to online channels. Results, obtained from a survey sample of 337 multichannel shoppers indicated the following: Firstly, the identified five factors could be used as predictors of consumer's channel switching behaviour. Secondly, the percentage of customers who migrated from offline to online across four product categories accounted for 52% of the study sample. Finally, no differences were reported in online and offline consumers' demographic variables, and as such they should not be used as the base for market segmentation (Dholakia et al., 2010; Gupta et al., 2004).

2.3.1.2 Customer segments

Consumer segmentation is the other vein of research in multichannel literature whereby customers' utilization of shopping channels is used as a base for this segmentation. Several studies within the field have used this approach as an attempt to develop and improve multichannel strategies (Konuş et al., 2008; Neslin et al., 2006; Thomas and Sullivan, 2005; Keen et al., 2004). The following paragraphs will elaborate more on this area of research. As mentioned in section (2.3.1) multichannel management was established to shed light into these challenges, and studies were carried out to design, deploy, coordinate and evaluate channels in order to enhance customers' value via effective customer acquisition, retention, and development (Konuş et al., 2008; Neslin et al., 2006). Understanding consumer behaviour is one of the main challenges in multichannel consumer management (Neslin et al., 2006). Neslin et al. (2006) identified multichannel consumer segmentation as a consumer behavioural factor that is fundamental in designing multichannel strategies.

Research has shown the preferred channel for searching for products is not necessarily the same channel which is used to acquire them (Verhoef et al., 2007). For example, customers use the internet to search for information and a store for purchasing. This form of shopping is known as research shopping and, according to Verhoef et al. (2007), it is considered to be the most popular among other forms. In addition, multichannel customers were segmented based on their information search and purchase behaviour (Konuş et al., 2008).

A cluster analysis was conducted by Keen et al. (2004) on US multichannel shoppers. That has led to the emergence of four consumer segments based on their intentions to purchase music CDs and personal computers from these alternative channels: retailer stores, catalogues, and the internet. Consumers have been classified as "generalist" referring to those who do not have a preference for one channel in particular, as they

consider it to be a part of the overall shopping experience. In contrast, "formatters" are those customers who place great value on which channel to use, and do not consider purchasing from any channel other than a retail store. The next group are called "price sensitive" and are those consumers to whom price is the predominant drive, so they seek the lowest price comes first followed by choosing a channel to purchase the product. Finally, there is the "experiences" segment and the most important feature of this cluster is their previous experience with the channel. Consumers' positive experience is what motivates them to repeat the purchase from the same channel again (Neslin et al., 2006; Keen et al., 2004).

In a more recent study, using survey data from a sample of 364 Dutch consumers, and across different product categories, Konus et al. (2008) identified three segments: (1) 'Multichannel enthusiasts', those who displayed positive attitudes towards all the alternative channels (i.e., store, catalogue and internet). Multichannel enthusiasts exhibit a high level of innovativeness and, to this segment, shopping is a pleasurable experience. (2) 'Uninvolved shoppers' do not show interest in any particular channel and display low shopping involvement. (3) 'Store-focused consumers' are similar to the "formatters" segment in Keen et al. (2004), in that they do not consider other channels except for the retail store to purchase their products, which makes this segment the most loyal among the three. Study results indicated that psychological variables such as shopping enjoyment, loyalty and innovativeness play a role as predictors of the segment membership (Konuş et al., 2008).

Similarly, in a German retailer setting, Schroder and Zaharia (2008) have investigated the link between multichannel consumers' behaviour and their shopping motives. Five shopping motives were confirmed: convenience orientation, recreational orientation, independence orientation, delivery related risk aversion and product and payment risk aversion. These, motives were linked to shopping segments as follows: non-store

channel users (online shopping, catalogue) seek to satisfy their need for independence and convenience. Single channel users (chain stores and bakeries) are motivated to satisfy their emotional and social needs. Finally, multichannel users obtain information from the online channel and make the purchase through the chain store channel, combining their motivation for independence which is provided by the online channel and the motive to reduce risks related to the product and payment by buying products from chain stores (Schröder and Zaharia, 2008).

Another study which provided a valuable contribution to the literature is Thomas and Sullivan (2005) who analysed customers' data covering one year of purchases from a US retailer operating multiple channels (store, catalogue and the internet), and with the objectives of using the information provided by the analysis to develop a communication strategy targeting each segment of multichannel customers, and to estimate and predict customer's future channel choice. They have successfully identified the incidence and value of several shopping segments. Results obtained from the analysis demonstrated that around 63% of customers were purely store oriented and 12% accounted for catalogue only, the internet only and dual channel only shoppers. Finally, customers who shopped across all three channels accounted for just 1%. However, both customers who shop from two channels and those who shop from all three channels were found visiting the retailer more often and buying more items and therefore generating more profits for the firm (Dholakia et al., 2010; Thomas and Sllivan, 2005).

2.3.2 In conclusion

In recent years there has been a rapid growth in the number of channels that customers can use to establish contact with a firm during the different stages of the shopping process. In addition, only by firms embracing the customer-centric concept does it become possible to understand consumers' behaviour during their shopping process and as a result multichannel strategies can be formed and used to predict the likelihood of attracting new customers and sustaining the existing ones.

Although literature has covered many areas and issues pertaining to customer behaviour in this multichannel environment, including examining the drivers of customers' particular channel choice and categorizing multichannel consumers into segments depending on motivation, demographic. However few studies have emphasised on employing psychological factors as a base for customer segmentation, as a result it is important to investigate these factors in order to gain more insight into customers' attitude in multichannel environment.

2.4 Literature review of the Five-Factor model of Personality trait

The following section discusses the moderating variables in this study; in particular, the five-factor model of personality. The section begins with a definition of personality, history and development of the five-factor model of personality. The different measurement scales available and the conceptualisation of each trait as well as a review of previous studies which have utilized the model in different domains of literature, especially in the domains of consumer research and information technology. Finally, a summary of the section will be provided.

2.4.1 Introduction to five-factor model of personality trait

Personality is defined as "those characteristics of the person that account for consistent patterns of behaviour" (Perivn and John, 1997) or "an enduring pattern of reactions and behaviours across similar situations" (McCrae and Costa, 1999) (Saleem et al., 2011 p.1923). Individual personality is believed to develop through the childhood stage in life and become stable and mature at the adulthood stage (Saleem et al., 2011). Thus, personality traits are regarded as stable.

2.4.1.1 Development of the five-factor model (FFM) of personality

Viewing personality literature revealed that efforts to produce an acceptable personality taxonomy or classification or any descriptive models did not take place until the beginning of the 1900's (John and Srivastava, 1999; Barrick and Mount, 1991). The early, works of Allport and Odbert (1936), followed by Cattell (1943) were early steps in that direction. Cattel (1943,1945a,1945b) started with a subset of 4,500 trait terms and utilized empirical and semantic clustering procedures together with his views to reduce the 4,500 traits to only 35 variables. Afterwards, he carried out a series of factor analyses which lead to identifying 12 personality traits which later became part of his

16 personality factors (16PF). Cattel's pioneering work received wide recognition and dominated personality literature (Saleem et al., 2011; John and Srivastava, 1999). In the same period, Fiske (1949) took on replicating Cattell's bipolar scales. From 22 of Cattell's variables, he managed to constructed simpler descriptions. However, his factor structures, which resulted from self-ratings, obtained from peers and psychological staff members were unable to achieve anything more complex than five-factor solution (Saleem et al., 2011; John and Srivastava, 1999; Digman, 1990). Furthermore, the five-factor model has been replicated by Norman (1963). Eventually, based on the work done by both Fiske (1949) and Norman (1963) the 'Big Five' model has emerged, and the factors were labelled (Saleem et al., 2011; John and Srivastava, 1999; Digman, 1990):

- Extraversion or surgency (talkative, assertive, energetic)

- Agreeableness (good-natured, cooperative, trustful)

- Conscientiousness (orderly, responsible, dependable)

- Emotional stability versus Neuroticism (calm, not neurotic, not easily upset)

- Intellect or Openness (intellectual, imaginative, independent-minded) (John and Srivastava, 1999 p.105).

However, it is in the 1990s after decades of extensive replication of the five factor model (FFM), also known as the 'Big Five' model that personality scholars came to some sort of agreement of considering FFM a parsimonious framework of personality. That is despite the ongoing debate among researchers in relation to the terminology and interpretation of each one of these factors (Saleem et al., 2011; Digman, 1990).

On the other hand, the Big Five taxonomy faced criticism with some scholars who argued that it failed to provide the fundamental basics of what can be considered as a complete theory. John and Srivastava (1999) have been opposed to this criticism and stated that the intention of introducing the Big Five was to account for the structural relationships between the different personalities traits rather than introduce it as personality theory (John and Srivastava, 1999). Likewise, (McCrae and John, 1992) argue that although the five-factor model is not considered a personality theory, this model has adopted the foundational aspects of trait theory which implies that it is possible to characterize people based on stable patterns of thoughts, feelings, and actions; that these traits can be evaluated quantitatively and that these traits have succeeded in displaying cross-situational consistency (McCrae and Costa 1999). Furthermore, Costa and McCrae (1988) asserted that the five-factor model provides a comprehensive taxonomy of personality traits which enables a systematic examination of the traits and as result generalizing findings to the wider scope of personality.

2.4.1.2 Personality measurements

Golderg (1981) has suggested that the available self-reported questionnaires are well suited to capturing the different aspects of the five-factor model (Digman, 1990). Furthermore, the usage of questionnaire instruments to measure the FFM traits goes back to the 1900's. For example, in 1979, Digman conducted a correlation analysis of the High school personality questionnaire (HSPQ; Cattell and Cattell 1969), and the analysis revealed the existence of four second-order factors, which became the foundation for most of the scales developed afterwards (Digman, 1990).

In 1985, Costa and McCrae carried out a series of studies in an attempt to develop an inventory and to extend the well-known two-factor model by Eysenck, which lead to the advent of openness to experience scales, with the development of this third dimension the 'neuroticism, extraversion and openness to experience personality inventory' (NEO-PI) being created. At a later stage, the dimensions 'agreeable' (A) and 'consciousness' (C) were added to the inventory (John and Srivastava, 1999; Digman, 1990).

In addition, Costa and McCrae (1992) improved NEO-PI and introduced the 240-item reversed personality inventory (NEO-PI-R) for this purpose. A sample of middle and older age adults was used and analysis was executed by factor analysis and multi-method validation procedures. The scale has displayed internal consistency, convergent and discriminant validity. Moreover, McCrae and Costa (1997) have conducted a cross-cultural assessment in an attempt to generalize the findings of the five-factor model, which is in English language to other cultures and languages, by employing the revised NEO personality inventory (NEO-PI-R) scale and comparing it against the American factor structure. The scale comprises 240-items, and each factor of the FFM is represented by six facets, and it was translated into six languages German, Portuguese, Hebrew, Chinese, Korean and Japanese. The questionnaire instrument was designed on five-point Likert scale anchored by strongly disagree and strongly agree (McCrae and Costa, 1997). What McCrae and Costa (1997) study results revealed the translation of the NEO-PI-R yielded similar results compared to the American sample; also according to McCrae and Costa the results indicate that personality trait's structure can be considered universal.

The conceptualisation of the five-factor model of personality is rooted in the psychology literature, where the conceptualisation of each trait of the five domains of personality is presented (McCrae and Costa, 1996). For instance, Goldberg (1993) has

indicated the existence of long tradition which involves identifying different levels in evaluating personality trait; this is demonstrated firstly by combining distinct behaviours to form an explicit trait and secondly by joining groups of covarying traits to form a broad dimensions of personality (McCrae and Costa, 1996). Consequently, on the broad level the five factor model of personality has emerged as a comprehensive model which is utilized in predicting different aspects of individual's personality (Picazo-Vela et al., 2010; Devaraj et al., 2008; McCrae and Costa, 1999). Moreover, each dimension also, called domain is regarded as "multifaceted collections of specific cognitive, affective, and behavioural tendencies that might be grouped in many different ways, and we used the term *facet* to designate the lower level traits corresponding to these groupings" (McCrare and Costa, 1996 P. 23). Based on their extensive work and review of the psychology literature Costa and McCrae have provided definition for the big five dimensions which consist of neuroticism, extraversion, openness to experience, agreeable and conscientiousness. These dimensions are conceptualized as follow:

Neuroticism (N): Neuroticism dimension is conceptualized as the tendency to experience negative and distressing emotions (Matzler et al., 2005). Nervous tension, depression, impulsiveness, low self-esteem, irritability and social anxiety are all categorised under this trait (Matzler et al., 2005; Costa and McCrae, 1995). In general, neurotic individuals tend to get frustrated very quickly, they are very sensitive to negative events and they display strong reactions to any stimuli (Picazo-Vela et al., 2010; Hamburger and Ben-Artzi, 2000).

Extraversion (E): Extraversion is an interpersonal behaviour domain that is chiefly conceptualized as the representative of the amount and strength of interpersonal interaction, the need for stimulation and the capability of joy (Piedmont 1998). In addition, extravert people are characterised as self-confident, talkative, sociable,

assertive, dominant, active and exhibiting positive emotions as well as expressing excitement and seeking novelty and change (Roccas et al., 2002; Costa & McCrae, 1992).

Openness to experience (O): The openness to experience domain is conceptualize as proactive seeking and appreciation of an experience for its own sake (Piedmont, 1998). This personality domain included aspects of Fantasy, Aesthetics, Feelings, Actions, Ideas and Values). Open to experience individuals' exhibit need for variety, sensitivity to art and beauty, intellectual curiosity, tolerance of uncertainty and they tend to lead more complex and less conventional life style (McCrare and Costa, 1996).

Agreeable (A): Like extraversion is initially considered an interpersonal behaviour domain, but it differ from extraversion that it describes the quality of interaction whereas extraversion is related more to the quantity of social stimuli (Costa et al., 1991). Also, agreeable dimension is described as influencing self-image and shaping social attitude and philosophy of life. Facets such as trust, straightforwardness, altruism, compliance, modesty and tender-mindedness falls under agreeableness dimension (Costa et al., 1991).

Conscientiousness (C): Costa et al. (1991) have conceptualize conscientiousness as a dimension which comprise of inhibitive aspect and proactive aspect, with the inhibitive part relating to the moral scrupulousness and cautiousness and the proactive part covering the need for achievement and commitment to work. As result people characterised as been conscientious are competence, order, dutifulness, achievement striving and self-discipline (Costa et al., 1991).

2.4.1.3 Comparisons between available scales

There is a variety of the five-factor model of personality questionnaires available, most of which are designed for a particular research setting. However, the most validated and generally used big-five questionnaires, apart from the NEO-PI mentioned early, are: the 100-item scale (TDA) by Goldberg (1992), which is constructed from single adjectives. The big five inventory (BFI) scale by John, Donahue and Kentle (1991) provides a short questionnaire to assess the five dimensions, and it is mostly used when saving the participant's time is a crucial factor for completing the questionnaire (John and Srivastava, 1999). In terms of how to choose between these three scales, John and Srivastava (1999) stated that if the time aspect is crucial and saving time is required, then 44-item BFI scale would be a suitable measure. Otherwise, the full version of the NEO-IP-R 240-time should be used or the 100-item scale TDA.

2.4.2 Personality in consumer and information research

2.4.2.1 Consumer research

Previous research has stressed the importance of personality traits as a predictor of behaviour (Hurley, 1998). In regard to the service sector, there has been an emerging interest in issues of personality as a predictor of service quality. Hogan and Busch (1984) were the first to introduce the proposition of the direct relationship between personality dimensions and performance in the service role. The personality traits which were examined in this study included: adjustment, sociability and agreeableness (Hurley, 1998; Hogan et al., 1984).

These traits describe the individual differences which affect behaviour in different situational contexts (Mowen and Spears, 1999). In the field of consumer psychology, some studies have presented an association between some personality traits and the effect these have on behaviour in specific consumption situations. An example would be the trait of compulsive buying, which represent consumer differences, and ability to control buying, which stand for the situational element (Faber and O'Guinn, 1989; Mowen and Spears, 1999). Other examples of traits which are found in that literature would be coupon proneness (Lichtenstein et al., 1990) and consumer innovativeness (Mowen and Spears, 1999). For example, Mooradian and Olver's (1997) work on customer satisfaction and complaining behaviour, examined extraversion and neuroticism as mediators of the consumer's positive and negative emotions (Mowen and Spears, 1999; Mooradian and Olver, 1997).

Furthermore, Mowen and Spars (1999) have applied FFM (neuroticism, extraversion, consciousness, agreeability and openness to experiences) to investigate the effect of consumers' differences in their buying behaviour. A sample of college students was used, and a hierarchical approach was employed to provide an understanding of college students' compulsive buying behaviour. Some of the study findings have revealed the direct impact that personality traits, especially emotional stability, agreeability and consciousness, have on compulsive buying behaviour. In another domain, the fast food store loyalty context, four of the Big Five model (i.e., agreeableness, consciousness, extraversion, and emotional stability) were used to identify individuals who are most likely to form a relationship with the retailer. This study has detected a weak effect of personality on store loyalty antecedents, as only the emotional stability trait was found to have a significant effect on trust (Bove and Mitzifiris, 2007).

2.4.2.2 Information technology field

Moreover, the Big Five have appeared as moderator variables in different literatures such as information technology. The literature has placed emphasis on the importance of individuals' reaction to accepting technology (Devaraj et al., 2008). In addition, a study by Devaraj et al. (2008) has investigated the effect that personality characteristics, defined by the five-factor model (FFM), have on technology acceptance variables: perceived usefulness, subjective norm and intention to use the system. Personality traits were modelled having a direct effect on both perceived usefulness and subject norms and a moderating effect of the relationship between perceived usefulness and subjective norm and the intention to use technology (Devaraj et al., 2008). The findings from this study have supported the direct and moderating effect FFM has on perceived usefulness and intention to use the new technology. Similarly, FFM has been investigated as an important factor which influences individual's computer efficacy. In university, library self-checkout setting data was obtained through online questionnaires from 3080 university students and faculty members. The study revealed that personality traits, extraversion, openness and consciousness play role as antecedents of computer efficacy, especially with individuals who score high on these traits and low on agreeableness (Saleem et al., 2011).

In the online shopping context, Bosnjak et al. (2007) have conducted an exploratory study and presented a framework which incorporates the hierarchical approach of personality development, in order to explain the influence individuals' personality traits have on consumer willingness to purchase products or services online. One of the findings revealed by the study was related to the small yet significant effect of three of the Big Five. The study examined the effect that extraversion, neuroticism and agreeableness have on the customer willingness to shop online (Bosnjak et al., 2007).

Furthermore, the field of information technology is witnessing a growing interest in personality (i.e., Yoon and Barker Steege, 2010; Devaraj et al. 2008).

For example, studies have found individual personality traits, especially innovativeness to be a fundamental predictor of adopting a decision of variety of technologies (Nov and Ye, 2008; Agarwal and Prasad, 1999). According to Agarwal and Prasad (1998) innovative people are more likely to try out new technologies. Nevertheless, people vary as some are more innovative than others and these differences can be traced back to one's personality trait. As a result, Yoon and Barker Steege (2012) have investigated personality trait openness to experience as having a direct effect on internet banking usage as well as the social influence dimension, the security dimension and usability (i.e., perceived ease of use and perceived usefulness). The significant positive results (β =.137, p <.001) indicated that personality trait is a predictor of intention to use online banking.

2.4.3 In conclusion

This section has provided the definition of personality trait, the history of the five-factor model of personality, measurement and scales developed to measure these traits and, in addition, a literature review was carried out and pervious research has revealed the important role personality traits play as a predictor of behaviour. Studies from two areas of research, namely consumer and information technology, have empirically reported the direct, as well as the indirect, impact that an individual's personality traits have on various behaviours, such as: compulsive buying, online shopping, online reviewing and online banking, with most of the studies employing the Big Five model as whole or choosing the traits which are most relevant to a specific setting, for instance: examining the effects that personality traits which pertain to innovativeness, and particularly openness to experience, have towards online shopping. Finally, what is observed from

the literature is that examination of FFM has been carried out in either the offline or the online setting but not in the offline-online setting (i.e., in multichannel environment) which is the case in the present study. Moreover, literature has revealed mixed results as not all the employed traits from the five-factors were found significant or having effects on the examined behaviour.

2.5 Technology readiness literature review

2.5.1 Introduction

Technology readiness (TR) is a concept presented by Parasuraman (2000) and focuses on predicting the customer's tendency to adopt and use technology-based channels. TR is defined as *"people's propensity to embrace and use new technologies for accomplishing goals in home life and at work"* (Parasuraman, 2000 p.308). Hence, it is viewed as an overall state of mind that comes as a result of mental disposition of enablers and inhibitors. These enablers and inhibitors collectively determine an individual's tendency towards technology (Parasuraman, 2000). The technology readiness construct comprises four different dimensions: optimism, innovativeness, discomfort, and insecurity (Parasuraman, 2000, Westjohn et al., 2009). Optimism and innovativeness are considered positive drivers that encourage people to try on new technological products or services, and to hold positive feelings towards technology in general. Meanwhile, discomfort and insecurity are viewed as inhibitors to technological usage, as they present the negative drivers or feelings towards using and accepting technology (Westjohn et al., 2009; Lin and Hsieh, 2006; Parasuraman, 2000).

The optimism dimension is an individual's perception that technology provides more control, flexibility and efficiency in his/her life. Innovativeness reflects the individual's need to be one of the early adopters of technology. The discomfort dimension refers to the feelings of pressure or not being in control of technology. The insecurity dimension

reflects one's doubts that technology will work as it supposed to and will go wrong (Westjohn et al., 2009). An individual attitude towards technology as suggested by Parasuraman (2000) falls on a continuum which ranges from strongly positive to strongly negative, with one feeling or the other illustrating dominance on the individual attitude towards technology (Westjohn et al., 2009; Parasuraman, 2000).

Parasuraman (2000) has advocated that future research needs to examine the antecedents and consequences of the technology readiness construct overall as well as each dimension. Similarly, (Lin et al., 2007; Liljander et al., 2006) noted that empirical support of the impact technology readiness has on customer's adoption and usage of new technologies is scarce and requires more investigation. Some of the published studies which provided empirical examination of the TR concept are (Liljander et al., 2006; Lin and Hsieh, 2006; Tsikriktsis, 2004; Taylor et al., 2002). For example, Tsikriktsis's (2004) study was a replication of Parasuraman's (2000) technology readiness index (TR) data and was collected from a sample of United Kingdom customers, and the study found support for the four dimensions of TR.

In the insurance industry, Taylor et al. (2002) have tested the TR index to assess managers in making decisions about utilizing the online channel. However, study findings reported support for the validity of two dimensions only, namely optimism and innovativeness, as discomfort and security dimensions could not be fully validated. Also, optimism and innovativeness were found to be closely related to the overall TR. In addition, a study by Liljander et al. (2006) investigating customers' adoption of European airline technology-based channels have yielded a similar result; whereby optimism and innovativeness dimensions were supported, and discomfort and security were found not to be reliable.

Moreover, research in service literature has illustrated the importance of TR and service quality in predicting attitudes towards self-service technology. For example, Lin and Hsieh (2006) have investigated the influence of customers' technology readiness (TR) on their satisfaction and behavioural intention towards self-service technologies (SST), and their perception and adoption of different SSTs. A self-administrated questionnaire was used for data collection and respondents were asked to evaluate the self-service channels of a service provider they contacted in the past six months. Respondents had various experiences with different service providers, for instance: the transportation sector, which includes airlines, trains, and subways; the financial sector (i.e., ATM, Internet banking or mobile banking); and other services such as cinema. Structural equation modelling results revealed the existence of a direct and positive relationship between TR and behavioural intention towards self-service technology SST-BI (γ=0.10, t=2.16, p<0.05).

Meanwhile, the proposed positive relationship between TR and customer satisfaction with SST service quality was not confirmed. Although the relationship between TR and satisfaction with SST was not supported in Lin and Hsieh (2006), they have presented a conceptual model which highlighted the causal relationships between the study constructs, which showed that the effect of TR on customer's satisfaction with SST is mediated by SST service-quality. However, the postulated direct positive link between TR and customer's satisfaction with SST was supported in a study conducted by Liljander et al. (2006) to investigate the effect that customers' TR has on their evaluation of specific service providers implementing new self-service technology; namely the usage and adoption of internet check-in for European airlines by customers on a loyalty program. Logistic regression analysis results reported a significant positive effect of customers' TR on internet check-in service quality, satisfaction and their loyalty.

Finally, exploring retail bank customers' readiness to use a technology-based channel in this study, which is about the on-line banking channel, is important especially when examining this relationship in a multichannel environment as no studies were reported in the literature which linked between TR and customer satisfaction with multichannel retail online channel performance. Although it is documented in the SST literature that the more satisfying experience customers gain from using SST, the more likely they are to use the channel again and to recommend it to others. Examining the moderating effect of customer's technology readiness on satisfaction with the multichannel retailer's on-line channel performance and behavioural intention is believed to be essential for multichannel retailers in employing online channel.

2.5.2 In conclusion

Technology readiness is considered to be an important variable in understating consumers' perceptions and attitudes towards different self-service technologies, as firms and service providers are implementing new self-service technologies, customers are also gaining access to more and more SST. Although extant literature has provided evidence of the impact that TR has on SST service quality, satisfaction and behavioural intention (i.e., loyalty), previous research advised that there is a need for more investigation into how technology readiness performs as a predictor of customers' adoption and evaluation of self-service technologies.

Chapter 3: Theoretical background and research hypotheses

3.1 Introduction

The present study seeks to develop a conceptual model illustrating the influence that customer personality might have on satisfaction with a multichannel retail bank, and the resulting behavioural intention; by drawing on the extant literature on personality traits and technology readiness. This chapter first discusses the theory of reasoned action, which is the underpinning theory of this study. Then, the conceptual model is presented followed by a discussion of the related hypotheses based on the main constructs of the model. The chapter concludes with a summary.

3.2 Theory of reasoned action

Social science studies have faced enormous challenges in identifying a consistent number of variables which influence the uniformity of the relationship between attitude and behaviour. However, this lack of constant factors which affect the attitude-behaviour relationship in the literature encouraged researchers in the mid 60's to steer their efforts towards categorising these factors. As result a number of factors pertaining to different issues were identified, which varied from methodological issues such as validity and internal consistency of attitude and behavioural measures. Other issues referred to psychological conditions which were related to self-monitoring and individuals' rational abilities in performing attitude and behaviour related tasks whilst others represent the social and situational conditions, for example pressure from others (Liska, 1984).

All these issues or factors were labelled "other" variables, which contributed to the inconsistency of the attitude-behaviour relationship, and it was only towards the end of the 1960s that these factors were acknowledged as a multivariate research problem and not a bivariate one (Liska, 1974; 1984). Consequently, the focus of the majority of

multivariate researches have been directed towards classifying under which circumstance the relationship between attitude and behaviour is affected. This has led to the emergence of three main methodological issues:

1) Measurement validity, where the emphasis is on the validity of questionnaire instrument items.

2) Multiple attitudes, addresses the inconsistency in the attitude-behaviour by adding more related attitudes to the formula. For example, the effect of other variables such as social class, sex and race were added to attitude towards black individuals' in order to predict discrimination (behaviour) towards black people.

3) Social support, the focus of studies under this category has varied; some looked at the importance of social support as an independent construct on the attitude-behaviour relationship without any consideration to the underlying structure. Others have investigated the independent impact of social support as well as the combined effect of both attitude and subjective norm on behaviour. The final group of studies focused on the relationship between attitude and social support (Liska, 1974).

However, this approach to the research did not result in providing a clear definition of 'attitude' which researchers could agree upon, as each study introduced a new set of variables different from the one before in a way that the amount of consideration given to clarifying the definition of 'attitude' and organizing variables into general categories according to their causal process were still scarce (Liska, 1984).

This need for a clear definition motivated researchers such as, Acock and Defleur (1972), Fishbein and Ajzen (1975) and Triandis (1977) to introduce attitude-behaviour models. In an attempt to present a definition of attitude, which can be justified in terms of theory and operation, these models have agreed on defining attitude as a positive or negative appraisal of an object (Liska, 1984). Additionally, among these models, which

were established between the late 1960's and mid 1970's, Fishbein and Ajzen's (1975) model, called the theory of reasoned action (TRA), is considered to be the most influential. Fishbein and Ajzen (1975) have succeeded in drawing a clear conceptual differentiation in their model between the three main elements of the traditional attitude theory: affect cognition and conation. Fishbein and Ajzen's (1975) model has provided guidance and contributed to the direction of attitude-behaviour research by clarifying the definition of 'attitude' and conceptualizing the increasing number of variables, or 'other variables', which were introduced in the late 1960's up to mid1970's (Liska, 1984; Fishbein and Ajzen, 1975).

The theory of reasoned action's main purpose is to explain an individual's volitional behaviour. As such, volitional behaviour is described as an act that an individual is capable of and intending to perform (Hale et al., 2002; Bagozzi, 1992). As a result, the theory's prime proposal implies that the strongest and most direct predictor of an individual's performance (i.e., volitional behaviour) is his/her intention to perform the behaviour (Hale et al., 2002; Madden et al., 1992; Fishbein and Ajzen, 1975).

'Behavioural intention' is defined by Triandis (1980) as instructions that individuals give to themselves to perform in specific way (Bagozzi and Yi, 1989). The TRA's hypothesis states that behaviour intention (conation) is the main direct or immediate cause of behaviour, which is in turn caused by attitude (e.g., the individual positive or negative evaluation of performing the behaviour) and subjective norm (i.e., individual's perceived social pressure to perform or not to perform the behaviour) (Bagozzi, 1992; Madden et al., 1992; Liska, 1984).

Attitudes reflect beliefs about the consequences of behaviour, which are formed by the subjective evaluation of these consequences; whereas subjective norms reflect beliefs about the behavioural expectation of significant others, which are inclined by the motivation to confirm to them (Madden et al., 1992; Liska, 1984) . Attitude and

subjective norms both affect behaviour indirectly though their influence on behaviour intention. In addition, the influences that all the other variables have on behaviour are considered to be through their effects on belief which are the foundation of attitudes and subjective norms (Madden et al., 1992; Fishbein and Ajzen, 1975).
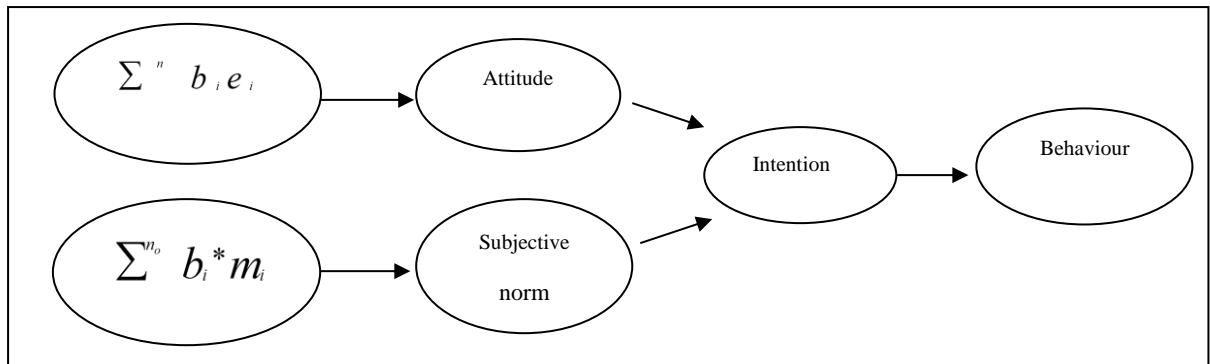
Figure 3-1: Theory of reasoned action (Bagozzi, 1992)

As can be seen in (Figure 3-1) according to the theory of reasoned action, behaviour (B) is a function of behaviour intention (BI), behaviour intention (BI) is function of both attitude (A) and subjective norm (SN). Attitude and subjective norms are functions of beliefs. For attitude, beliefs (b_i) that performing behaviour will result in specific consequences combined with the evaluation (e_i) of these consequences ($b_i\ e_i$). As for subjective norms, beliefs ($b_i *$) that others anticipate that an individual will or will not perform the behaviour, combined with the person's motivation to conform (m_i) with these significant others ($b_i * m_i$) (Bagozzi, 1992; Liska, 1984).

3.2.1 Personality trait and the theory of reasoned action (TRA)

Some personality traits were found to have a moderating effect, which influences the correlation between attitude and behaviour; such as, self-monitoring and the need for cognition (Aiken, 2002). For example, a study conducted by Petty and Cacioppo (1986) has showed that voting choice of an individual who is highly in need of cognition is more likely to be predicted than an individual with a low need of cognition. The authors' argument is that a person with a high need of cognition tend to process information carefully, which as a result leads to building strong attitudes that can predict behaviour (Aiken, 2002).

Also, in the (TRA) model individuals differences in terms of personality, mood, emotion, intelligence, value, stereotypes, general attitudes and experience, and their demographics such as age, gender, education, income, religion, race, and ethical culture variables, are presented as background variables (Albarracín et al., 2005). According to the theory, these background variables have an indirect influence on intention and behaviour through their effect on behavioural beliefs and normative beliefs which in turn influence attitude and subjective norms (Albarracín et al., 2005; Fishbein and Ajzen, 1975).

3.2.2 TRA in theory and practice

The theory of reasoned action has a theoretical and practical application. From the theoretical point of view, and in the field of consumer behaviour, it has provided excellent predictions of consumer intention and behaviour, as well as providing a platform for identifying where and how to handle consumer attempts of change his/her behaviour (Bagozzi, 1992; Sheppard et al., 1988). This was supported by a meta-analysis conducted by Sheppard et al (1988) which suggested that TRA is an excellent predictor of behavioural intention and behaviour, and proven to be extremely useful in

identifying where and how to target behaviour alteration strategies (Madden et al., 1992; Sheppard et al., 1988). From the practical point of view, a large portion of studies have implied, tested and extended this model in different areas of research such as: consumer health, voting, attendance behaviour, recreational and organizational behaviour (Baggozi, 1992; Liska, 1984).

Moreover, a huge part of the theory's success is related to its flexibility in adopting undergoing changes over the years (Bagozzi, 1992). These changes were categorized into two types. The first type is related to adding new variables to the theory, called 'other variables', which have either main or moderating effects on attitude-behaviour relationship. An example of this type of change is the theory of planned behaviour (TPB) by Ajzen (1985) which is an extension of the theory of reasoned action. TPB has introduced perceived behavioural control as a dependent construct that has a direct and indirect impact on behaviour through behavioural intention (Bagozzi, 1992, Madden et al., 1992). The second type of change concerns altering the internal structure of the theory, for instance, Liska (1984) has suggested that there is a room for more development in the theory's structure in relation to the order and the interaction between the theory's existing elements (Bagozzi, 1992;Liska, 1984).

3.2.3 Theory of reasoned action critique

TRA has faced criticism in relation to the following issues. Firstly, the theory excludes a wide range of behaviours from its exploratory scope and includes only volitional behaviours. Second, the theory introduces behavioural intention to mediate the attitude-behaviour structure (Hale et al., 2002). As mentioned earlier, in order for the theory to provide explanation to any behaviour, it requires that behaviour should be under volitional control (Madden et al., 1992; Bagozzi, 1992; Liska, 1984). Thus, the theory has disregarded a wide range of behaviours including actions which are not voluntary or

do not require making conscious decisions, for example: spontaneous, impulsive and habitual behaviours.

Also, the theory has eliminated behaviours that require special skills to perform, the availability of unique opportunities or resources and those which demand cooperation with others to perform (Hale et al., 2002). In that manner (TRA) is not applicable to non-volitional behaviour and attitude towards objects, people, goals, outcomes and institutions (Bagozzi, 1992, Hale et al., 2002). This means that behaviour which is not under volitional control cannot be explained by the theory. Fishbein and Ajzen (1975) argue that most of the individual behaviours, which are interesting to social science researchers, are volitional (Liska, 1984).

Opposing this argument, Liska (1984) advocated that the Fishbein and Ajzen model has led to creating a delusive dichotomy. Given that a variety of behaviours of interest fall under volitional control. Nevertheless, behaviours ranging between those require a minimum amount of skills and social cooperation, and those requiring a maximum amount of skills or maximum social cooperation in order to perform appears equally important and interesting to social science. Therefore, behaviour is neither volitional nor non-volitional according to Liska (1984). Indeed, *intention is* considered to be the crucial concept in the Fishbein/Ajzen model where it is conceptualized as the direct cause of *behaviour* and as a mediator of the other two factors: *attitude* (affective evaluation) and *subjective norms* representing the model (Bagozzi and Yi, 1989).

On the one hand, critics such as Liska (1984) have suggested that intention is not always an adequate cause of behaviour and that in some situations individuals fail to do what they intended because of their lack of resources and opportunities. Similarly, Bagozzi et al. (1989) argued that, attitude can stimulate behaviour (action) with little or no thought (intention), as in the case of impulse buying, routine response behaviour and

purchase made under emotional pressure. On the other hand, in the field of consumer behaviour, many studies are in line with the theory of reasoned action, that intention is the main mediator of the attitude-behaviour relationship (Bagozzi and Yi, 1989). The two meta-analysis conducted by Kim and Hunter (1993a and 1993b) provide supporting evidence to the theory's proposition, as such introducing intention construct to mediate the attitude-behaviour relationship to allow volitional behaviour to be predicted more adequately (Hale et al., 2002; Kim and Hunter, 1993a; 1993b).

3.3 Conceptual model and hypotheses
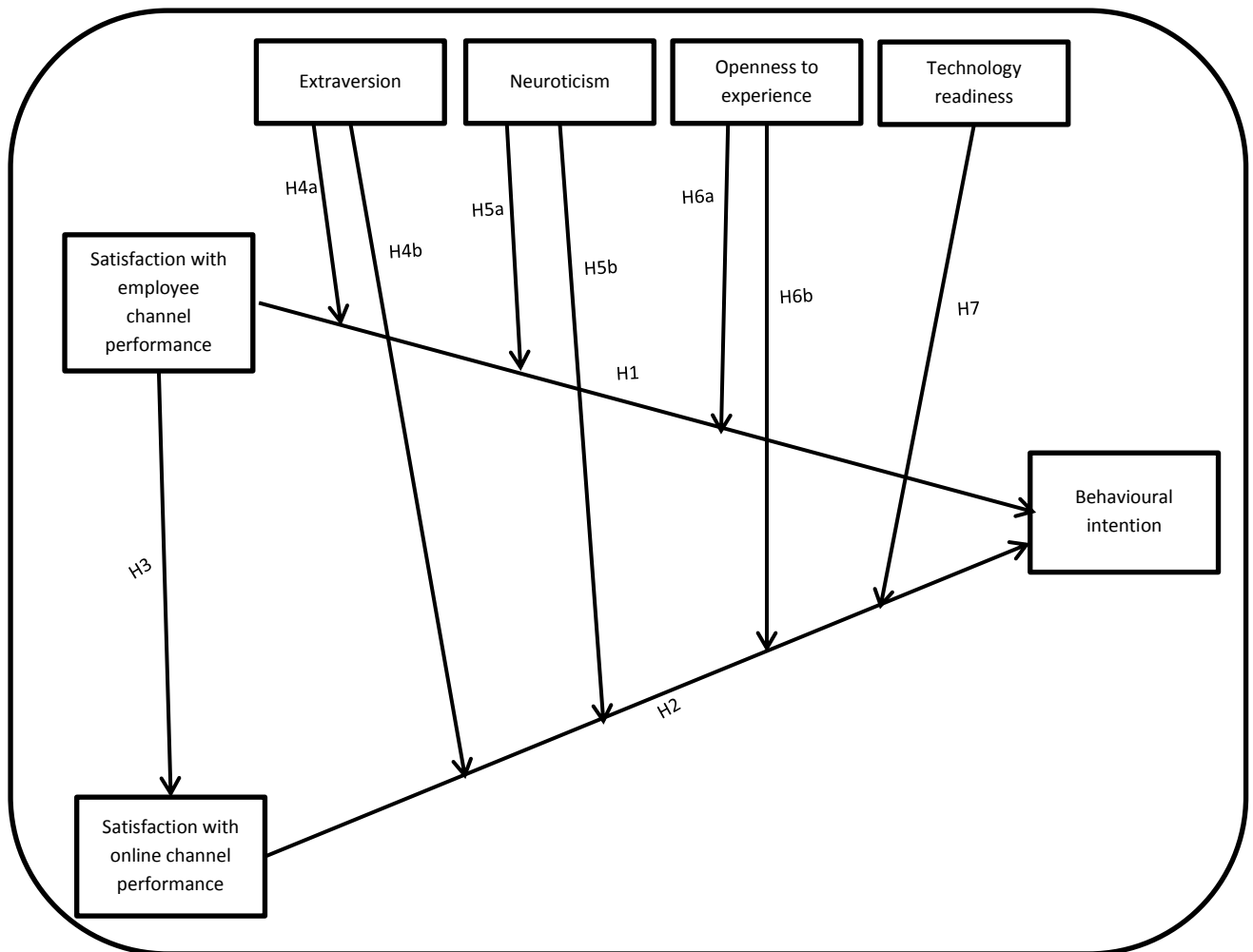
Figure 3-2: Conceptual model of the moderating effects of multichannel customers' personality
on satisfaction and behavioural intention

This research model (see Figure 3-2) is derived from TRA to examine customer satisfaction with retail bank channel performance and the underlying behavioural intention. Specially, the attitude-behavioural intention link will be utilized. The theory of reasoned action hypothesizes behaviour intention, as the function of two components: attitude (A) and subjective norm (SN) (Bagozzi, 1992; Shim and Drake, 1990; Liska, 1984). These two components affect behaviour intention (BI), which according to the theory is the best predictor of actual behaviour (B). Thus, attitude towards behaviour is

formed by collective beliefs and evaluations of these beliefs, which are made by individuals.

In this study, two constructs, which are satisfaction with employee channel performance and satisfaction with online channel performance, are proposed to influence behavioural intention directly. Previous studies have conceptualized satisfaction as an attitude; also a meta-analysis and recent reviews have reported attitude as a predictor of behaviour intention (Arikan, 2010; Van Birgelen et al., 2006). In line with the theory of reasoned action, satisfaction in this study is conceptualized as an attitude that is generated by aggregating substantial beliefs and evaluations. Hence, in the multichannel environment customer evaluation of retail bank channels performance, it will be viewed as the customer overall satisfaction. This means taking different channels (e.g., offline/employee, and online banking) in to account, when assessing customer satisfaction with multichannel performance.

According to TRA's assumption, attitude influences behaviour indirectly through its direct effect on behaviour intention. Therefore, in the retail bank multi-channel context, we propose that customer satisfaction with channel performance leads to positive behaviour intention. For example, customer satisfaction with the employee competency and attitude in performing the desired service leads to forming a positive evaluation of the channel's performance, which in turn exhibits the customers' willingness to recommend the bank to others (spread positive word-of-mouth) and to stay loyal to the bank. On the contrary, if the customer is dissatisfied with the employee's performance, this may lead to the expression of negative behaviour, such as not being willing to purchase any financial products in the future from the bank.

As mentioned in the previous section (3.2.1), individual differences were introduced by the theory TRA as background variables. Consequently, this study propose that four constructs moderate the direct relationships between satisfaction with employee channel performance and satisfaction with online channel performance on behavioural intention. Variables of interest in this research are those which pertain to customer personality traits and these are: Extraversion, neuroticism, openness to experience and technology readiness (Hamburger and Ben-Artzi, 2000; Parasuraman, 2000; McCrare and Costa, 1996). In line with TRA proposition; background variables have an indirect effect on behaviour intention as well as the actual behaviour. The current research hypothesises that the chosen customer characteristics serve as moderators and this moderating effect might strengthen or weaken the direct positive relationship between customer satisfaction with multi-channel performance and the underlying behavioural intention.

3.3.1 Satisfaction with multi channels

In this study, customer satisfaction with service retailers' multiple channels in the retail bank context is conceptualized as customers overall satisfaction. Previous studies have reported satisfaction to be an important measure of performance as well as antecedents of repurchase behaviour. In addition, satisfaction with the service was reported to have a positive effect on customer retention (Szymanski and Henard, 2001; Reynolds and Beatty, 1999; Oliver, 1997). Furthermore, literature has reported the important role that 'employee performance' plays in influencing customer satisfaction (Price et al., 1995). Similarly, Van Dolen et al. (2002) has hypothesized in a study conducted within a furniture retail format, that customer perception of an employee's performance and competences had a positive impact on the customer's face-to-face encounter satisfaction (Van Dolen et al., 2002).

A customer's relationship with a bank employee has a considerable influence on his/her satisfaction and consequently on his/her behavioural intention; besides, receiving the core service, customers also receive benefits from the service provider. These benefits (relational benefits) are developed and received just by being in a long-term relationship with the service provider (Vázquez-Carrasco and Foxall, 2006). Studies have demonstrated that loyalty to the sales person has a positive influence on customer loyalty to the store. Furthermore, researches have presumed that satisfaction is an antecedent of customer loyalty (Reynolds and Beatty, 1999). Previous research showed evidence of the direct effect of customer satisfaction on repurchase intention (Oliver, 1997).

Also, the positive relationship between customer satisfaction and repurchase intention is presented by Szymanski and Henard (2001), and a positive relationship between online satisfaction and loyalty was found in Shankar et al.'s (2003) findings, which was found to be stronger online than offline (Van Birgelen et al., 2006; Shankar et al., 2003). Similarly, research in multichannel services which utilized online as additional channel has specified that the quality of both online and other traditional channels have influence on the customer's overall satisfaction (Montoya-Weiss et al., 2003). As a result of the previous discussion, this research expects both customer satisfaction with an employee and online banking channels to have a positive relationship with behavioural intention, as the following hypotheses indicate.

H1*: There is a positive relationship between customer satisfaction with an employee channel's performance and behavioural intention.*

H2*: There is a positive relationship between customer satisfaction with an online channel's performance and behavioural intention.*

3.3.2 Behavioural Intention

In the service literature there is evidence linking service dimensions to specific behaviour intentions. For instance, Zeithaml and Berry (1988) found a positive and significant relationship between the customer's perception of service and willingness to recommend the company to others. Also, in Boulding and Colleagues (1993), a positive correlation was reported between service and behavioural consequences. Behaviour outcomes were measured by two items: repurchase intention and willingness to recommend (Zeithaml et al., 1996). Customers demonstrate certain positive behaviours, for instance, increasing their purchase volume and praising and recommending the service provider to others, which indicates satisfaction and forming a bond with their service provider (Zeithaml et al., 1996).

3.3.2.1 Word of mouth

Customers often express their judgment about certain products or services in their informal conversations. Word of mouth is found to be an important factor influencing consumers' decision making regarding different products and service categories (Reynolds and Beatty, 1999). Thus, word of mouth is an old mechanism which manufacturers and retailers have used in developing products and services. Also, word of mouth is one of the behaviour intentions which have been argued as being an outcome of customer satisfaction. Accordingly, customers' expressing positive word of mouth behaviour is considered to be the result of their high levels of satisfaction; for example, a firm and sales person are more likely to get a good recommendation from satisfied customers' than dissatisfied ones (Reynolds and Beatty, 1999). Furthermore, results of a study in the German banking industry have indicated an association between different aspects of service quality and some behavioural outcomes. For instance, a study has found that there is a close relationship between tangible aspects of service quality and positive customer word of mouth (Manrai and Manrai, 2007).

On the other hand, expressing negative behaviour such as negative word of mouth is a form of complaining, which results from customers having a dissatisfying experience with the service provider, particularly when the product or service fails to meet the customer needs and expectations. Negative word of mouth provides customers an opportunity to express their disappointment to others and gain their sympathy (Szymanski and Henard, 2001). In addition, customers telling others about their dissatisfying experience with a particular product or service might turn potential buyers away.

3.3.2.2 Repurchase and loyalty

Oliver (1997) has described repurchase intention and loyalty as aspects of a taxonomy and similar in their nature, meaning that like repurchase loyalty is also an outcome of customer satisfaction and, in fact, action loyalty was operationalized as repeat purchase or usage (Zboja and Voorhees, 2006; Szymanski and Henard, 2001). Also, in brand and store contexts repurchase intention is used as an element of loyalty (Zboja and Voorhees, 2006). As for loyalty, Oliver (1997) has discussed that there is a distinction between loyalty to the sales person and loyalty to the firm or the service provider; the former is labelled interpersonal loyalty (Reynolds and Beatty, 1999).

Previous studies have argued that satisfied customers are more loyal than dissatisfied customers'; Vázquez -Carrasco and Foxall's (2006) findings supported the positive and direct relationship between satisfaction and loyalty. However, other studies have argued that satisfaction may not in itself be enough to lead to loyalty (Vázquez-Carrasco and Foxall, 2006). Nevertheless, this study will follow the former studies and propose the existence of a positive direct relationship between satisfaction and behavioural intention.

3.3.3 Channel synergy

Employing multichannel systems lays the path for a business to achieve channel synergies, by facilitating for traditional channels to work with online channels, in particular as these channels share the same distribution, infrastructures, operations, marketing and customers, as well as taking advantage of the range of benefits it provides, for example: low costs in different areas such as inventory and marketing promotions, improve customers trust, and extend the product market geographically (Steinfield, 2004).

Although, synergies between traditional and online channels could lead to the improvement of the customers' experience, which then can transform into positive behaviour such as staying loyal and repurchasing the service again, yet on the other side, if a customer encounters an unsatisfactory performance from one channel this may have a negative impact on the customer's expectation and evaluation on the other channels. As conflict might arise between the traditional channels and the technology-based ones. Indeed, Verhoef et al. (2007) has noted that "the valence could turn out to be negative as well" (Verhoef et al., 2007 p. 132). As a result, customer satisfaction with the traditional channel performance reduces the intention to use the online channel. That is also supported in Falk et al. (2007), a study in an investment bank setting where customers' satisfaction with offline channels were found to decrease perceived usefulness and increase perceived risk of online channel (Falk et al., 2007). Therefore, the first step for creating a synergetic relationship between different channel formats should be identifying the way in which customers evaluate alternative channels (Falk et al., 2007, Van Birgelen et al., 2006).

For instance, a retailer who is facing difficulties with his offline channel performance would find it challenging to encourage customers to believe that his online channel will succeed in delivering a more satisfactory experience by providing an accurate and reliable services than the offline channel (Kwon and Lennon, 2009b).

As mentioned earlier, an online channel shares the same customers and brand with the existing offline (traditional) channels, and these customers extend their evaluation from the offline to the online channel (Yang et al., 2011). This means that offline channel performance has a positive impact on customer perception of the online channel performance. This phenomenon has being supported by the literature (Yang et al., 2011; Kwon and Lennon, 2009a; Kwon and Lennon, 2009b; Bhatnagar et al., 2003; Montoya-Weiss et al., 2003). For example, Yang et al. (2011) found that customers' views about a company's service quality offline have an impact on online service quality, both directly and indirectly through perceived entitativity. Similarly, Kwon and Lennon's (2009b) study reported the significant effect that a retailer's offline brand has on formation of online brand image as well as perceived risk and online customer loyalty.

Furthermore, Bhatnagar et al. (2003) introduced an expectation-transfer model as an attempt to examine if customer experience of service quality in one domain offline or online can influence their assessment of the other domain. Study results indicated that experience gained from offline service quality has a strong effect on the online domain.

Because achieving channel synergies is a fundamental aim in employing multichannel tactics where customer's satisfaction with one channel enhances the intention to use another channel in a complementary fashion (Verhoef et al., 2007; Balasubramanian et al., 2005; Wallace et al., 2004). For example, Wallace et al. (2004) have reported that customer satisfaction with one channel performance drives customer's repurchase behaviour and boosts intention to use the retailer's alternative channels.

Finally, study findings by Kim and park (2005) have confirmed the effect customers' attitude towards a retailer traditional channel has on their evaluation of the retailer's online channel (Yang et al., 2011). Inline with previous research and taking into consideration that online banking channel is relatively new in comparison with the employee traditional channel. In the current study, it is reasonable to expect that customers who are satisfied with the bank's employee channel performance to transfer their satisfaction to the bank's online channel.

H3: *Customer satisfaction with a service provider's employee channel's performance has a positive effect on his/her satisfaction with online channel performance.*

3.3.4 Personality trait, The Big Five

The focus of a large portion of previous research was mainly related to investigating and finding antecedents of a user's intention to utilize electronic channels, such as a retailer's website or internet banking (Yoon and Barker Steege, 2012). For example, Pikkarainen et al. (2004) proposed and tested a model, drawn from a technology acceptance model of factors influencing Finnish customers' acceptance of online channel. Five factors were identified as determinants of consumers' adoption of the online banking medium: perceived ease of use, perceived usefulness, perceived enjoyment, information on online banking, and security and privacy acceptance (Pikkarainen et al., 2004).

In addition, studies which examined the effects of different factors on users' adoption have found individual personality traits, especially innovativeness, to be a fundamental predictor of adopting decision of variety of technologies (Yoon and Barker Steege, 2012; Nov and Ye, 2008; Agarwal and Prasad, 1999). Moreover, there has been a growing interest in technology adopters' and users' personality in the information system field (i.e.,Yoon and Barker Steege,2010; Devaraj et al. 2008; Nov and Ye, 2008;

Li et al., 2006). According to Agarwal and Prasad (1999), innovative people are more likely to try out new technologies. Nevertheless, people vary as some are more innovative than others and these differences can be traced back to one's personality trait.

Personality traits are defined by Kleinmuntz (1967) as "the unique organization of factors which characterize an individual and determine his pattern of interaction with the environment" (Hurley, 1998 p. 116). These traits reveal the unique aspects of each individual which can be observed through their actions and thoughts (Devaraj et al., 2008). In addition, previous research in social psychology suggested that individuals' personality is the predictor of his or her beliefs and behaviour in different aspects of life (Yoon and Barker Steege, 2012; Nov and Ye, 2008).

In the personality literature there is a range of personality trait measurements available, yet there seems to be agreement among psychology scholars that most of these constructs can be classified into five main categories, which have become known as the Five Factor Model of personality (FFM); the model is commonly used to predict individual differences and the fundamental elements which explain the most common personality dimensions are referred to as the Big Five. They comprise of: Neuroticism (N), Extraversion (E), Openness to experience (O), Agreeable (A) and Conscientiousness (C) (Picazo-Vela et al., 2010, Devaraj et al., 2008; Bove and Mitzifiris, 2007; Judge et al., 2006; Roccas et al., 2002; McCrae and Costa, 1999).

Of the five personality traits three were chosen these are extraversion, neuroticism and openness to experience. Researchers choose was motivated by the fact that extraversion and neuroticism are the most dominant traits which exist in every personality trait scale; also, of the big five they are the only two introduced by as the theory of reasoned action (Ajzen and Fishbein, 1980). The theory views personality traits as external variables

(background variables), and the traits extraversion and neuroticism were used as an example of how personality traits might influence an individual's decisions to engage in specific behaviour (Devaraj et al., 2008). In relation to openness to experience it is the one trait of the big five that is believed to be relevant to the online usage that is supported by the information technology literature (i.e., Yoon and Barker Steege, 2010). Moreover, these traits were found the most relevant to the present study since it is conducted in a multichannel service environment where customers employ traditional offline and innovative online channels to obtain their banking services. Employing the whole model (i.e., Picazo-Vela et al., 2010) or some traits of the five factor model which are relevant to a particular setting is consist with the literature. For example, agreeableness, consciousness, extraversion and stability (Bove and Mitzifiris, 2007), openness to experience (Yoon and Barker Steege, 2010), extraversion and neuroticism (Matzler et al., 2005). Consequently for the present study personality traits extraversion, neuroticism and openness to experience were chosen as moderators of the relationship between customer satisfaction with multichannel performance and behavioural intention.

3.3.4.1 Extraversion

The theory of reasoned action has explicitly mentioned extraversion as an example of a personality trait which could influence an individual's behaviour through his/her beliefs (Devaraj et al., 2008). Indeed, in the field of industrial organization psychology the extravert personality trait was found in meta-analysis associated with both job performance (Barrick and Mount, 1991) and job satisfaction (Judge et al., 2002). In the former, a meta-analysis conducted by Barrick and Mount (1991) on individuals' personality magnitude in the workplace, in particular job performance, has shown extraverts exhibiting high performance especially with jobs where social interaction is part of the job requirement, such as management and sales profession. Also, (Judge et

al., 2006) has mentioned because these individuals exhibit high ambitions they are more suited for leadership roles. Meanwhile, in the latter meta-analysis, the positive correlation between employee's extravert personality and job satisfaction was found to be consistent across studies.

Extraversion was further examined in the online environment. Bosnjak et al. (2007) found that the extravert personality trait has a small but significant effect on consumer's readiness to purchase products or services online. In addition, extraverted individuals express high self-efficacy (Picazo-Vela et al. 2010). Because these individuals' believe in their ability to deal with complex systems they are more willing to adopt and use self-service technology based channels (e.g., online banking). In addition, with regards to these characteristics in terms of sociability and interaction and the innovativeness they possess, this is the first time where the moderating effects of this trait is examined in multichannel banking context. Although, extraversion trait represents the interpersonal dimension in the five-factor model, however, customers who score low on extraversion are expected to be less satisfied with the employee channel performance and as a result weakens the positive relationship between satisfaction with employee channel performance and behavioural intention in one hand. On the other hand, extravert individuals believe in their abilities in using technology-based channels such as the online banking channel it is expected that these individuals will express a positive attitude towards the banks online channel, which leads to strengthening the positive relationship between satisfaction with online channel performance and behavioural intention. Thus, the following hypothesis are put forth.

H4a: *Extraversion will weaken the positive relationship between customer satisfaction with an employee channel's performance and behavioural intention.*

H4b: *Extraversion will strengthen the positive relationship between customer satisfaction with an online channel's performance and behavioural intention.*

3.3.4.2 Neuroticism

According to Costa and McCrae (1988) neuroticism is considered a prime personality trait in any personality scale (Judge et al., 2006). Also, emotional stability encompasses two propensities, one dealing with anxiety (instability) and the other addressing individuals wellbeing (insecurity and depression) (Judge et al., 2006; Barrick and Mount, 1991). In general neurotic individuals' lack the emotional stability and positive mental adjustment (Judge et al., 2006). Individuals who report high scores under this trait are generally anxious, depressed, angry, impulsive and insecure (Devaraj et al., 2008; Roccas et al., 2002; Piedmont, 1998). Also, they tend to react negatively towards events in life and at work (Devaraj et al., 2008). For example, the literature has reported the existence of a negative association between neuroticism and career success (Judge et al., 2006); likewise, a strong negative correspondence between neuroticism and job satisfaction was confirmed in Judge et al.(2002) meta-analysis. The negative effect of this trait has also extended to the internet as reported by Picazo-Vela et al. (2010) in a study on intention to provide an online review. Individuals who score low under this trait were found to be more confident than those who score high (Picazo-Vela et al., 2010).

Unlike extraverts, neurotic individuals feel anxious from interacting with others which reflects on their negative evaluation and dissatisfaction with employee performance. That is because consuming or obtaining the service products requires interaction with an employee. Furthermore, because they tend to exhibit negative feelings toward online channels, it is expected that this will extend to the online banking context. This is because online banking requires knowledge and familiarity with the usage of the

internet medium as a channel to purchase financial service products. It is expected that customers who are high in neuroticism will demonstrate frustration and anxiety when using the channel to purchase services and to associate the channel with negative experiences when evaluating satisfaction with the channel's performance, and that would lead to a negative effect on the customer's behavioural intention.

H5a: *Neuroticism will weaken the positive relationship between customer satisfaction with an employee channel's performance and behavioural intention.*

H5b: *Neuroticism will weaken the positive relationship between customer satisfaction with an online banking channel's performance and behavioural intention.*

3.3.4.3 Openness to experience

Individuals who fall under this personality trait are described as creative, original, flexible, curious, sensitive, intellectual, imaginative, unconventional, and open minded. Moreover, these individuals tend to be self-motivated and open to new ideas (Devaraj et al., 2008; Nov and Ye, 2008; Roccas et al., 2002; John and Srivastava, 1999). The opposite are those individuals whose motivations are driven by the need for security and to remain in familiar and unchanged situations, disregarding new and different ways in addressing or solving problems. Also, they tend to have a limited range of interests (Yoon and Barker Steege, 2012; Roccas et al., 2002). Indeed, individuals who score highly on this trait are flexible in changing their ideas as a result of new experiences and are willing to try different activities and new things, for example: new products or new shopping channels. In contrast, those individuals who score low on the openness scale are expected to be more attached to their routine and not keen on change (Devaraj et al., 2008; Roccas et al., 2002).

As people who fall under this trait are described as creative and unconventional, it is reasonable to expect this trait to be more related to technology adoption and usage than

the other traits in the Big Five model. However, to the researcher's knowledge there are no previous studies which incorporated personality traits into attitudes towards online banking and behavioural intention, except a study by Yoon and Barker Steege (2012). In their study openness to experience was proposed as an antecedents of online banking and having a positive effect on channel usage. In relation to the current study, personality trait is extended to the multichannel context since there is evidence in the literature of the usage of personality traits in different contexts.

Conversely, motivations of individuals who score low on this trait are driven by the need for security and to remain in familiar and unchanged situations, disregarding new and different ways in addressing or solving problems. Also, they tend to have a limited range of interests (Yoon and Barker Steege, 2012; Roccas et al., 2002). As a result it is expected that, individuals who are less open to experience are more conventional, and they tend to be satisfied with conducting their banking activities through the banks traditional employee channel, consequently openness to experience would strengthen the positive relationship between satisfaction with employee channel performance and behavioural intention. Whereas, customers who are characterised to be open to experience will score highly on this trait and would be more satisfied with using the bank's innovative online channel to obtain financial services instead of the traditional channels. Consequently,

H6a: *Customer's openness to experience will strengthen the positive relationship between his/her satisfaction with the employee channel's performance and behavioural intention.*

H6b: C*ustomer's openness to experience will strengthen the positive relationship between his/her satisfaction with the online banking channel's performance and behavioural intention.*

3.3.5 Technology readiness

Technology readiness (TR) is an attitudinal construct that refers to an individual's tendency to use new technologies for achieving goals in life. There is evidence in the literature supporting technological readiness as a predictor of technological usage (Westjohn et al., 2009; Lin and Hsieh, 2006; Parasuraman, 2000). For example, in Parasuraman's (2000) study, technology readiness has displayed its ability to be used as a predictor of individuals' usage of technology-based services. The study's results have indicated that individuals who score high on TR are more likely to purchase or sell stocks using the internet and buy plane or train tickets from self-service machines; moreover, these individuals are mobile phone owners and usually have internet access (Parasuraman 2000).

For the current study, investigating the influence that TR has on customers' satisfaction with online banking is important. That is because TR plays a fundamental role in providing a general explanation of customers' attitude towards self-service technologies and the resulting behaviour (Westjohn et al., 2009; Lin and Hsieh, 2006; Yen, 2005). Furthermore, online banking is regarded as a self-service channel whereby customers utilise the service without the need to interact with assistance from the service provider (Dabholkar and Bagozzi, 2002).

3.3.5.1 Technology readiness and satisfaction

The foundational theory driving the proposed study's conceptual model is the theory of reasoned action, as explicitly mentioned in the theory section, and the interest of the study lies with the link between attitude and behavioural intention. TR and the likelihood of consumers adopting new technologies are incorporated in the technology acceptance model TAM by Davis et al. (1989), which is adopted from the theory of reasoned action; the model represents general aspects of the potential determinants and

inhibitors of technology acceptance (Al-Somali et al., 2009; Dabholkar and Bagozzi, 2002).

Furthermore, technology readiness is described as an overall state of mind that exhibits positive feelings of optimism and innovativeness as well as negative feelings of discomfort and anxiety whenever an individual comes in contact with a technology based service. Researchers (Westjohn et al., 2009) have elaborated on the well-established link between TR and technology usage. In terms of linking TR to customer satisfaction with the online banking channel, previous research (Liljander et al., 2006; Yen, 2005) has advocated that customers with high TR and who are willing to use and adopt technology based services are more likely to find their experience pleasant and satisfactory than those with lower TR. As a result, this research extends this knowledge into the multichannel service and the following hypothesis is introduced.

H7: *Technology readiness strengthens the positive relationship between customers' satisfaction with the online banking channel performance and behavioural intention.*

3.3.6 Summary

This chapter has covered the research's foundational theory. This has included the primary components of the theory of reasoned action and discussion about background variables. Also, some of the criticism that the theory received was highlighted. This was followed by introducing the research's framework which portrayed the proposed causal relationships between the study's variables. The model show the proposed moderating effects of the personality traits extraversion, neuroticism, openness and technology readiness construct on customer satisfaction with banks' multichannel performance and their consequential behavioural intention. Finally, hypothesis were formulated and discussed.

Chapter 4: Research Methodology

4.1 Introduction

The discussion in this chapter pertains to the philosophical school of thoughts, research approach and strategy and research design which have been adopted in order to achieve the study objectives. This chapter starts with an introduction highlighting the definition and the aim of conducting marketing research, followed by a diagram displaying the different stages that the research goes through before reaching the final design which facilitates collecting data for the purpose of addressing the research inquires. The research design stage includes details of the study population, the chosen sampling type probability or non-probability and the questionnaire administering method, whether it is self-administered or supervised. This is followed by data analysis procedures, which included assessing the scales' reliability, and the different types of validity. In addition, it justifies the researcher's choice in employing structural equation modelling and assesses both the measurement and structural models.

4.1.1 Introduction to Marketing Research

Marketing research aims to assist marketing managers in making better decisions by providing them with information about the potential opportunities or threats in their business environment. As this environment is highly competitive coupled with the ongoing advancement of information technology, mangers' need for marketing research is becoming more and more crucial to react to marketing opportunities or problems (Baker, 1991).

Thus, the American marketing association AMA (1987) defines marketing research as "the function that links the consumer, customer and public to the marketer through information-information used to identify and define marketing opportunities and problems; generate, refine, and evaluate marketing actions; monitor marketing performance; and improve understanding of marketing as a process. Marketing research specifies the information required to address these issues; designs the method for collecting information; manages and implements the data-collection process; analyses the results; and communicates the findings and their implications" (Proctor, 2003 p.3).

In addition, it has been stated that the "function of marketing research is to provide information that will assist marketing managers in recognizing and reacting to the marketing opportunities and problems" (Tull and Hawkins, 1993, p. 4).

In line with the previous definitions the author Chisnall (1992) has noted that marketing research is a discipline of gathering and assessing particular data for the purpose of enabling managers or suppliers to gain a better understanding of their customers' needs. Since, there is some degree of uncertainty associated with any decision making these data collection procedures are used as mean of controlling and reducing the elements of risk in marketing proposal (Proctor, 2003).

Finally, in relation to the decisions managers make, Parasuraman (1986) stated that decisions which mangers need to make come under three main types: setting marketing goals, developing and implementing marketing plans, and evaluating the effectiveness of marketing plans (Baker, 1991). From the definition of the function of marketing research it is clear that obtaining information via collecting data is the primary goal which provides help to mangers to make a decision. However, before tackling the different methods of obtaining data, research goes through different phases and in each phase has steps that need to be considered, such as which research strategies to employ and whether it is going to be experimental, a survey or a case study. Saunders et al. (2000) have described the research process as an onion and in the centre of the onion is the data collection, and each layer represents a stage and what should be done in this stage. For the current study, Saunders et al. (2000) research process "onion" will be adopted to outline stages carried out in this study.
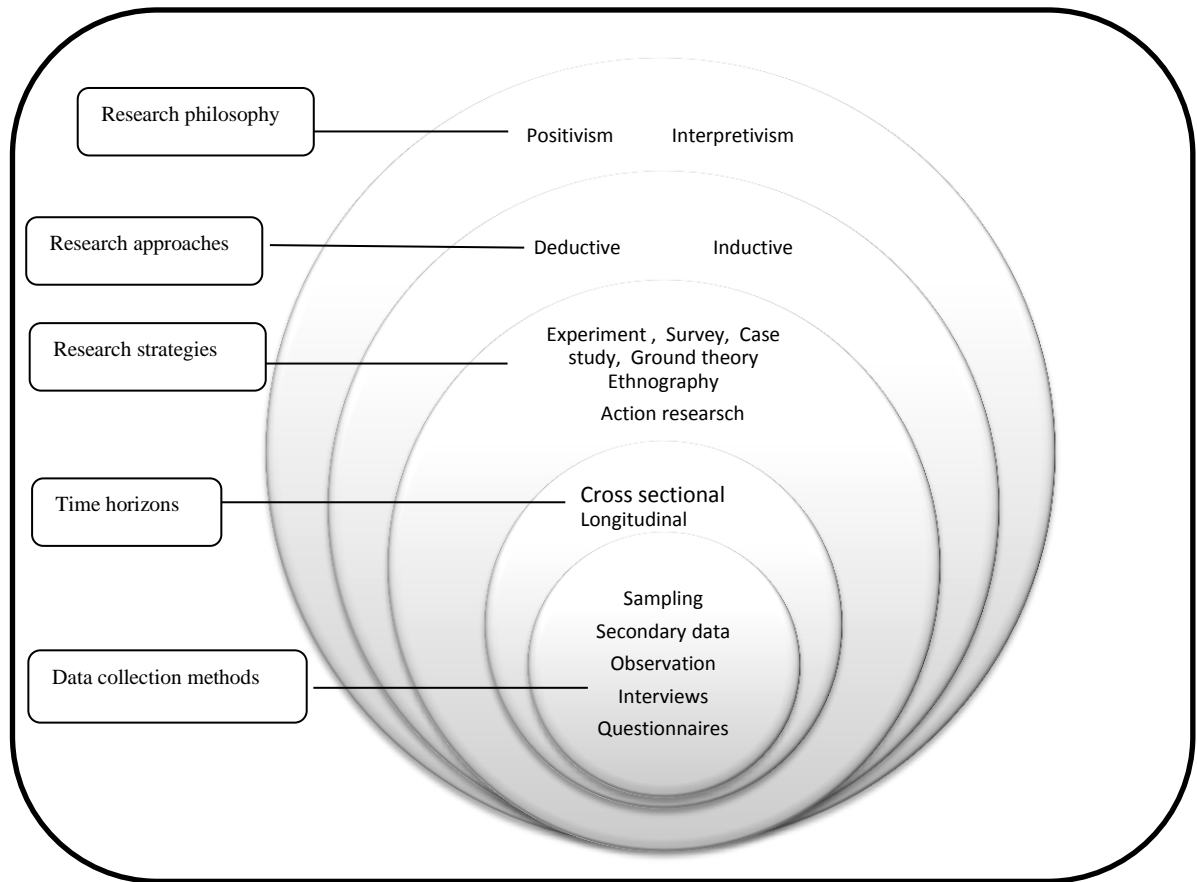
Figure 4-1: The research process "onion" (Sunders et al., 2000)

4.2 Research philosophy

Before getting into the details about the differences between the two dominant schools of thought in social science and consumer research, it is important to set the scene. First, this will be done by defining the two elements that these two approaches have in common. *Philosophical assumptions,* refers to accepted statements derived purely from opinions and views about reality, social beings and knowledge without the existence of any empirical evidence. *Methodology,* addresses how research questions can be answered through various data collection methods, research design, setting, subjects, analysis, and reporting the results (Hudson and Ozanne, 1988).

Second, the labels 'positivism' and 'interpretive' refer to the broad research approaches which differ in their philosophy and goals (Bryman, 2001; Hudson and Ozanne, 1988). Under the positivism umbrella comes an array of views: logical positivism, the received view, logical empiricism, modern empiricism, neopositivism and foundationalism. Similarly, subjectivism, phenomenology, symbolic interactionism and hermeneutics come under interpretivism (Hudson and Ozanne, 1988). In this research the labels positivism and interpretivism will be used to refer to the main body of the two research approaches.

4.2.1 Positivism

Positivism: is an epistemological view which promotes the usage of natural science methods in studying social reality (Bryman, 2001). Positivism theory was introduced in 1848 by the pioneer social French philosopher August Comte (Sarantakos, 1993). He believed that investigators of social science should not apply theological rules and metaphysical theories to gain an understanding of social problems. Alternatively, they should be seeking the explanation in society itself and in the structure of social relationships.

This can be achieved by applying scientific methods, which according to him, are the most appropriate tools of conducting social research (Sarantakos, 1993; Cohen et al., 2007).

4.2.2 Interpretivism

Interpretivism: is a term given to make a contrasting epistemology with positivism. This term concludes the opinions of writers who were criticizing the utilization of scientific models to the study of the social world. The common view of interpretivism researchers is their agreement on considering the foundation of social sciences, which are individuals' and their properties; different from those of the natural science. Therefore, according to those researchers, studying social science involves different logic and research procedures, which express the difference between people and the natural order (Bryman, 2001). Table 4-1 below displays the main difference between the two approaches.

Interpretivism	Positivism	
No direct access to real world.	Have direct access to real world.	*Ontology* *Natural of being/natural of the world.*
No single external reality.	Single external reality	*Reality*
Understood through perceived knowledge.	Possible to obtain hard secure objective knowledge.	*Epistemology* *Ground of knowledge / relation between reality and research*
Research focuses on the specific and concrete.	Research focuses on generalization and abstraction.	
Seeks to understand a	Governed by hypothesis	

specific context.	and stated theory.	
Understanding and interpretation. Experience what is being studied. Allow feelings and reason to govern action. Partially create what is studied, the meaning of the phenomena. Use of Pre-understanding is important. Distinction between facts and value judgment is less clear. Accept influence from both science and personal experience.	Descriptive and explanation. External observer Distinguishes between feeling and reason. Aims to discover the external reality, rather than creating the object of the study. Uses logical, consistence, verbal and rational pproaches. Distinguishes between science and personal experience.	*Methodology Focus of research.* *Role of researcher.*
Primarily non-quantitative	Predominantly formalized statistical and mathematical methods	*Techniques used by researcher*

Table 4-1: Broad definitions/explanation of positivism, interpretive, ontology, epistemology and methodology borrowed from (Carson et al., 2001).

Ontology: the philosophical meaning of ontology is what is believed that social reality is composed of (Blaikie, 2000). Both positivist and interpretive ontology hold assumptions about the nature of reality and social beings. Positivists take a realistic attitude and believe in the existence of a single reality which is completely independent from what individuals may perceive, and just as the physical world exists independently from individuals perceptions the social world also exists as an independent unchanged structure. Because reality is built up from the relationships between its constituent parts and as a result can be separated,   conducting an accurate and precise measurement and observation of reality is possible (Hudson and Ozanne, 1988).

On the other hand, interpretivists reject the notion of the existence of one real world and their argument is that reality is a state of mind and can be perceived; individuals generate theories and categories in order to make sense of their worlds; and because each individual is different from one another there is an existence of multiple realities and these realities tend to change (Hudson and Ozanne, 1988).

Epistemology: This constitutes of ideas of what can be considered knowledge and the conditions theses' ideas must meet to be accepted as knowledge (Blaikie, 2000). The positivist epistemological position is that individuals can obtain knowledge by applying both reason and empiricism. The results or the final product of this are observations or data. Also, individuals who are trained to acquire skills allowing them to follow observation procedures are capable of delivering objective data; enabling the accuracy of reality registration (Blaikie, 2000). Whereas, interpretivist epistemology is based on determining motives, meanings, reasons, and any other subjective experience that individuals acquire from their reality (Hudson and Ozanne, 1988; Sandberg, 2005).

4.3 Research approach

After identifying the research philosophy comes choosing between two research strategies, namely deductive or inductive, which are an extension of the research philosophy and in turn depend on research design and the data analysis.

4.3.1 Deductive

This approach implies the testing of concepts and theoretical constructs after these constructs have been developed. The way in which this test is carried out is through conducting empirical observations (Gill and Johnson, 1997). This means that the emphasis of this approach lies in the logic and the operationalization of the process, which considers testing the conceptual construct and the theory and as a result confirming the theory with empirical results (Gill and Johnson, 1997). The deductive method operates in three steps: concepts, rules and operationalization.

"Concepts are abstractions that allow us to select and order our impression of the world by enabling us to identify similarities and differences" (Carson et al., 2001 p. 12) and the researcher makes a decision in choosing the constructs which are able to represent the most significant aspects of the problem under investigation (Gill and Johnson, 1997). Because concepts are abstractions, it is not feasible to carry out an empirical investigation before interpreting it into measurable and testable indicators. This requires the construction of clear definitions and rules of what the researcher has planned to observe. This step leads to operationalizing the concept.

The authors Tull and Hawkins (1993) have provided a conceptual and operational definition of a concept. Conceptual definition "defines a concept in terms of other concepts" (Tull and Hawkins , 1993 p. 302), in which it states the core idea of a concept. While, "an operational definition describes the activities the researcher must complete in order to assign a value to the concept under consideration" (Tull and Hawkins, 1993 p. 302).

Thus, a conceptual definition is used to guide the development of an operational definition. Considering that concepts are abstracts and cannot be observed directly, operational definitions facilitate the translation of the unobserved variables or events to observable ones (Tull and Hawkins, 1993). Figure 4-2 below illustrates how concepts are operationalized.
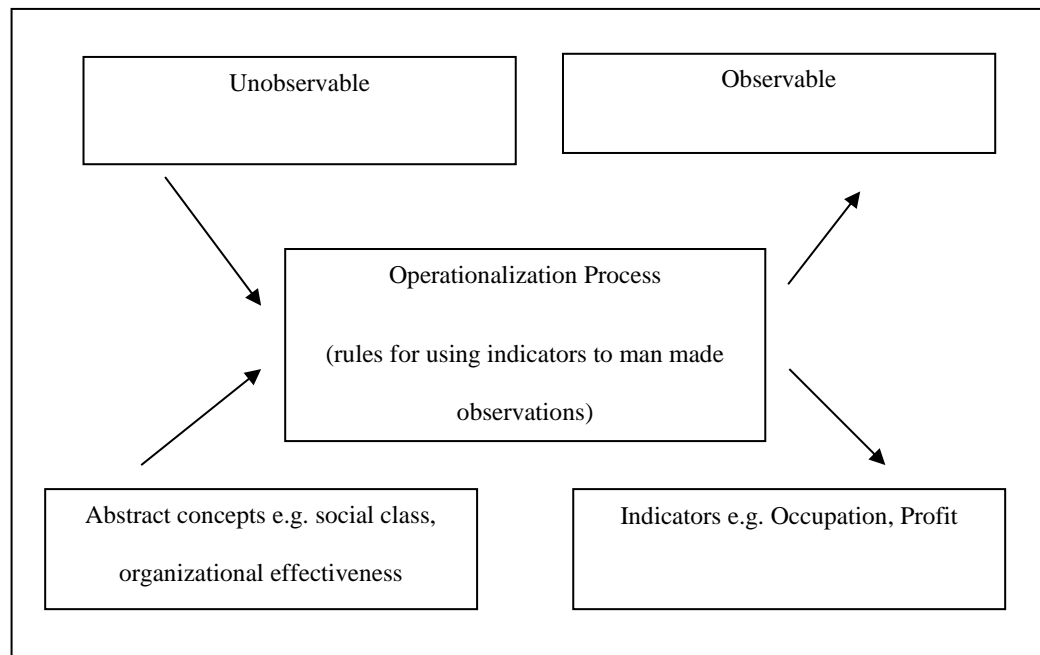
Figure 4-2: Demonstrates operationalization concepts borrowed from (Gill and Johnson, 1997)

4.3.2 Inductive

The logic behind the inductive approach is opposite to the deductive approach. In the inductive approach, data and results from the empirical investigation are used as a starting point to steer the research and guide the theory building. Moreover, the foundation of inductive methods relies on learning, which is achieved by reflecting on past experience and formulating abstract concepts, theories and generalizations that explain the past and predict future experience (Carson et al., 2001).

Furthermore, quantitative research differs from qualitative research, and that difference is deeply rooted in their epistemological and ontological foundations (Bryman, 2001). The displayed table 4-2 shows three different areas that distinguish between the two types of research.

	Quantitative	Qualitative
Principal orientation to the role of theory in relation to research.	Deductive; testing of theory	Inductive; generalization of theory
Epistemological orientation	Natural science model, in particular positivism	Interpretivism
Ontological orientation	Objectivism	Constructionism

Table 4-2: Fundamental differences between quantitative and qualitative research strategies, borrowed from Bryman (2001)

The focus of quantitative research is on the quantification of data collection and the analysis of that data. This means it requires a deductive approach to address the relationship between research and theory, and then emphasizes yield on testing theories. The positivist philosophical approach with its practice and norms of scientific models has been included (Bryman, 2001; Blaikie, 2000).

In contrast, to quantitative research, qualitative research focus is on wording instead of quantification in data collection and analysis. This type of research follows an inductive approach in investigating the relationship between research and theory, and emphasis is on the generalization of theories. The qualitative researcher's philosophical approach interpretivism stands in an opposite direction to the positivist approach and the norms and practices of scientific models; as they are interested in the ways people interpret their social world (Bryman, 2001; Carson et al., 2001). Finally, unlike quantitative

research the qualitative approach posits views of social reality as an unstable and constantly changing property of individual creation (Bryman, 2001; Hudson and Ozanne, 1988).

4.3.3 Reviewing the Purpose of the Study

The aim of this study is to fill the gap in the multichannel retail service literature, and to make a contribution by testing the moderating effect of customer characteristics on satisfaction with multichannel performance and behaviour intention. The means of achieving this aim is firstly by developing propositions and a conceptual model derived from the study theory. Secondly, empirically testing the conceptual model and the embodying constructs for the relationships between the customers satisfaction with the service retailer's multiple channels' performance on behaviour intention on one hand, and on the other hand the moderating effect of the customers different characteristics on these relationships. Research strategy will undertake a quantitative approach for the study design, data collection method and analysis techniques. The researcher's choice of employing this approach is based on:

(1) The previous discussion about the different philosophical schools of thoughts and research approaches. As noted by Gill and Johnson (1997) the inductive method, is considered a theory-building method. Theory is the outcome of the research. On the other hand, the deductive approach is a theory-testing method where conceptual and theoretical constructs are developed to steer the empirical investigation (Gill and Johnson, 1997). (2) By viewing the current study purpose we can identify that the most appropriate philosophical approach for this study is positivism and deductive method employing the quantitative research approach.

4.4 Research strategies

Some of the research strategies could be viewed as following a clear deductive tradition, others follow an inductive approach, whilst some can use both approaches. In the following table 4-3 we provide a summary of some of the research strategies in marketing and business studies before discussing in detail the chosen strategy.

Quantitative Strategies	
1- Survey (Robson, 2011; Bordens, and Abbott, 2002; Blaikie, 2000; Tull and Hawkins, 1993)	• Is the most commonly used quantitative method of data collection in social science, and they take two forms: self-administrated questionnaire and structured interview. • Surveys are capable of providing the researcher with various bits of information about the distribution of individuals' characteristics and the relationships which exist between these characteristics, as a result they are mostly used when the purpose of the research is descriptive. • Designing a survey requires a clearly defined researcher topic in order to keep the survey questions focused on the chosen attitude or behaviour. • The biggest concern of constructing a survey is measurement error.

2- Experiment (Robson, 2011; Bordens and Abbott, 2002; Saunders et al., 2009)	• Is a predominant method widely used in natural science and social science specially psychology. • The way this type is conducted, researchers introduce a change to the situation or the circumstances of the participants aiming to make change in their behaviour. • The strong point of experimental research is its ability to detect and describe causal relationships. • Its weakness is in order to use this method researcher should be able to manipulate the hypothesized causal variables.
3- Ethnography (Robson, 2011; Carson et al., 2001; Saunders et al., 2009).	• A qualitative research method rooted in the inductive approach, developed by anthropologists and sociologists. • Aim to describe and explain how groups of organization or community live interact and how they make sense of their world. • It provides closeness to reality, understanding and insight of the phenomena under investigation. • Conducting this kind of research is not easy as it requires that the researcher blind him/her-self in the field over a relatively long period of time, while trying to be partially observer.

4- Ground theory (Robson, 2011; Carson et al., 2001; Saunders et al., 2009).	• Research follows an interpretivism approach, and it suites a research concern about the complexities of social processes. • It is a theory building method which applies a combination of inductive and deductive approaches. • Its aim is to generate a theory after collecting data which in turn provides an extensive insight into the phenomena of interest. • Generalization is limited as it is not the prime interest of the researcher who chose to use ground theory.
5- Action research (Robson, 2011;Cohen et al., 2007; Saunders et al., 2009)	• Introduced by the work of Kurt Lewin's which was aiming to change the lives of the misfortune groups in different areas such as housing, employment, prejudice, socialization and training. • It promotes the application of changes within organisations, and emphasis on action. • It entails the involvement of the person undertaking the research in the action for change. • Core concepts of action research are improvement and involvement. • Improvement indicates the improvement of a particular practice and improving the understanding of the practitioners within that practice and by improving the environment where that practice take place.

| 6- *Case study*

(Robson, 2011; Cohen et al., 2007). | • Robson (1993) has defined case study as the 'development of detailed, intensive knowledge about a single "case", or a small number of related "cases" ' (Robson 1993, p.40).

• Case studies are used in many disciplines for example psychology, medicine, organizational behaviour, business studies, politics and marketing.

• Although some researchers considered qualitative methodologies the dominant approach in case studies (Cohen et al., 2007); Robson (2011) notes that according to the authors Gerring (2006) and Yin (2009) there is now an acceptance of the usage of both qualitative and quantitative methods of data collection in case studies.

• Case studies are capable of establishing cause and effect, and observing the effects in a real life context.

• They are suitable when the researcher has partial control over the events. However, they are prone to observer bias problems (Cohen et al., 2007). |

Table 4-3: A summary of the different research strategies

The viewed strategies in table 4-3 which as mentioned before are applied in marketing and in business research follow either a posivistist or an interpretivist approach (Carson et al., 2001). The focus of those who follow positivist approach (e.g., survey and experiments) is testing existing theory in a specified research context; the emphasis is on ensuring the objective precision in measuring the findings by means of statistical

significance (Carson et al., 2001). Moreover, positivist research tends to be highly structured, for instance constructing a survey instrument for the purpose of obtaining the required validity for the theory testing and measurement (Carson et al., 2001; Saunders et al., 2009; Gill and Johnson, 1997). Whereas the focus of the interpretivist approach is, to achieve a firm and clear meaning and understanding of how and why to employ an inductive logic to the phenomena under investigation throughout the various stages of the research. Furthermore, most of the methodologies of this approach, unlike posivistism, are semi-structured or completely unstructured (e.g., ethnographic) in collecting empirical data (Carson et al., 2001).

4.4.1 Surveys

Because of the connection between surveys and the deductive approach, and considering its popularity as a method of data collection in social science, business and management research, it seems to be the most appropriate method for the current study. Nevertheless, structuring a questionnaire requires certain skills to ensure that a set of questions which can be viewed as intelligible to the participants are provided, which at the same time can reduce bias and can produce data which can be analysed statistically (Gill and Johnson, 1997). All this can be ensured through considering four main issues, which are summarized in the following figure (4-3).
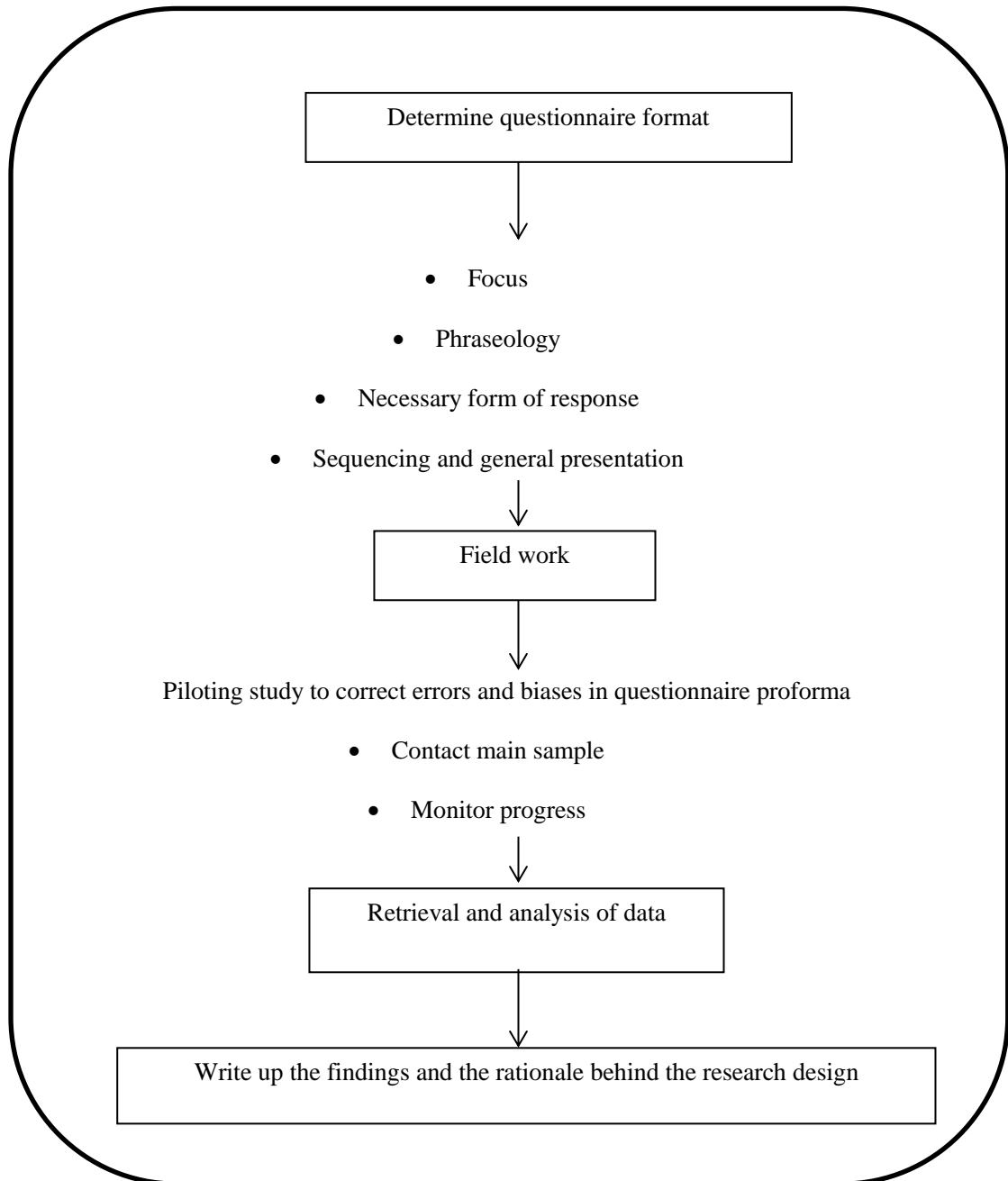
Figure 4-3: planning a survey – a summary adopted from (Gill and Johnson, 1997)

4.4.2 The measurement scale

Scales are quantitative techniques, and some of the reasons for using them include the following. Firstly, they provide good coverage for all the aspects of the variables understudy, Secondly, scales maintain high levels of reliability and accuracy. Thirdly, using scales helps in conducting comparisons between variables in sets of data and lastly, using these scales simplifies the process of data collection and analysis (Sarantakos, 1993). Scaling techniques are determined by the information required, the characteristics of the respondents and the chosen means of survey administration, i.e. whether it is going to be a scheduled (supervised) or a self-administrated survey (Tull and Hawkins, 1993). Multi-item scales are commonly used in measuring attitude, and they are constructed in a way that participants respond to a number of statements as indication of his/her agreement or disagreement with each statement. The semantic and Likert scales are an example of multi-item scale (Dillon et al., 1993).

4.4.2.1 Likert scale

Likert scale is named after its developer Rensis Likert, also known as a summated scale; is a widely employed scale for constructing attitude in the field of applied marketing, marketing, commercial marketing and behavioural research (Dawes, 2007; Hinkin, 1998; Tull and Hawkins, 1993). Investigators in social science studies are in favour of using the Likert scale compared to other scales, for example, equal appearing interval scale, which was developed by Thourstone. Researchers such as Hall, Rundquist and Sletto are among those who agreed on the simplicity of constructing the scale and employed it in their studies (Edwards and Kenny, 1967). For example, the Likert scale was utilized to construct Hall's survey about attitudes of employed and unemployed men; similarly, it was used to construct scale for Rundquist and Sletto Minnesota opinion survey (Edwards and Kenny, 1967).

However, researchers have long debated issues relating to Likert scale for example the optimal number of categories, whether categories should be presented with even or odd numbers and the implication this might have on introducing midpoint to the scale (Adelson and McCoach, 2010). While, some researchers argued that including a middle point to the scale permits participants to be discriminating in their responses which increase the scale reliability and make it more attractive to respondents. Others have opposed to introducing a midpoint to the scale arguing that it will reduce the reliability of the scale by making it less discriminating as more respondent choose the neutral category more often (Adelson and McCoach, 2010).

As a result, there is no specific number of categories agreed upon in the literature and researchers have used Likert scale with various number of categories (i.e., 5, 7, 9, 10 or 11 points) (Dawes, 2007; Malhotra and Peterson, 2006). Nevertheless, number of researchers such as (Malhotra and Person, 2006; Hair et al., 2003; Edwards and Kenny 1967) have indicated that the most commonly used number of categories in Likert scale are the five point and seven point for instance Hinkin (1998) has indicated that researchers are in favour of employing an odd number scale such as 5 or 7 over even numbers. In addition, Likert (1932) has initially used five points to construct the scale anchored by strongly disagree and strongly agree with neutral midpoint of neither agree nor disagree (Hinkin, 1998). Indeed, both simulation and empirical studies have reported that 5-point and 7-point Likert scales exhibit improvement in scale reliability and validity more than scale with few points or larger points. This was also confirmed by Dawes (2007) study conclusion that when the mean scores of (5 and 7) point scales are compared to 10 point Likert scale. 5-point and 7-point produces similar means when they are rescaled meanwhile 10-point Likert scale has produces lower mean score. Finally, Hair et al. (2003) have advised against using scale with categories less than five unless if the respondents are children then 3-point Likert scale can be used.

Some of the advantages of utilizing the Likert scale are: it is easy to construct and instructions of how to complete the survey are fairly easy for respondents to understand and the scale is suitable for mail and telephone surveys and interviews with children. One of its drawbacks is that it takes a long time to complete (Tull and Hawkins, 1993). For the present study, the Likert scale is used upon literature recommendation (Fishbein and Ajzen, 1975) as a measure for beliefs and attitudes (Karjaluoto et al., 2002). Given that, the focus of the current study is to test the characteristics of the multichannel customers and the influence these characteristics have on their attitude towards the channels performance as well as their behaviour intention. In addition to the pervious discussion the measures used in the current study are established measures borrowed from the relative literature which utilized 5-point Likert scale. Since, scales rating from 1 to 5 is commonly used and the respondent usually chooses if they strongly agree, agree, undecided, disagree or strongly disagree with each question or statement of a survey. Accordingly for the current research a 5-point Likert scale was found appropriate in keeping up with previous research. Table 4-4 below displays items used to construct the study questionnaire and the resources borrowed from.

Source	Scale items	
(Van Birgelen et al., 2006; Zeithaml et al. 1996)	**Behavioural intention (n=6)** 1- I consider my bank to be my first choice for all financial services that I need. 2- If I want to open a saving account or to get a loan in the future, I probably will do it at my bank. 3- In about five years, I expect that I will still consider my bank to be the most important bank 4- I recommend my bank to someone who seeks my advice. 5- I encourage friends and relatives to do business with my bank. 6- I say positive things about my bank to other people.	Five point completely disagree/ Completely agree
(Van Birgelen et al., 2006; Parasuraman et al., 1988).	**Satisfaction with employee performance (n=10)** 1- The extent to which the employee's make clear appointments 2- Speed at which the promised information is provided. 3- The competence of the service employees. 4- The time taken by the employees to serve me. 5- The attention the service employees pay to me. 6- The advice specially adjusted to my personal situation. 7- The extent to which the service employees show empathy. 8- The friendliness of the employees.	Five point completely dissatisfied/ completely satisfied

	9- The readiness of the employees to help me.	
	10-The politeness of the employee.	
	Online banking	
	How satisfied are you with your bank's internet banking performance?	
Moderators (Bove and Mitzifiris, 2007; Brown et al 2002; Mowen and Spears 1999).	**Extraversion (n=10):** 1- I am the life of the party. 2-* I don't talk a lot. 3- I feel comfortable around people. 4- *I keep in the background. 5- I start conversations. 6- *I have little to say. 7- I talk to a lot of different people at parties. 8- *I don't like to draw attention to myself. 9- I don't mind being the centre of attention. 10-*I am quiet around strangers. **Neuroticism (n=10):** 1- I get stress out easily. 2- *I am relaxed most of the time. 3- I worry about things. 4- I seldom feel blue. 5- I am easily disturbed.	Five- point very inaccurate/ very accurate

	6- I get upset easily.	
	7- I change my mood a lot.	
	8- I have frequent mood swing.	
	9- I get irritated easily.	
	10- I often feel blue.	
	Openness to experience (n=6):	
	1- I frequently feel highly creative.	
	2- I am imaginative.	
	3- I appreciate art.	
	4- I enjoy beauty more than others.	
	5- I find novel solutions.	
	6-I am more original than others.	
(Lilijander et al., 2006)	**Technology readiness (n=12):** 1- Technology gives me more control over their daily lives**.** 2- Technology gives me more freedom of mobility. 3- Products and services that use the newest technologies are much more convenient to me. 4- In general, I am among the first in my circle	Five- point completely disagree/completely agrees.

	of friends to acquire new technology when it appears.	
	5- I can usually figure out new high-tech products and services without help from others.	
	6- Other people come to me for advice on new technologies.	
	7- *Technology support lines are not helpful because they don't explain things in terms that I understand.	
	8- *When I get technical support from a provider of a high-tech product or service, I sometimes feel as if I have being taken advantage of by someone who knows more than me do.	
	9- *It is embarrassing when I have trouble with high tech gadget while people are watching.	
	10- *I do not feel confident doing business with a place that can only be reached online.	
	11- *I do not consider it safe giving out a credit card number over a computer.	
	12- *Any business transaction I do electronically should be confirmed later with something in writing.	

Table 4-4: Study questionnaire

4.4.3 Constructs Operational definition

As displayed in the above table (4-4) all study constructs were measured using multi-item scales apart from satisfaction with the online channel's performance which was measured on a single item scale. Customers who took part in this study were asked to specify on the Likert scale their level of satisfaction with employee and online (i.e., completely dissatisfied = 1 and completely dissatisfied = 5), behavioural intention (strongly disagree = 1 and strongly agree = 5), while for personality traits participants were asked to indicate if statement is accurate or not accurate (very inaccurate = 1 and very accurate = 5).

4.4.3.1 Satisfaction with employee and online channel performance

Satisfaction with employee scale items came from SERVQUAL a survey instrument introduced by Parasuraman et al. (1988) and it focuses on customers' perceptions about service. This is so that retailers and service providers gain insight and better understanding of their customers' perceptions and expectations of the service, and make the necessary improvements accordingly. To construct SERVQUAL, 97 items were generated to measure 10 different dimensions. Then a series of scale purifying procedures were followed leading to the emergence of a 22 multi-item scale with five dimensions (tangibles, reliability, responsiveness, assurance and empathy). The tangible dimension covers items (e.g., physical facilities), reliability is related to the employees' ability to perform the required service accurately, responsiveness represents employee willingness to offer help to the customers, assurance and empathy dimensions covers items related to thing such as employee's courtesy and caring respectively (Parasuraman et al., 1988).

In general in the literature satisfaction with service is conceptualized and operationalized as satisfaction with service quality. Therefore, service quality related items are used to measure satisfaction with employee channel performance. For the

present study a 10 item scale was adopted from (Van Birgelen et al., 2006; Parasuraman et al., 1988) to operationalize satisfaction with employee channel performance.

Although multiple-item scale development procedures are considered the dominant paradigm in the field of marketing research as advocated by Churchill (1979), yet this has been challenged by several authors such as (Rossiter, 2002; Drolet and Morrison, 2001) who argue that in some cases constructing multi-item scales is not necessary and it can simply substituted by a single item scale (Alexandrov., 2010). Furthermore, these researchers' have supported their argument by empirically demonstrating that single item scales poses acceptable psychometric properties and as a result can be used as an alternative for multiple-item measures. Thus, *Wanous, Reichers and Hudy (1997)* stated "the use of single-item measures should not be considered fatal flaws in the review process. Rather, their appropriateness for a particular piece of research should be evaluated" *(*Fuchs and Diamantopoulos, 2009 p.196).

Others have highlighted the benefits of employing single item scale that it is short, flexible and easy to administer; unlike multiple-item scale which tend to be long and are more likely to lose respondents focus leading to low response rate and more missing values (Fuchs and Diamantopoulos, 2009). In the same vein some researchers' in the field of psychology have suggested the usage of single item scales as one way of making psychological measures more efficient (Fuchs and Diamantopoulos, 2009). Indeed marketing constructs such as purchase intention, overall satisfaction with offline and online channels, and satisfaction with online channel performance are examples of single item scales (Anexandrov, 2010; Van Birgelen et al., 2006; Shankar et al., 2003). Accordingly, single item scale were used to operationalize customer satisfaction with online channel borrowed from Van Birgelen et al.(2003) study, and customers were

asked to indicate on a five point Likert scale how satisfied they are with the performance of their banks online channel.

4.4.3.2 Behavioural intention

The behavioural intention measure was used to assess if a customers across four companies will stay in a relationship with the firm or whether they will move to another. The measure is developed by Zeithaml et al. (1996) to capture various behavioural intentions which have not been covered previously in literature, for example staying loyal to firm.

Accordingly factor analysis was performed on a set of 13 items used to conceptualize the construct leading to a five factor solution and the emergence of five dimensions, which are loyalty, paying more, switching behaviour, response to external problems and internal response to problems. Of the five dimensions loyalty has yielded Cronbach alpha ranging between (α =.93 and α =.94) across the four companies. Also, 3 items were used to measure behavioural intention in the Van Birgelen et al. (2006) study. In the present study, behavioural intention was operationalized as a 6 item scale adopted from Zeithaml et al. (1996) and Van Birgelen et al. (2006) these items were selected based on their relevance to the current study multichannel context.

4.4.3.3 Extraversion and Neuroticism

Extraversion and neuroticism are constructed from 10 items which are borrowed from Bove and Mitzifiris (2007). In their study these two scales together with Conscientiousness and Agreeableness were taken from the short version of the original NEO-PI (Neuroticism, extraversion and openness to experience–personality index) developed by McCrae and Costa (1987). This version of NEO-PI personality scale is available on the internet and can be accessed through the international personality item pool (IPIP). In relation to the reliability of the shortened version of personality scales,

Langford (2003) has provided support for using shortened version of scales to measure personality traits (Bove and Mitzifiris, 2007; Langford, 2003).

Likewise, short scales were used to measure personality traits in other studies (i.e., Picazo-Vela et al., 2010; Bosnjak et al., 2007). The internal consistency of extraversion and neuroticism reported in Bove and Mitizifiris's (2007) study were (α =.73, α =.74) respectively. Furthermore, Bove and Mitzifiris (2007) have suggested that in situations where survey delivery time is short and when it is more likely that respondent fatigue will occur, and when other measures are included in the questionnaire a short version of NEO-PI is considered more appropriate, which is the case in this study.

4.4.3.4 Openness to experience

Openness to experience is the factor where the five-factor model of personality trait captures individuals' degree of originality and creativity (Brown et al., 2002). Openness to experience was taken from a scale developed by Goldberg (1993) to measure personality traits (the Big Five) and which was later refined by Saucier (1994) (Brown et al., 2002; Mowen and Spears, 1999). The openness to experience scale yielded a coefficient alpha of α=.83 (Brown et al., 2002) and (α=.82) in a study examining compulsive buying behaviour in sample of college students by Mowen and Spears (1999).

4.4.3.5 Technology Readiness

Technology readiness is a construct developed by Parasuramn (2000) to measure people's readiness to use technology-based delivery channels, as well as products and services. Parasuramn (2000) has constructed the technology readiness index (TRI). The 36 item construct is comprised of four dimensions: optimism, innovativeness, discomfort and insecurity. Though, the two former dimensions (optimism and innovativeness) represents the drivers of peoples positive feelings toward technology,

discomfort and insecurity are inhibitors which represent people's negative attitudes towards the usage of technology (Westjohn et al., 2007; Parasuramn, 2000). For the current study, a 12 item scale was adopted from Liljander et al. (2006) where each dimension is represented by 3 items as an attempt to avoid participant fatigue especially with the presence of other multi-item scales in the questionnaire.

4.5 Research design

Research design refers to the plan or the framework, which is used to guide the data collection and analysis procedures (Churchill, 1999). Research design can be divided into two types: exploratory design or conclusive design (Malhotra and Birks, 2003). The table 4-5 below highlights the differences between the two design types.

	Exploratory	*Conclusive*
Objectives	To provide insights and understanding of the nature of marketing phenomena. To understand.	To test specific hypotheses and examine relationships. To measure.
Characteristics	Information needed may be loosely defined. Research process is flexible, unstructured and may evolve. Samples are small. Data analysis can be qualitative or quantitative.	Information needed is clearly defied. Research process is formal and structured. Samples are large and aim to be representative. Data analysis is quantitative.
Findings/results	Can be used in their own right. May feed into conclusive research. May illuminate specific conclusive findings.	Can be used in their own right. May feed into exploratory research. May set a context to exploratory findings.

Methods	Expert surveys	Surveys
	Pilot surveys	Secondary data
	Secondary data	Databases
	Qualitative interviews	Panels
	Unstructured observations	Structured observation
	Quantitative exploratory multivariate methods	Experiments

Table 4-5: Difference between exploratory and conclusive research adopted from (Malhotra and Birks, 2003).

The purpose of this study is to test the proposed hypothesis and examine the embodying relationships; and also to conducting data collection by means of distributing questionnaires. This is followed by performing a suitable analysis of the gathered data to generate the study findings. Thus, this study falls under the conclusive research category. The reason behind the researcher's choice is that descriptive research design demands specification of the methods employed to identify the source of the required information and what method will be used to collect data from that source (Malhotra and Birks, 2003). It is also utilized when the research is interested in describing the characteristics of a particular group, estimating a specific behaviour of a group of individuals in a population, and making a precise prediction (Churchill, 1999; Jolliffe, 1986).

This means it is a pre-planned and structured research (Malhotra and Birks, 2003), which is the case in this study. Also, as Churchill (1999) noted, descriptive research embodies various objectives and viewing it as a fact gathering mission only is not completely accurate. Facts alone do not lead anywhere, and what makes a fact worthy is the theory and the framework behind those facts which contribute to providing a

meaningful explanation and understanding of the problem, and, as a result, a possible solution (Churchill, 1999).

A large proportion of marketing studies can be described as descriptive research. Market studies often describe the market size, consumer profiles and their buying power; and in sales analysis studies, describing the product line, the type and the size of the account. Finally, product usage studies describe consumer usage or consumption patterns (Malhotra and Birks, 2003; Churchill, 1999). In addition, descriptive research is further classified into cross-sectional and longitudinal research, in the following paragraphs is a summary of each type.

4.6 Time horizons

Determining the time for data collection is an important element of any research, and some researchers consider time the essential characteristic which defines all research designs (Blaikie, 2000). A research study can be a short-term investigation, extending over weeks or months, or a long-term investigation which lasts for a number of years (Cohen et al., 2007). Beside from the time frame aspect, what also determines the research design is the study objectives and the type of questions that a researcher seeks to answer by employing the research design. As some objectives and questions can be achieved by conducting a cross-sectional study, others may require longitudinal design (Blaikie, 2000).

4.6.1 Longitudinal design

The main concern of this design lies with collecting data by different means such as experimentation, observation or by a questionnaire survey conducted over a time, in an attempt to describe and explain the changes in the participants or objects over the research period (Baker, 1991). The most important question which needs to be

addressed in a longitudinal study is: 'have there been any changes over a period of time?' (Bouma et al., 1995).

Furthermore, the strength of this research design came from its capability of studying change and development. Studying individuals or events over time allows the researcher to implement some sort of control over the variables under investigation, given that the research process does not affect them, as mentioned by Adam and Schuaneveldt (1991) (Saunders et al., 2009). In addition, the demand for applying these studies is derived from its ability to establish causality and make inferences (Cohen et al., 2007).

Longitudinal surveys are a rich source of data and the advantage of employing it is that it provides the researcher with insight and understanding of the process, where change occurs and analysis of the dynamic processes. An example of this might be the development in personnel management and industrial relations over a period of time (Saunders et al., 2009; Baker, 1991).

4.6.2 Cross-sectional design

Cross-sectional studies are designed to produce a snap shot of the different dimensions of a population such as: demographics, individuals' attitudes, values, beliefs and social interaction, at a particular point in time (Cohen et al., 2007; Blaikie, 2000). Survey is the research strategy which is often used with cross-sectional studies; however, cross-sectional studies may employ qualitative methods and, as such, a case study could be based on interviews carried out over a short period of time (Saunders et al., 2009).

Utilizing cross-sectional studies is common in marketing research and the way in which these studies collect data is by employing a survey strategy and drawing a sample of the elements from the population of interest (Robson, 2011; Churchill, 1999). In terms of data analysis, this design employs structural equation modelling. Examples, of this application would be Rice et al.'s (1997) study which investigates the predictors of

emotional well-being. In this study, a multi group analysis was conducted to make a comparison between African-American and Caucasian, male and female adolescents (MacCallum and Austin, 2000). Furthermore, Judge and Locke (1993) have estimated the effects of dysfunctional thought processes on subjective well-being by employing reports from individuals and significant others (MacCallum and Austin, 2000).

One distinguishable point which features most of the models used in cross-sectional designs is related to the need to specify the directional influence between variables (MacCallum and Austin, 2000). In conclusion, the main difference between cross-sectional and longitudinal research, is that the first one is related to investigating one or more variables as they are in one particular point of time; whereas, the second involves testing or measuring the same variables on different occasions. Moreover, taking into consideration the fact that the current research PHD has a time limit constraint for its completion and also considering the requirement of applying structural equation modelling in the data analysis, this research is of a cross-sectional nature.

4.7 Research setting

In today's market the way in which firms and service providers interact with their customers has changed. Changes are driven by the rapid development in communication and information technologies, especially the internet (Sousa and Voss, 2006). In addition, the financial sector in particular has a long tradition in developing and employing self-service technologies as additional channels (Pikkarainen et al., 2004). In other words, banks have been implementing multichannel strategies where traditional (i.e., branches and employee) and technology-based (e.g., telephone, ATM's and internet banking) channels are utilized for a long period of time. Consequently, financial services users who employ various channels to contact their banks and obtain the

desirable service are by definition multichannel customers (Kumar and Venkatesan, 2005).

However, an extensive part of the banking literature has focused on factors affecting customers' adoption of online banking in various contexts, such as in Europe (Pikkarainen et al., 2004), USA (Kolodinsky et al., 2004), Australia (Lichtenstein and Williamson, 2006), Asia (Suh and Han, 2003), and in Saudi Arabia (Al-Somali et al., 2009). In contrast, banking literature has paid less attention to investigating multichannel customers' perceptions and attitudes, with the notable exceptions of Van Birgelen et al. (2006) and Cortiñas et al. (2010).

The current research has been carried out in the Kingdom of Saudi Arabia, and to the researcher's knowledge this is the first multichannel study which is conducted in the Middle East generally and in Saudi Arabia in particular. To test the study model, questionnaires were distributed among banks' customers. Currently there are eleven operating banks and these banks reported having 1201 operating branches around the Kingdom by the end of the first half of 2002 (Al-Jasser, 2002).

The decision to choose Saudi multichannel bank services as the study setting is based mainly on the following factors. Firstly, the banking industry, compared to the other types of industries in Kingdom of Saudi Arabia, is the leading in employing multichannel strategies as it provides both traditional and technology-based channels such as branches, ATMs, telephone banking and recently online banking. Secondly, the Government's efforts to enhance the technological infrastructure of the country would enable banks to improve their relatively new online channel. Thirdly, to ensure availability of participants this, in turn, increases the response rate.

4.8 Data collection

4.8.1 Sample survey

The means of collecting data in cross-sectional research is by sample survey, which refers to drawing a sample of participants which are representative of the bigger and larger population. If however, the survey was distributed to the whole population then it would be a census (Tull and Hawkins, 1993; Dillon et al., 1993). A key factor in sample surveys is how the representativeness is achieved and assessed (Robson, 2011). The characteristics of the representative samples match those of the population of interest (Bordens and Abbott, 2005).

Some of the advantages of applying sample survey in comparison with census are as follows. Sample surveys are less expensive than conducting a complete (enumeration/census) survey of the whole population as a basis of making inference and estimation (Foreman, 1991). In addition, carrying out a census is more likely to be conducted by government (e.g., Office of Population Censuses and Surveys) than private researchers, also private researchers experience higher non-respondent rates than government organizations (Jolliffe, 1986).

Obtaining results from the sample survey takes less time. The small size of the sample survey makes it possible to use a wide range of methods, for instance, measurements, questionnaires or observations (Foreman, 1991). Sample surveys are used to collect primary data, that is, the data created by the researcher in order to address the research problem (Malhotra and Birks, 2003). The types of this kind of data are demographic/socioeconomic characteristics, psychological/life-style characteristics and attitude/opinion.

4.8.2 Sampling

Sampling theory, which is being applied presently, is a development of the classical sampling theory, and it has the following features: (1) it is used to explain sampling a finite population (that is the size and features of existing population with limited numbers). (2) It is not limited to sampling equal probabilities only but also includes various sample collection and estimation methods. (3) Sampling theory requires an efficient sample design. That includes choosing the means of sample selection and estimation, which provides accurate findings at a minimum cost (Foreman, 1991). In order to understand how samples are selected, it is necessary to learn first about some sampling concepts:

4.8.2.1 Define the target population

The first step in establishing a sampling design is defining the target population. "Target population is the collection of elements or objects that possess the information sought by the researcher and about which inferences are to be made" (Malhotra and Birks, 2003 p. 358). A properly designed targeted population requires having clear definitions of the terms: elements, sampling units and extent time. Elements refer to the objects, or in this case, a survey of the participants that the researcher is interested in collecting data from. A sampling unit is composed of the elements or respondents in this case which could be available at any stage of the sampling process (Malhotra and Birks, 2003; Kinnear and Taylor, 1996).

As a result, the targeted population for the current study is defined as all the males and females customers who are account holders in any Saudi bank and used both employee and online channels in the city of Jeddah in the year 2011. Since this study is going to use snowball sampling method this involves identifying the initial respondents. This was carried out by the researcher asking potential participants if they have conducted any online banking activities as a result questionnaires were handed in to only those

who are familiar with online banking channel and they were chosen to construct the initial group of respondents who were asked to help the researcher in identifying others who belong to the targeted population.

4.8.2.2 Determining the sampling frame

A sampling frame is considered an illustration of the participants of the targeted sample population. It could be a list or a set of directions which the researcher uses to identify the desirable or the targeted population. Telephone books, customer databases and directories listing firms in industry as some examples of a sampling frame. In cases where such lists are not available then the researcher should have some sort of directions of how to identify the targeted population (Malhotra and Birks, 2003; Kinnear and Taylor, 1996). Chisnall (2001) has highlighted that in most developed countries it is possible to obtain various sampling frames which covers a wide range of population characteristics. However, that is not the case in some of the overseas countries as it is difficult to obtain a reliable sampling frame.

4.8.2.3 Pilot study

Conducting a pilot study, prior to carrying out distribution of a designed questionnaire to the chosen sample population, helps the researcher to estimate the time and costs involved in the study (Chisnall, 2001). In addition, it helps the researcher to make any required adjustments and modifications before putting the main questionnaire into operation as it allows checking carefully the length of the questionnaire as it is presumed to affect the quality of participant's response. Furthermore, some of the advantages of conducting a pilot study before starting the field work are as follows:

- It helps to specify the research hypotheses and provide suggestions of relationships or approaches, which were not considered before.

- It is a way of improving the instrument format and correcting mistakes in questions, if any and procedures of data collection.

- It's a means of checking the reliability and validity of the instrument and allows the researcher to try out different designs, data analysis techniques and alternative measurements.

- It is a means of assessing the coding procedure in processing and verifying the documentation. Finally, it provides an estimation of the response rate (Johanson and Brooks, 2009; Grosof and Sardy 1985).

Moreover, a pilot study should be undertaken in conditions similar to those of the survey sample. For instance, the socio-economic background of the pilot study participants should be the same as the survey sample (Chisnall, 2001). A pilot study before the main survey is an important step for a researcher who is aiming to achieve a high response rate from his or her designed questionnaire because it helps in producing a clear, specific and understandable question and items which are capable of been answered by the respondents and free of bias (Chisnall, 2001).

The reported appropriate sample size for pilot study, which is used in survey studies or scale development, in social science literature is considerably small. An example, sample size of 10 to 30 responses was suggested by Isaac and Michael (1995) and argued as having many virtual advantages; for instance, the ability to test the hypothesis, simplicity and ease of calculating (Johanson and Brooks, 2009). Moreover, Van Belle (2002) recommended the usage of 12 responses when constructing confidence interval (Johanson and Brooks, 2009).

Consequently, a pilot study with a sample size of 52 was collected from Saudi students in the University of Leeds and the University of Sheffield, who are account holders of Saudi banks prior to data collection from Saudi bank customers in Saudi Arabia. After,

receiving the questionnaire and making the necessary adjustments the questionnaire was ready to be translated in preparation to distribute among the main study sample.

4.8.2.4 Determining the sample size

An important aspect that should be taken into consideration when determining the sample size is the analysis technique employed in the study and since this study is going to use structural equation modelling, as we will see later, it is necessary to determine what is conceived as an adequate sample size for this technique. Researchers had different views on this issue. For example, Schumacker and Lomx (2004) have found, in the published studies they have examined, that the most common used sample size range is between 250 and 500. As for what can be considered the minimum size to construct structural models' researchers Anderson and Gerbing (1988) have suggested a sample size range from 100 to 150 (Schumacker and Lomx, 2004). However, for this study the necessary minimum sample size was achieved by following Barclay et al. (1995) rule of thumb for PLS-SEM, which indicates that sample size has to be 10 times larger than the number of indicators for the most predicted construct on the measurement level as well as on the structural level (i.e., the number of structural paths directed to latent construct) (Chin, 2010; Hair et al., 2012). In addition, the current study is employing non-probability sampling method, namely snowball sampling, as result sample size consists of 500 questionnaires were chosen which is in line with previous research (i.e., Mahdi, 2012). Consequently the retained number of questionnaires have surpassed the number of questionnaires retained by studies employing PLS-SEM for data analysis and involved investigating some of the current study constructs in different research settings (Yoon and Steege, 2012; Picazo-Vela et al., 2010; Bove and Mitzifiris, 2007).

4.8.2.5 Probability and Non-probability sampling

Probability sampling: "A sampling procedure in which each element of the population has a fixed probabilistic chance of being selected for the sample" (Malhotra and Peterson, 2006 p.328). This means that each element of the targeted population, which is selected at random, has known although not equal chances of being selected for the sample. The power of this method lies in its ability to estimate the targeted population characteristics consequently findings can be generalized, however, employing this type of sampling method involves obtaining a large sample size for it to be representative of the targeted population (Hair et al., 2003). Some of the commonly employed probability sampling methods are: simple random sampling, stratified random sampling (which is popular when using telephone interviews) and cluster sampling where, unlike the above mentioned two types where the sampling units are selected individually or separately, in this design the sampling units are selected as a group (Dillon et al., 1993).

Non-probability sampling: "Sampling technique that does not use chance selection procedures but instead, relies on the personal judgement of the researcher" (Malhotra and Peterson, 2006, p.327). In other words, the researcher makes the decision of including or excluding elements of the targeted population therefore compared to probability sampling there is no way to determine what the chances of choosing a specific element for the sample are, resulting in not being able to make a statistical estimation and inference to the population (Dillon et al., 1993). Some examples of this approach of sampling are convenience sampling, judgmental sampling and quota sampling.

As Chisnall (2001) mentioned, it was difficult for the researcher to obtain a sampling frame list for the targeted population in a developing country such as Kingdom of Saudi Arabia. As result, non-probability sampling method was used, in particular, snowball sampling to ensure collecting data from male and female participants with the required

characteristics. Similarly, non-probability sampling methods were employed by previous research conducted in Saudi Arabia, for instance, convenience sampling used by Alsomali et al (2009) and snowball sampling method used by (Mahdi, 2012) and (Sohail and Shaikh, 2007). Another common factor between this study and the above-mentioned studies, it is conducted in banking environment and collecting primary data from bank customers opposed challenging to the researcher. That is because the difficulty of gaining access to collect data from customers of financial institution such as banks (Saunders et al., 2009).

Accordingly, this research has employed snowball sampling method of data collection. Snowball sampling is a type of judgment sample, and it depends on the researcher ability and judgment in allocating elements from the population which are most likely to possess the required characteristics. Once the initial participants are identified then they are used as formative and in return, they allocate others with the desired characteristics (Churchill, 1999).

At first, the researcher has distributed the questionnaire among 35 individuals of her relatives, friends and colleagues to establish the first group of respondents then requested from this group to identify others with similar characteristics (i.e., males and females who are account holders of one of the Saudi banks and used both channels traditional and online banking) and distribute the questionnaires to them. After, a decision was made on which type of sampling methods to use, the next step would be to choose how the questionnaire would be administrated; i.e. whether it is going to be supervised or self-administrated. The difference between these two modes and the researcher's choice of which to use depending on some criteria such as cost, time and response rate is discussed in the next section.

4.8.2.6 Cover letter

It is always desirable to attach a cover letter to the questionnaire. The purpose of adding a cover letter to the questionnaire is to introduce the study and the research institution to the participants. In an attempt to eliminate any mistrust or doubts that a the participant may have, cover letters also aim to encourage participants to take part in the study by answering the questions (Cohen et al., 2007; Sarantakos, 1993). Providing an explanation of the way in which the researcher is intending to ensure the anonymity of the respondent and the confidentiality of the data collection process are important ethical issues that need to be addressed before collecting the data (Bordens and Abbott, 2005). Confidentiality means that the researcher will use and report the results on an aggregate level, and there will not be disclosure of any individual data. What maintaining the anonymity of the respondent means is that the researcher will guarantee their will not be an association between the participant's name and his/her answers. Good practice dictates that the researcher fulfils these promises (Bordens and Abbott, 2005).

Researchers have recognized the questionnaire cover letter as an important factor which influences research response rates. That is the way the letter is structured and written (e.g., Dear Sir; Dear Sir/Madam), the style, type of paper used and the letter heading format has been considered by some writers to be significant in increasing the chances of a respondent completing the questionnaire (Sarantakos, 1993). In the current study, a cover letter bearing The University of Leeds logo, the importance of the study, the time needed to complete the questionnaire and the researcher's and study supervisor's addresses were attached to the survey.

4.8.2.7 Translation

One of the challenges facing researchers in international research is securing a comparative copy of the questionnaire in the respondents' language (Tull and Hawkins, 1993). Back translation is a means of overcoming this obstacle. It is a well-known method for translating questionnaires used by marketing companies and academics. Similarly, it is used for educational testing and psychological measures (Craig and Douglas, 2000). In this approach the questionnaire is constructed in one language then it is translated into the targeted participants' language by someone who is bilingual who is a native speaker of the second language or the intended participants' language. Then the translated copy of the questionnaire is translated back to the original language by another person who is bilingual and who is a native speaker of the questionnaire's original language.

In the current study, the questionnaire was constructed in English language, and the back translation was carried out by a professional translation office in the city of Jeddah. It was translated into Arabic then back into English again. The two English and Arabic copies were carefully checked for any discrepancies by the researcher before the final Arabic version of the questionnaire was distributed to the study sample.

4.8.3 Questionnaire administration

Questionnaire design can be distinguished into two categories depending on how it will been administered: self-administered and interviewer administered questionnaires. There are three types of questionnaires in the self-administered category: online questionnaires, postal, and delivery and collection questionnaires; and two under interviewer administered types, which are: telephone and structured interviews (Saunders et al., 2009). Table 4-6 below illustrates the advantages and disadvantages of each method.

Questionnaire	Advantages	Disadvantages
1-Telephone (Cohen et al., 2007).	• One of its advantages is the low cost in time and travel as it allows the researcher to get in contact with relatively a large number of people. • It is easy to maintain the required sample size, as it allows replacing the unwilling or unable respondents by contacting others.	• The person who answered the phone might not be suitable to take the call. • Unmarried young and high occupation groups use answer machines. • There is the possibility that the respondent might end the call if the questions become sensitive.

2- Interview (Robson, 2011; Cohen et al., 2007).	• Presence of the interviewer helps in providing some clarifications to the respondents if needed. • Allows the researcher to control the environment where the interview is taking place in terms of privacy and distraction. • The response rate is higher in face-to-face interviews.	• Some of the factors that might influence the way in which survey is conducted are the characteristics of the interviewee such as sex, race, ethnicity, social status. • Respondents might be unwilling to provide some information they regard to be sensitive or if anonymity is not ensured. • Interviewers tend to be costly as they consume time of both the researcher and the interviewee.
3-Postal survey (Robson, 2011; Cohen et al., 2007; Ibeh, Brock and Zhou, 2004).	• It facilitates reaching a large number of participants. • Data collection is conducted at a low cost and fairly quickly. • The confidentiality of the respondent is ensured. • It allows the participant to complete the questionnaire at their own convenient time. • There is no risk of interviewer bias.	• Low response rate e.g., 20-30 • Questionnaires might be misunderstood by the respondents if they fail to carefully follow the instructions accompanying with the questionnaires.
4-Internet survey (Robson, 2011; Cohen et al., 2007; Taylor,	• Costs are reduced with online questionnaires. • Time spent in data collection is short. • Online surveys can be adjusted to become more feasible for populations	• In order to avoid the non-response high rates, online surveys need to be short. • Researcher does not have control of the order that the respondent

2000).	with particular disabilities. • Popular with non-probability sampling volunteer or convenience sampling.	chooses to answer the questionnaire, although this can be achieved by technical means yet is not recommended as it may lead to non-completion. • It is difficult to obtain a reliable population list for the sampling frames. • Factors such as screen size, operating system and loading speed are different from one respondent's computer to another which might affect the appearance of the questionnaire. • The danger of response bias appearing is high with the individuals of low education and low computer experience.
5-Drop and collect (Saunders et al., 2009; Ibeh, Brock and Zhou, 2004; Baker 1991).	• It is cheap, reliable and fast. • High response rate,between 70 -98% of the questionnaires being completed by the agreed time can be achieved. • Participants complete questionnaires in their chosen time allowing distributing long and more detailed questionnaires than telephone or interview questionnaires.	• Tendency toward literate bias. • Minimizes the risk of having an incomplete questionnaire yet there is no way to ensure not having incomplete ones.

Table 4-6: Summary of the advantages and disadvantages of each questionnaire method.

4.8.3.1 Drop and collect survey

Drop and collect survey is also known as drop-off delivery, self-completion questionnaire and hand delivery and collection. According to Brown (1987) this method of data collection has received little attention (Ibeh, Brock and Zhou, 2004; Brown, 1987). The way in which this method of data collection functions is the researcher or trained field assistant delivers the survey in person directly to the intended group, or indirectly through a secretary (informer), and comes back to collect it in an agreed time (Baker 1991; Ibeh, Brock and Zhou, 2004).

After, the advantages and disadvantages of each method are evaluated, the researcher's choice is to use the drop and collect questioner method as a means of data collection. That is because one of the most important advantages of this method over the rest of self-administrated methods is the high response rate. The other methods display a low response rates and low response rates compromise the reliability of the collected data (Robson 2011; Cohen et al., 2007).

Furthermore, it is most suitable for the sampling method used (i.e., snowball sampling), which involves researcher delivering the questionnaires to the identified group and returning on agreed upon time to collect the questionnaire. In other words, each member of this group worked as informants. In addition, 500 questionnaires were distributed and 405 were retained achieving response rate of (81%).

4.9 Data analysis

4.9.1 Validity

An instrument or scale can be considered valid only if it is measuring what it is intended to measure (Bollen, 1989; Grosof and Sardy, 1985). There are different types of validity, of interest, to this study construct validity, convergent validity and discriminant validity and these will be discussed next.

4.9.1.1 Construct validity

Construct validity concern is with the theory behind the hypothesized construct and how it is related to other constructs under investigation. It utilizes procedures to increase the researcher's confidence that the scale is measuring what it meant to measure, in a way allowing for meaningful inference to be made (Hair et al., 2010; Grosof and Sardy, 1985). In addition, Steenkamp and Van Trijp (1991) have suggested that in order to achieve construct validity, certain criteria have to be met. Some of these criteria are: 1) unidimensionality, 2) convergent validity, 3) discriminant validity, 4) reliability.

4.9.1.2 Unidimensionality

Unidimensionality implies the existence of a strong association between a scale's items and that these items represent one construct (Hair et al., 2010; Steenkamp and Van Trijp, 1991). To empirically assess the unidimensionality of the scale's items, a factor analysis is employed to determine the number of factors and the loading of each variable in to these factors. Performing a unidimensionality test on a summated scale requires that the items of each scale load highly on a single factor. Measures of unidimensionality can be assessed by exploratory factor analysis, EFA or confirmatory factor analysis CFA (Hair et al., 2010).

4.9.1.3 Convergent validity

This test is used to assess to what extent two measures of the same concept are correlated. Detecting a high correlation is a sign that the scale is measuring independent concepts (Hair et al., 2010; Grosof and Sardy, 1985). In the current study, convergent validity was assessed through examining the magnitude and the statistical significant of *t*-value of the factor loading estimate for each indicator (Hair et al., 2010).

4.9.1.4 Discriminant validity

Refers to how two conceptually similar constructs can be distinguished. This is tested by conducting a correlation between the summated scale and a similar measure, which is conceptually different. The correlation result should be low providing evidence that the summated scale is sufficiently different and distinct from other similar measures (Hair et al., 2010; Grosof and Sardy, 1985). In order to assess discriminant validity, Fornell and Larcker's (1981) formula for average variance extracted AVE was utilized. Achieving a high value for AVE is a sign that the indictors are truly representing the underlying latent construct.

In conclusion, the focus of construct validity is testing conceptual constructs; convergent and discriminant validity is empirically measuring correlation between theoretically defined sets of variables (Bollen, 1989; Grosof and Sardy, 1985). Convergent validity provides confirmation that measures of the same constructs are correlated; discriminant validity ensures the scale is different from other similar constructs, and it can be distinguished.

4.9.1.5 Reliability

Reliability is the assessment of the degree of consistency between multiple measurements of a variable (Hair et al., 2010). That means a measurement is considered to be reliable if it is consistent and predictable as well as correlating strongly with each other. Reliability can be further divided into the following subsections.

1-Test-retest: consistency is measured between the scores of an individual response in two different occasions. The purpose of this test is to ensure that various differences do not occur across a period of time and the measurement taken at any point is reliable (Hair et al., 2010; Grosof and Sardy, 1985). Pearson's correlation is computed for the two sets of measurements and in this case the correlation coefficient describes the stability of the measurement (Grosof and Sardy, 1985). In the current study, test-retest reliability is not going to be assessed as the nature of data collection in this study is cross-sectional and performing test-retest reliability requires a longitudinal study.

2-Internal consistency: This is a common test used to assess consistency between variables in summated scales; the assumption underlying this test is that individual items in the scale should be highly inter correlated and must be measuring the same construct (Hair et al., 2010). For the purpose of evaluating internal consistency, Hair et al. (2010) introduced three diagnostic categories:

(1) Measures related to each individual item particularly, *Item-to-total correlation* this is the correlation between the item and the summated scale score, and the rule of thumb for this suggests it should exceed .50. *Inter-item correlation* this displays the correlation between the items, and the suggested rule of thumb value is to exceed .30.

(2) Coefficient measuring the scale consistency as a whole, and Cronbach alpha is widely used for this matter. "Coefficient alpha is the basic formula for determining the reliability based on internal consistency" (Nunnally 1967, p. 210). The general rule agreed upon is that the minimum for coefficient alpha is .70 (Nunnally, 1967). Furthermore, when employing Cronbach alpha the positive relationship with the number of items constructing the scale has to be considered; that is because increasing the number of items in a scale yet with the same degree of inter-correlation will lead to an increase in the reliability values (Hair et al., 2010). Following these guidelines each scale items were subject to scale purification process and any item which did not meet the above mentioned criteria were deleted. In the appendix 2 SPSS output shows the final items retained for each scale.

(2) Measures conducted by applying confirmatory factor analysis include composite reliability and average variance extracted. In the research findings chapter coefficient alpha, composite reliability and average variance extracted are reported for each construct.

4.9.2 Common Method Variance

Similar to the current study, a large portion of studies which utilize behaviour theories, such as the theory of reasoned action, to examine the attitude-behaviour relationships employ cross-sectional designs (Lindell and Whitney, 2001). What this design implies is that participants are required to rate/report their attitudes and behaviours at the same time using self-reported instrument (i.e., questionnaires). As a result of this application, the possibility of a common method variance amplifying the correlation between the study constructs occurs (Lindell and Whiteny, 2001). In other words, common method variance, or the discrepancies in research results, mainly occurs because of the type of instrument measure which is employed to measure the research constructs not the constructs themselves (Podsakoff et al., 2003).

Behavioural researchers' concerns about the existence of common method variance biasing estimates of data sets is justifiable as it is the cause of measurement error which in turn compromises the validity of the drawn conclusions from the relationships (Podsakoff et al., 2003; Bagozzi and Yi, 1991). Measurement error is a problematic issue, and has both random and systematic effects on data sets; however, the most serious type is the systematic measurement error that is contributed to by common method bias causing modification to the observed relationships in such a way that it differs from the true relationships between the constructs (Podsakoff et al., 2003; Bagozzi and Yi, 1991).

In a cross-sectional survey there is almost always a risk which rises from potential sources of bias, regardless of all the steps undertaken to carefully design and translate the survey in an attempt to avoid miscommunication problems with the targeted respondents. There are six main sources of bias, which are likely to occur in international marketing research. These types arise from: (1) the respondent's desire to be socially acquiescent, (2) the desire to provide the socially acceptable response, (3) the impact of certain underlying cultural traits; (4) specific respondent characteristics, (5) the nature of the topic being studied, (6) a tendency not to respond to certain types of questions such as income and education (Craig and Douglas, 2000).

Because common method bias is mainly associated with survey instruments, there are some steps and procedures which have been suggested in order to reduce the appearance of these discrepancies; some in the questionnaire designing stage and others are statistical remedies which can be used in the data analysis stage. For example, at the questionnaire constructing stage, researchers Lindell and Whitney (2001) advised that questionnaires need to be relatively short to avoid participants' feelings of boredom and fatigue and to place variables that require little or no cognitive process at the end of the questionnaire (e.g., demographic variables).

Also, adding a marker variable to the questionnaire's measures that is not theoretically related to the other measures. In terms of addressing the common method variance issue statistically among the available alternative, Harman's single-factor model is considered a popular technique among researchers and is widely used to control CMV, and the common technique used to run the test has been exploratory factor analysis (Podsakoff et al., 2003; Podsakoff and Organ, 1986).

In addition, if the underlining postulation of the test is under the condition where a large proportion of common method variance is present in the data set, then one of these two cases will occur (a) a single factor will emerge as result of running the factor analysis or (b) one factor from the number of unrotated factors will significantly account for the majority of the variance in the constructs measures (Devaraj et al., 2002, Podsakoff and Organ, 1986). The way in which Harman's test is performed using exploratory factor analysis is by first loading all the study indicators into one factor then inspecting the unrotated factor solution in order to identify the number of factors required to account for CMV in the data set variables (Podsakoff et al., 2003).

In other words, CMV is considered a problematic issue as it is the reason for the occurrences of systematic error variance, jeopardising the validity of the interpretation of the drawn conclusion from data results if it accounts for a significant amount of the variation in the data set. As a result, Harman's single-factor test utilizing exploratory factor analysis was carried out in analysing the data.

4.9.3 Structural equation modelling SEM

Structural equation modelling (SEM) is a second generation of multivariate analysis technique that enable's constructing unobserved variables (Latent constructs) measured by observed measures, also known as indicators, items and manifests as well as modelling the measurement errors of these indicators/ observed measures (Haenlein and Kaplan, 2004; Chin, 1998). In other words, it was made possible to distinguish between measurement model and structural model while taking the measurement error into account. Consequently, SEM is defined by Hair et al.(2010) as a " Multivariate technique combining aspects of factor analysis and multiple regression that enables the researcher to simultaneously examine a series of interrelated dependence relationships among the measured variables an latent constructs (variables) as well as between several latent constructs" (PP.634) .Thus, the advent of SEM has facilitated for researchers' to "statistically test a priori substantive/theoretical and measurement assumptions against empirical data (i.e. confirmatory analysis)" (Chin, 1998, p. vii).

In the early 1980s structural equation modelling (SEM) was introduced to the marketing literature by the work of researchers such as Bagozzi (1980), Fornell and Larcker (1981) and Bagozzi and Yi (1988). Yet, a handful of articles applying SEM appeared in the marketing journals before the 1990s. Soon this has changed as the number of articles implementing structural equation modelling appearing in marketing journals have increased to more than two third between the period of 1995 and 2007 (Hair et al.,2011). Researchers' in the marketing field (i.e., Henseler et al., 2009; Steenkamp and Baumgartner, 2000) among others were motivated to employ SEM because of the technique's capability in enabling them to test theories and concepts in such way that could not be achieved with the first generation techniques (Hair et al.,2011).

That is because analysing data using structural equation modelling permits the simultaneous modelling of relationships between various independent and dependent

constructs, unlike the previous techniques (i.e., multiple regression) which requires analysing the relationships between independent and dependent constructs one linkage at a time (Haenlein and Kaplan, 2004;Gefen et al., 2000). As a result SEM has received attention for its ability of modelling causal, complex and multivariate data sets, where multiple indicators of the hypothesized constructs are gathered (Gefen et al., 2000). In addition, the researcher's choice to use SEM came as result of the various advantages SEM displays in theory testing and these are:

Firstly, the popularity of using structural equation modelling in marketing research relays on the techniques flexibility in tackling measurement and structural models simultaneously, which could not be achieved by employing a first generation techniques such as principle component analysis, factor analysis, and multiple regression analysis (Sauer and Dick, 1993). Secondly, the SEM application's domain has developed and an alternative functional form, such as interaction terms which have become part of the SEM allowing main and interaction effects to be tested. For instance, examining group difference through multi-group analysis and education data collected from different levels (i.e., students, teachers, and schools) are assessed by a multilevel SEM model (Sauer and Dick, 1993). Thirdly, SEM takes measurement error into account when analysing the data. The ability of one system to exhibit these alternative functions enables it to test a variety of competing theories. The final advantage is a user-friendly computer programs were created to provide assistance in analysing structural equation models (Sauer and Dick, 1993).

Structural equation modelling encompass of two approaches or families in relation to estimating parameters the covariance-based SEM (CB-SEM) and the variance-based SEM/ the components based SEM (Henseler et al., 2009). Each of these approaches has several different computer programs to perform the analysis. Nevertheless, the most popular one among the covariance-based SEM is LISREL and among the variance-based SEM is PLS (Henseler et al., 2009; Haenlein and Kaplan, 2004). Structural equation models covariance-based or variance-based shares a common feature they all have measurement and structural components. The measurement model displays how the latent variables and their indicators are related meanwhile, the structural model shows the relationships among the latent constructs. In other words, these different types of SEM are designed to utilize quantitative tests of a theoretical model hypothesized by the researcher (Schumacker and Lomx, 2004).

It is important before moving to how SEM model is evaluated by the chosen SEM technique, namely variance-based SEM (PLS) for this study to clarify the reasons behind this chose. This is achieved by firstly providing a brief introduction to each approach then the specific circumstances which led the researcher to be in favour of employing variance-based SEM over covariance-based SEM. Below is a brief introduction to each approach.

4.9.4.1 Covariance-based structural equation modelling (CB-SEM)

CB-SEM have being the dominating technique and the focus of the previous marketing research (i.e., Baumgartner and Homburg, 1996; Steenkamp and Baumgartner, 2000). The way in which covariance-based SEM operates is by developing a theoretical covariance matrix, and the matrix is established on a set of specified structural equations. The technique's objective is to estimate the model's parameters so the discrepancy between the theoretical covariance and the sample covariance matrix is minimized (Hair et al., 2011; Gefen et al., 2000). Although there are various computer

software which can be used to carryout structural equation modelling analysis (i.e., AMOS and EQS) (Blunch, 2008). However, LISREL (Linear Structural Relation) a well-known program invented by Joreskog (1973) has received the most popularity among these programs to the point where some researchers' considered using the term LISREL as an equivalent or synonym for covariance-based SEM (Hair et al., 2012; Blunch, 2008; Haenlein and Kaplan, 2004). However, only by satisfying a set of assumptions can CB-SEM estimate model parameters successfully (i.e., multivariate data normality and sample size). Conversely, in situations where CB-SEM assumptions cannot be met, for instance data distribution, the required minimum sample size, model complexity, non-convergent results such as Heywood cases PLS-SEM is considered an alternative technique for theory testing (Hair et al., 2011; Henseler et al.,2009).

4.9.4.2 Variance-based structural equation modelling (PLS-SEM)

The development of the second structural equation modelling technique covariance-based SEM/ Partial least square (PLS) is traced back to Wold (1975) who initially introduced it under the name NIPLAS (nonlinear iterative partial least square), later it was extended by Lohmöller (1989) (Haenlein and Kaplan, 2004; Hair et al., 2012). The purpose behind introducing PLS-SEM was to provide researchers' an alternative technique to the other SEM technique (i.e., CB-SEM) a technique that emphasize prediction while relaxing the demands on data and relationship specifications (Hair et al., 2012).

In contrast to the CB-SEM approach, where model parameters are estimated in way that permits the discrepancy between the estimated covariance and sample covariance matrices to be minimized. PLS-SEM focuses on maximizing the variance of the dependent variable/ endogenous latent variable explained by the independent variables/ exogenous latent variable (Hair et al., 2012; Haenlein and Kaplan, 2004). Moreover, the way in which PLS-SEM estimates latent variables scores is by considering them an

exact linear combination of their corresponding indicators Haenlein and Kaplan, 2004).

These scores, which are treated as a substitutes for the indicators, captures the variance needed to provide explanation for the dependent latent variable (Hair et al., 2012).

Furthermore, PLS-SEM has been projected to become a powerful analytical tool and has become popular and widely employed in many disciplines, for example in the area of marketing, consumer behaviour, strategic management, management information systems, organizational behaviour and information system (Chin, 2010; Henseler et al., 2009; Chin, 2003).

PLS-SEM popularity is due to its ability in overcoming some of the drawbacks of CB-SEM and for the current study PLS-SEM was favoured over CB-SEM study based on the following reasons:

Distribution assumption: Covariance-based SEM approach employs maximum likelihood (ML) tool in estimating model parameters, and ML is based on meeting assumptions that data are derived from multivariate normal distribution (Chin, 2010; Byrne, 2001). Previous research has indicated that meeting this assumption is difficult especially when applying marketing constructs (Zou and Cavusgil, 2002). For instance, measures presenting constructs such as beliefs, attitude and behaviour have been reported as skewed (Yoon and Barker Steege, 2012; Peterson and Wilson, 1992). In CB-SEM the result of violating the multivariate normality assumption could lead to a modelling construct with poor indicators which in return influence all the other estimates in the model (Yoon and Barker Steege, 2012).

In contrast, in PLS-SEM technique model estimation is based on series of ordinal least square regressions (OLS) and it does not hold any assumptions about data distribution (Hair et al., 2012; Chin, 2010) as result it is referred to as distribution-free "soft modelling approach" (Hair et al., 2010 p.416) . In addition, the traditional parametric techniques used for model evaluating and significance testing in covariance-based SEM

are not appropriate for PLS-SEM; consequently non-parametric evaluation techniques are used such as R^2 for explain the variance in the dependent latent construct and bootstrapping for testing the estimated parameter significance alongside with constructs and indicators reliabilities and validities (Hair et al., 2011; Chin, 2010; Gefen et al., 2000).

Sample size: The adequate sample size is crucial for performing CB-SEM and the accuracy of the parameter estimation as such that the technique faces (i.e., non-convergent and improper solution) problems when the sample size is small that is equal or below 200 as reported by Boomsma and Hoogland (2001). Likewise Bollen (1989) has suggested that the adequate sample size to perform CB-SEM should be at least 150 observations due to the sensitivity of chi-square statistics to the sample size (Gefe et al., 2000). The techniques under pertaining conditions about the sample size if not satisfied leads to number of issues for example, inadmissible solutions and identification problems particularly in complex models (Hair et al., 2012). Conversely, PLS-SEM perform well in situations where the sample size is considerably small, not that only but also with a complex models which cannot be achieved in the CB-SEM (Chin, 2010; Henseler et al., 2009' Chin et al., 2003).

As mentioned in the earlier point about data distribution PLS is based on sequence of ordinal least square and multiple regressions which analysis each construct in the model at a time therefore makes it less effected by sample size; this is unlike the CB-SEM which estimates the variance of all the observed variables in the mode at once (Gere et al., 2000). For example, a study by Reinartz et al. (2009) has showed that PLS succeeded in achieving statistical power in comparison to CB-SEM with sample size of only 100 cases (Haier et al., 2012).

The only demand on sample size in PLS is for the sample to have at minimum 10 times more data points or observations than the number of indicators of the largest construct in the model (Gefe et al., 2000).

Modelling moderation: Moderating variables are variables which cause moderating effects that influences the strength or the direction of a relationship between independent (exogenous variable) and dependent (endogenous variable) (Henseler and Fassott, 2010). Moderators can be categorical for example gender and social class, or metric variables such as consumer psychological constructs (Henseler and Fassott, 2010). "LISREL moderator specifications are technically demanding and not necessarily the complete solution" (Chin et al., 2003 p.195). This could be because of the underlying condition in covariance-based SEM, which requires the error terms of an indicator to be uncorrelated, and which does not hold in the case of product terms (indicator product). That is because product terms are produced by multiplication. It is expected for the error terms of an indicator product to partially correlate with another error term of an indicator which belongs to another independent latent variable (exogenous) (Chin et al., 2003). In contrast, when applying PLS-SEM these correlations are accounted for and it is used to produce a precise estimation of the interaction effects (Chin et al., 2003).

Based on the previous discussion PLS-SEM was chosen for this study because it is robust to non-normal data distribution, and it does not require large sample size (Alsomali, et al., 2009; Nadkarni and Gupta, 2007). Also, after including all the chosen moderating variables and interaction terms to the model; the model becomes very complex which is another justification for using PLS-SEM in analyzing study data instead of CB-SEM. Furthermore, it serves the study objectives in re-examining the effects that customer satisfaction with service providers' offline and online channels has on behavioural intention, that is, by evaluating the amount of variance explained by the

dependent latent construct and testing the postulated moderating effects of the chosen personality variables. SmartPLS 2.0 software (Ringle et al., 2005) was used for the purpose of estimating both the measurement model, which is referred to as the outer model, in terms of providing internal consistency, convergent validity and discriminant validity of the constructs which have been employed in the study, as well as estimating the structural model, which is often referred to as the inner model, by assessing the strength and direction of the proposed relationships.

4.9.3.1 Confirmatory factor analysis

Factor analysis is a statistical technique which consists of a combination of various statistical tools, which aims to present complex sets of data in a simpler form (Kline, 1994). The two predominant approaches to factor analysis are the exploratory (EFA) and the confirmatory (CFA) factor analysis (Bollen, 1989). While EFA is preformed when little is known about the phenomena to provide some suggestions about the underlying patterns which exist in the data, CFA is appropriate when the researcher has some knowledge of the latent variable structure and the theory behind it (Byrne, 2001; Bollen, 1989).

As a result of this discussion, and as mentioned earlier, all the scales of the study are established and empirically tested measures adopted from the literature. The interest of this study lies with confirming or rejecting the proposed relationships between latent variables and their indicators on the one hand and the relationships among the latent variables on the other (Diamantopoulos and Siguaw, 2000), for that purpose CFA is used.

In addition, CFA is represented by a measurement model in a structural equation modelling frame (Byrne, 2001). Measurement models show how latent variable (unobserved variable), which cannot be directly measured, is operationalized by the associating indicators (Hair et al., 2010; Diamantopoulos and Siguaw, 2000). Measurement model fit is assessed by evaluating both the validity and the reliability of the observed variables.

Validity is achieved if an indicator factor loading is >.70 and the (t-value) is equal or exceeds > 1.96 (Fornell and Larcker, 1981). Composite reliability of each scale is assessed by using formula introduced by Fornell and Larcker (1981); the targeted value is equal or greater than .60 (Bagozzi and Yi, 1988). Next, average variance extracted AVE is a measure used to indicate the overall amount of variance in an observed variable accounted for by its latent construct. The suggested guideline is for AVE equal or higher than .50 (Diamantopoulos and Siguaw, 2000; Bagozzi and Yi, 1988).

4.9.3.2 Theory testing

Once the measurement model (CFA) is assessed it is followed by testing the study hypothesis by the structural part of the model. This part focuses on the theoretical relationships among the latent variables and the initial goal is to assess the extent to which these relationships are empirically supported by the data (Byrne, 2001; Diamantopoulos and Siguaw, 2000). This process of testing theory against empirical data is called confirmatory mode of SEM application (Raykov and Marcoulides, 2000).

Anderson and Gerbing (1988) have recommended following a confirmatory two-Step approach for theory testing. The first step enables the measurement model to provide assessment of convergent and discriminant validity and the second step, given that acceptable convergent and discriminant results were achieved, the structural model provides an evaluation of the nomological validity. Consequently, examining the

measurement model and the structural model combined offers an extensive assessment of construct validity which is crucial for theory testing.

4.9.3.3 Reflective and formative indicators

The current study's chosen constructs are latent constructs, which are represented by reflective indicators. Distinguishing between the two types of indicators (reflective and formative) is important, because only be properly specifying the measurement model meaningful relationships can be assigned to the structural model (Anderson and Gerbing, 1988). Reflective models are commonly used to measure constructs such as attitudes and purchase intention (Jarvis et al., 2003).

The direction of causality is from the latent construct to the corresponding indicators (Jarvis et al., 2003). Consequently, changes in the latent constructs are hypothesized to cause variations in the indicators scores (Bollen, 1989), whereas the formative model is constructed by combining a set of indicators to form a latent construct, and the direction of causality flows from the indicators to the construct. In contrast to the reflective items, formative items are theorized as having influence on a construct and as the direction of causality is from the indicator to the construct the conceptual and empirical meaning of the construct is determined by the block or the group of formative indicators which the construct represent (Jarvis et al., 2003).

Furthermore, (MacKenzie et al., 2005) has mentioned that most of the scale development procedures available are designed for constructing reflective measures and employing them to a formative measure will damage the scale construct's validity. Specially, when construct validity is considered an important issue in theory testing and developing and it represents the degree of association between the construct and its indicators (Peter, 1981).

Another reason for distinguishing between reflective and formative measures is related to the item dropping procedure which was followed in the case of reflective scales in order to enhance the internal reliability of the scale (MacKenzie et al., 2005). Under internal consistency assumptions, all the items of latent construct are equal and highly correlated, so items are interchangeable. Also, because they are modelled to display one aspect of the underlying construct they are unidimensional. Therefore, eliminating items which display low item-to-total correlation does not lead to an alteration in the meaning of the underlying construct (Jarvis et al., 2003). Unlike reflective models formative models do not hold any assumptions about the internal consistency and unidimensionality of the indicators. Thus, each item represents a different dimension of the underlying construct and items are not interchangeable which means any changes which occur in one item do not lead to changes in the rest of the indicators and appears as an exogenous variable in the measurement model (Vinzi et al., 2010).

4.10 Summary

This chapter has encompassed the research methodology, starting with the research philosophy, approaches and strategies. This was followed by the research design, time horizon and research setting. Research took place in Kingdom of Saudi Arabia in the City of Jeddah, and the study sampling units are the males and females who hold an account in any Saudi bank; furthermore, the chosen sampling method and data collection approach was covered. Next data analysis procedures were discussed in terms of scales' validity, reliability, and common method bias the measurement and structural models, which are presented in the structural equation modelling frame as means of testing the hypothesis. Finally, the differences between reflective and formative indicators were covered.

The next chapter will provide the data screen procedures in detail, and this will be followed by the results of the reliability test and the employed confirmatory factor analysis. Then the study's proposed hypothesis will be tested, and a detailed explanation of the obtained results will be presented.

Chapter 5: Data Analysis

5.1 Introduction

This chapter is divided into two parts. The first part deals with the procedures for preparing the data for analysis after completing the data collection stage, before moving on to a multivariate analysis. It is important to view the data file for problems rising from the following issues: data entry errors or coding mistakes that might influence the accuracy of the data file, detecting outliers and extreme observations, handling missing data and, finally, testing data for multivariate normality assumption. This is followed by displaying the respondents' demographic data. During this stage, the computer program, SPSS 19 was used for the data screening process.

The second part of the chapter covers employing confirmatory factor analysis (CFA) in structural equation modelling to test the study hypotheses by evaluating indicators factor loadings, reliability and validity of both indicators and their latent constructs in the measurement model. Next, the data set is tested for the existence of common method bias; then an examination of the structural part of the model is conducted by estimating the path coefficients of the main and interacting relationships between the constructs before accepting or rejecting the proposed hypotheses. SmartPLS 2.0 is the software package used in running the CFA and the structural equation modelling. This chapter is concluded by a summary.

5.2 Preparing data for analysis

5.2.1 Accuracy of data file

To ensure that the data file is free from entry errors or coding mistakes, Tabachnick and Fidell (2007) have suggested running a series of descriptive statistic examinations and graphical presentations of the univariate variables in the data file. Taking the authors' recommendation SPSS 19 program (Bryman and Cramer, 2011) was utilised, the descriptive statistic's part was included and a check is done to see whether there are any variables displaying out of range values, if means and the standard deviations display unacceptable values and to detect any extreme values.

The descriptive statistics were also complemented by graphical presentation of the data and for that purpose a frequency histogram, box plots (to detect outliers or the extreme variables), a Q-Q plot, a detrended normal plot and normal probability plots were used to show the distribution of the variables' scores (Hair et al., 2010; Sharma, 1996). The data file was carefully examined and all the measured variables in the study were in range, means and the standard deviations exhibit reasonable values.

5.2.2 Missing data

Missing data represents a serious problem for analysis. The significance of this issue differs depending upon the pattern of the missing data more than how much of data is missing. If data is missing randomly then it does not present a problem, but if the missing data are missing non-randomly, it is a serious problem affecting the generalisation of the results (Tabachnick and Fidell, 2007). Missing data is categorized into missing completely at random (MCAR), missing at random (MAR) and missing not at random (MNAR) and this latter type imposes a serious problem and cannot be ignored. Tabachnick and Fidell (2007) advocated there is no fixed guideline for what can be considered an acceptable amount for any giving sample size.

However, if a substantial amount of data is missing, more than 10% from a moderate to a small size sample, then this will raise serious problems with analysis (Malhotra and Birks, 2003; Tabachnick and Fidell, 2007). On the other hand, if only few points of data, 5% or less, are MAR from a relatively large sample it would probably not raise concerns and any procedure of handling missing data can be applied, that is list wise deletion (LD), pair wise deletion (PW) or imputation procedures, where missing data is replaced by an estimate of the missing value (Tabachnick and Fidell, 2007; Marsh, 1998).

1-List wise deletion: in this procedure, any case with missing data is removed and eliminated from any further analysis. This approach of handling missing data has many desirable features, for instance it produces reliable estimation when used with some estimation procedures (e.g., maximum likelihood). It yields a positive definite covariance matrix only if the complete cases after applying LD are greater or higher than the number of the observed variables in the data set and as long as the intended tests are appropriate (Marsh, 1998; Bollen, 1989). On the contrary, discarding a large amount of cases where time and cost have been spent to collect them is not favourable. In addition, this approach leads to a reduction in the sample size resulting in inadequate parameter estimates (Malhotra and Birks, 2003; Enders and Bandalos, 2001). On that note, LD can only be desirable when the number of missing cases is substantially small and the sample size is large (Marsh, 1998; Bollen, 1989).

2-Pair wise deletion: in this procedure missing data is calculated based on estimating each covariance of missing data for all cases, with complete data for that particular pair of variables. The notion behind this approach is derived by the desire to retain as many variables as possible (Marsh, 1998). In this study, 405 questionnaires were retained. From these, 19 cases displayed incomplete data in the majority of the questions because respondents failed to complete the entire questionnaires; as a result, they were classified

as non ignorable and were excluded. Next, the remaining 386 questionnaires were further examined by SPSS descriptive statistics in particular frequencies and missing values were found in four cases on the following scales.

On case number 266 one value was missing from item 7 on the extraversion scale. Case number 279 had missing values in items 7 and 8 on the neuroticism scale and item number 4 on the openness to experience scale. Furthermore, the neuroticism scale in case number 325 had a missing value on item 7. The last missing value was detected in case number 93 on item 8 of the technology readiness scale.

At this stage, a decision has to be made whether to retain these cases or delete them based on the SPSS output and checking the actual questionnaires for any data entry errors. In addition, considering Tabachnick and Fidell (2007), Marsh (1998) and Bollen's (1989) suggestions, if a few cases display missing values on different variables, then excluding them from further analysis is probably the best choice. Accordingly, LD procedure was employed resulting in the deletion of cases 93, 266, 279 and 325, leaving 382 complete cases.

5.2.3 Outliers

Outliers are those observations with unique characteristics which allow them to be identified and differentiated from the rest of the observations. Because outliers influence data leading to severe alteration of the statistical tests, it is important to examine data prior to analysis by determining the influence and the classification of any outlier that might be present in data (Hair et al., 1998). The procedures in tackling univariate and multivariate outliers for continuous ungrouped data such as regression, factor analysis and structural equation modelling, requires handling all of the observations at once. Univariate outliers can be detected graphically by using a histogram and box plot, where

as multivariate outliers are detected by the statistical test of Mahalanobis distance (Tabachnick and Fidell, 2007).

5.2.3.1 Identifying univariate outliers

Univariate outliers were detected by histograms and box plots which required further examination of the variables' distribution to clarify if these cases represent a true outlier or are exceptional unique cases of the population. As a consequence, only cases that display standardised scores of 3 or larger are deemed to be true outliers (Hair et al., 1998). Viewing the graphical part in SPSS output together with the standardized scores (z-scores); reveal that univariate outlier does not occur among the study variables.

5.2.3.2 Identifying multivariate outliers

Multivariate outliers are observations with unique score combinations which might occur on two or more variables (Tabachnick and Fidell, 2007). To detect extreme values in multivariate data the Mahalanobis D^2 measure is utilized. In this approach the distance of each observation from the centre of all the observations is measured in multidimensional space. This produces one value for each observation; a high value indicates observation, which is distinct from the rest of the variables in this multidimensional space (Hair et al., 2010). Moreover, Mahalanobis distance test is estimated by chi-square and the degree of freedom that is equivalent to the number of variables tested; a variable is deemed to be a potential outlier if the p-value displays a significant level of less than .001 (p<.001) (Tabachnick and Fidell, 2007). Among the data set, two cases have illustrated Mahalanobis distance greater than $x_6^2 = 22.95$ and p-value <.001, as a result they were considered outliers and removed from the data set, which reduced the final sample size to 380 with response rate of (76%).

5.2.4 Testing for multivariate normality

Conducting a multivariate analysis demands testing the underlying assumption twice; first on an individual variable level (i.e., univariate test) and second on a collective multivariate level (Hair et al., 2010). In order to assess univariate normality, assumption graphic and statistical tests were carried out for each variable. The graphical examination provides a visual representation of the variables and it is done by visually evaluating the Q-Q plots, the detrended normal plots and the normal probability plots with the Q-Q plot illustrating a line indicating variables that are normally distributed and the detrended normal plot displaying the residuals, which should appear random and gathered around zero (Sharma, 1996). The graphical presentation showed almost all the variables in the data set to be departing from normality. The statistical assessment of univariate normality is done by evaluating the Kolmogorov-Smirnov test and the Shapiro-Wilk test. Of the two tests, the Shapiro-Wilk test is considered more effective in assessing univariate normality (Sharma, 1996). Hence, both tests were found significant indicating that variables deviate from normality.

Next, since most of the data appears to be derived from non-normal distribution, which affects the symmetry of the distribution, so the mean of the skewness variable is not in the centre of the distribution, and kurtosis that is related to peak (i.e., positive) of the distribution which could be either too peaked with a short and thick tail, or too flat (i.e., negative) with a long thin tail (Hair et al., 1998) are further examined to assess how severe the departure is from normality and if transformation will be required. A normally distributed variable would have skewness and kurtosis values of zero (Hair et al., 1998).

In addition, and after closely examining each variable's skewness and kurtosis values, it appears that the data departs from normality. Obtaining this information is important as it helps in making a decision of which statistical techniques are appropriate to employ in the study. Because the variables in this data come from non-normal distribution, meeting multivariate normality is not expected. As a result, a decision was made upon utilizing the partial least square technique (PLS). Unlike other structural equation modelling techniques such as Lisrel and AMOS, PLS does not make any distribution assumptions (PLS is further discussed in section 5.3.1). It is worth mentioning that not meeting the multivariate normality assumption in this study is not surprising especially when the Likert scale is in use as it almost always violates the under pertaining assumption of multivariate normality and the deviation from normality is presented by high skewness values, which influence Pearson's correlation (Muthén, 1984).

5.2.5 Sample participants' profile

In this study snowball sampling technique were used and 500 questionnaires were distributed to Saudi banks customers in the city of Jeddah, Saudi Arabia. Questionnaires were collected by means of drop and collect method and respondents who agreed to take part in this study have included university students, employees of private companies, beauty salons customers and staff members of both King AbdulAziz and King khalid hospitals. 405 questionnaires were retained with response rate of (81%), after the data screening stage 25 questionnaires were excluded from further analysis leaving 380 complete questionnaires with a response rate of (76%), similar results with a study using the same data collection and sampling method conducted by Mahdi (2012) in Saudi Arabia. This high response rate is expected in this method of data collection (Al-Hawari, Hartely and Ward, 2005; Saunders et al., 2009; Baker, 1991). Data collection took place from mid July to mid November 2011.

Table 5-1 depicted below shows that of the 380 respondents, one hundred and ninety-nine (52.4%) are male and one hundred and eighty-one (47.6%) are female. Seven respondents (1.8%) are twenty one or younger; A significant 179 of the respondents (47.1 %) are between 21 and 30 years of age, 135 of the respondents (35.5%) are between 31 and 40 years of age; and 48 of respondents (12.6%) are between 41 and 50. Finally, 11 of the sample respondents (2.9%) are older than 50.

In terms of the participants' education level, a significant 243 (63.9%) of the customers' are bachelor degree holders, followed by 68 (17.6%) of the participants who have finished their diploma, 37 are postgraduates and making 9.7% of the sample, 28 of the participants (7.4%) completed their high school; five customers (1.3%) complete less than high school.With respect to the income levels, the majority of the sample participants (91 which is 23.9%) earn around 4,000 SR; 82 (21.6%) between 4,000 and 6,000; 65 (17.1%) earn income between 6,001 and 8,000; 64 (16.8%) earn between

8,001 and 10,000; 56 (14.7%) earn between 10,001 and 15,000. Only, 22 (5.8%) of the respondents' earn more than 15,000. In conclusion, the majority of the sample participants were young male university students with an income of less than 4,000 SR.

Gender				
	Frequency	Percent	Valid Percent	Cumulative Percent
Male	199	52.4	52.4	52.4
female	181	47.6	47.6	100.0
Age				
younger than 21	7	1.8	1.8	1.8
21-30	179	47.1	47.1	48.9
31-40	135	35.5	35.5	84.5
41-50	48	12.6	12.6	97.1
older than 50	11	2.9	2.9	100.0
Education				
less than high school	5	1.3	1.3	1.3
high school	28	7.4	7.4	8.7
diploma	67	17.6	17.6	26.3
bachelor degree	243	63.9	63.9	90.3
postgraduate degree	37	9.7	9.7	100.0
Income				
less than 4,000 SR	91	23.9	23.9	23.9
4,000-6,000 SR	82	21.6	21.6	45.5
6,001-8,000 SR	65	17.1	17.1	62.6
8,001-10,000 SR	64	16.8	16.8	79.5
10,001-15,000 SR	56	14.7	14.7	94.2
more than 15,000 SR	22	5.8	5.8	100.0
Total	380	100.0	100.0	

Table 5-1: Demographics of respondents (*SR = Saudi Riyal)

5.3 Data Analysis

5.3.1 Reporting and Evaluating PLS-SEM

Next, discussion moves to how to evaluate PLS-SEM model and what are the criteria followed in reporting PLS-SEM results. A good model fit is evidence that the proposed study model is supported by the data. Firstly, evaluating measurement model in PLS-SEM requires assessing reliability and validity of the items and the latent constructs in the model. For the purpose of evaluating constructs reliability, composite reliability is used as a representation of the constructs internal consistency in PLS; that is because composite reliability does not hold assumptions of considering all items been equally reliable like Crobach's alpha and that meets the way PLS process items according to their reliability values during model estimation (Hair el al., 2011) A construct achieving value equal or above .70 is considered reliable meanwhile scoring reliability value below 60 is deemed unreliable (Hair et al., 2011; Chin,1998). Similarly, indicators reliability needs to be assessed and that is done by evaluating factor loadings values. Indicators factor loadings needs to be equal or above .70, if an indicator factor loading falls between (40-70) it can be deleted but only if that will result in improvement of the constructs composite reliability (Hair et al., 2011). Nevertheless, Falk and Miller (1992) advocated, latent construct indicators are considered appropriate for establishing item reliability if their factor loadings exceeds .55 (Boßow-Thies and Albers, 2010; Wilson, 2010).

Next, assessing validity of the measurement model focus on convergent and discriminant validity. For convergent validity the AVE (average variance extracted) is assessed by employing Fornell and Larcker (1981) formula and the role of thumb is for an AVE value to be equal or greater than .50 which is an indication that the indicators explain more than half of the variance in the latent variable they represent. Discriminant

validity is evaluated for both construct latent variables and indicators. On the latent construct level discriminant validity is achieved if the square root of AVE for each construct is greater than its shared correlation with other latent constructs (Hair et al., 2011; Chin, 2010). On the indicators level the cross-loadings from PLS output are examined and discriminant validity is confirmed if indicators exhibit high factor loadings on their respective constructs more than all the other constructs in the model (Hair et al., 2011; Zhang et l., 2006).

After achieving a sound measurement model which exhibit reliable and valid indicators and constructs analysis moves to evaluating the structural model. The main evaluation criteria used on this level are R^2 measure and the significance levels of the path coefficients (Hair et al., 2011). R^2 is an import predictor of structural model fit in PLS that is due to the techniques prediction-orientated nature. Hence, depending on the R^2 levels a strong or weak explanation of the dependent (endogenous) latent construct variance can be provided. However, the judgement of when to consider R^2 value high and adequate predictor in explaining dependent latent construct variance differ depending on the area of research for instance in consumer behaviour R^2 value of 20 is considered high meanwhile in some marketing studies R^2 values vary between substantial (0.75), moderate (0.50) and weak (0.25) (Hair et al., 2011;Chin, 2010). Because PLS does not hold assumptions of normal data distribution it applies nonparametric (i.e., bootstrapping). Consequently, bootstrapping procedures are carried out to assess the significance levels of the presented path coefficients, which are described as standardized beta coefficients, in the PLS model. "The procedure creates a large, pre-specified number of bootstrap samples (e.g., 5,000) by randomly drawing cases with replacement from the original sample. Each bootstrap sample should have the same number of cases as the original sample" (Hair et al., 2011 p.148).

5.3.2 Measurement Model

5.3.2.1 Confirmatory factor analysis

The focus of internal consistency is the degree of the interrelatedness among items of the scale, whereas unidimensioanlity's (e.g., homogeneity) concerns lie with whether or not the scale items are underlining a single construct or a factor as it is possible to have a set of items which are interrelated but not unidimensional and because coefficient alpha does not perform as a measure of unidimentionality (Hulin et al., 2001) some researchers (Al-Hawari et al., 2005; Miller, 1995; Cortina, 1993; Anderson and Gerbing, 1988) are in favour of assessing internal consistency after establishing scale unidimensioanlity, which is thought to reduce scale misspecification.

Following the preceding suggestions, confirmatory factor analysis was performed on all the multi-item scales only, namely: behavioural intention, satisfaction with employee channel performance, personality scales and technology readiness, as satisfaction with online banking is represented by a single indicator. All the scales are established measures and exhibit unidimensionality.

However, performing CFA on the four dimensions of the technology readiness scale has resulted in confirming only two dimensions to be reliable: optimism with coefficient alpha (α =.82) and innovativeness (α =.78). The other two dimensions relating to discomfort and insecurity were found to be unreliable as unique dimensions. These problems with the TR scale's dimensionality have been reported in the literature (Liljander et al., 2006; Yi et al., 2003; Taylor et al., 2002). Conversely, there are others which succeeded in extracting the four dimensions such as (Lin and Hsieh, 2006; Parasuraman, 2000).

Lilijander et al. (2006) articulate that failing to confirm the scale's four dimensions could be related to the service itself, meaning that the common factor between the previous studies which failed to report the reliability of the four dimensions and the current study is that it surveyed customers of one particular service (i.e., Saudi banks customers'). Meanwhile those which reported the undimensionality of the scale have surveyed TR in general among random samples. In addition, Parasuraman (2000) has stated "without further studies, the reasons for these discrepancies can only be speculated on" (Lilijander et al., 2006 p182).

Consequently, in the current study in order to examine the proposed hypothesis that technology readiness has a positive moderating effect which strengthen the relationship between customers' satisfaction with online channel performance and their behavioural intentions. Technology readiness is modelled as exogenous latent construct and it is presented by two indicators which is created by averaging the measurement items in each dimension. This is a common approach in psychology (i.e., Costa and McCrae, 1992) and marketing (i.e., Lin and Hsieh, 2006; Grice, 2001) especially when an adequate sample size is available to conduct the analysis which is the case in this study. For the purpose of analysis, the research proposed a conceptual model displayed in figure (3-2) which was utilised through Smart PLS 2.0 (Ringle et al., 2005) to evaluate the psychometric properties of the measurement model, and to assess the parameters of the structural model while taking into account the moderating latent constructs. A PLS confirmatory factor analysis was performed on all the study latent constructs. Table 5-2 below provides some descriptive statistics, including the means and standard deviation of each construct and the number of items retained.

Construct	Number of items	Mean	Standard Deviation
Behavioural intention (BI)	6	3.507	.843
Satisfaction with employee (SAT-Em)	8	3.369	.680
Satisfaction with online (SAT-Online)	1	3.415	1.193
Extraversion (Extrav)	3	3.078	.399
Neuroticism (Neuro)	5	2.860	.583
Openness to Experience (Openness)	5	3.329	.795
Technology readiness (TR)	2	3.117	.492

Table 5- 2: Descriptive statistics

	BI	SAT-Employee	SAT-Online	Extraversion	Neuroticism	Openness to experience	TR
BI1	*0.72*	0.33	0.19	0.23	0.07	0.16	0.18
BI2	*0.74*	0.34	0.13	0.09	0.07	0.18	0.12
BI3	*0.83*	0.35	0.14	0.20	0.09	0.18	0.16
BI4	*0.84*	0.33	0.16	0.25	0.12	0.20	0.20
BI5	*0.77*	0.33	0.14	0.23	0.13	0.16	0.14
BI6	*0.71*	0.31	0.20	0.21	0.08	0.20	0.20
SAT-Em3	0.22	*0.64*	0.17	0.15	0.05	0.02	0.05
SAT-Em4	0.28	*0.62*	0.15	0.11	0.12	0.05	0.03
SAT-Em5	0.32	*0.69*	0.18	0.06	0.15	0.01	0.00
SAT-Em6	0.37	*0.80*	0.14	0.10	0.11	0.06	0.06
SAT-Em7	0.26	*0.70*	0.10	0.05	0.09	0.06	0.06
SAT-Em8	0.33	*0.73*	0.16	0.07	0.10	0.04	0.05
SAT-Em9	0.36	*0.77*	0.14	0.14	0.19	0.09	0.02
SAT-Em10	0.24	*0.71*	0.19	0.12	0.06	0.02	0.02
SAT-Online	0.21	0.22	*1.00*	0.14	-0.04	0.11	0.16
Extrav1	0.13	0.04	0.05	*0.63*	-0.05	0.26	0.24
Extrav3	0.23	0.14	0.17	*0.82*	-0.06	0.28	0.28
Extrav5	0.20	0.11	0.07	*0.73*	-0.05	0.25	0.25
Neuro5	0.13	0.13	0.02	-0.01	*0.88*	0.04	0.03
Neuro6	0.11	0.17	-0.08	-0.10	*0.86*	-0.09	0.02
Neuro7	0.01	0.10	-0.02	-0.07	*0.63*	0.04	0.07
Neuro8	0.04	0.07	-0.08	-0.12	*0.59*	0.03	0.05
Neuro9	0.01	0.01	-0.06	-0.15	*0.57*	-0.01	-0.00

Openness2	0.04	-0.00	0.02	0.25	-0.00	*0.60*	0.21
Openness3	0.18	0.01	0.07	0.28	-0.04	*0.78*	0.22
Openness4	0.19	0.04	0.09	0.26	-0.00	*0.83*	0.23
Openness5	0.23	0.08	0.10	0.30	-0.01	*0.85*	0.23
Openness6	0.17	0.09	0.10	0.29	0.00	*0.74*	0.26
TR-Optimism	0.23	0.05	0.16	0.33	0.04	*0.27*	*0.95*
TR-Innovativeness	0.11	0.03	0.10	0.27	0.01	*0.23*	*0.74*

Table 5-3: Loadings and cross-loadings of the constructs measures.

Factor loadings need to exceed .55 in order to consider constructs indicators reliable (Falk and Miller, 1992). In addition, results as shown in table 5-3 have illustrated all the indicators having higher loadings on their respected constructs than their cross loading on other constructs. Next, in order to ensure the reliabilities of the various construct indictors. A composite reliability test was performed. Composite reliability scores need to exceed ($\rho\eta$) >.60 (Bagozzi and Yi, 1988) for a construct scale to be deemed reliable.

Table 5-4 displays all the constructs' scores which achieved values greater than the established reference value. Composite reliability values ranged between .80 for the extraversion scale (Extra) and .90 for the behavioural intention scale (BI). In addition, the table exhibits the results of calculating coefficient alpha the internal consistency test >.70 (Nunnally, 1967).

The latent construct alpha score range is between 70 and 86, all appearing to be above the recommended value. However, an exception would be the value of the extraversion scale (α=.60).

	AVE	Composite Reliability	Cronbach Alpha
BI	0.59	0.90	0.86
SAT-Employee	0.50	0.90	0.85
Extraversion	0.53	0.80	0.60
Neuroticism	0.51	0.83	0.82
Openness to Experience	0.59	0.90	0.83
TR	0.72	0.83	0.70

Table5-4: Psychometric properties of the measurement model (outer model).

Convergent validity was also assessed through the average variance extracted (AVE), originally proposed by (Fornell and Larcker, 1981) for each construct in the measurement model. As illustrated by table (5-4) all the latent variables achieved AVE scores greater than .50 (Bagozzi and Yi, 1988) indicating that 50% or more of the variance in the latent constructs is accounted for by their indicators (Chin, 2010). Furthermore, discriminant validity test was conducted. Discriminant validity is satisfied when the square root of average variance extracted for each construct exceeds the shared correlation that constructs have with other constructs in the model. Table (5-5) shows in detail the square root AVE (*italic and bold diagonal*) for each construct in the model. AVE value appears higher for each construct than the correlation value with any other construct, leading to the confirmation of the existence of discriminant validity in study measurement model.

	BI	*SAT-Employee*	*Extraversion*	*Neuroticism*	*Openness to experience*	*TR*
BI	*0.76*					
SAT-Employee	0.43	*0.70*				
Extraversion	0.26	0.14	*0.72*			
Neuroticism	0.13	0.16	-0.08	*0.71*		
Openness to experience	0.23	0.07	0.35	-0.02	*0.786*	
TR	0.22	0.05	0.35	0.03	0.29	*0.84*

Table 5-5: Constructs correlations, and the square roots of the AVE in ***italic bold diagonal.***

5.3.2.2 Common method bias

After ensuring that the measurement model yielded satisfactory results and before moving to test the study specified hypothesis, Harman's one-factor test (1976) was carried out to examine the severity of the common method bias which could be due to employing the survey instrument for data collection (Podsakoff et al., 2003). SPSS was used to perform principle component factor analysis. The way in which the test was carried out is by firstly loading all the study variables into EFA and constraining the number of factors extracted into one then the un-rotated solution was examined. Variance explained by the one factor was (29.4%) which is an indication that common method bias is not considered a threat to the study results. The output of performing Harman's single-factor test utilized by using EFA in SPSS is found in appendix 3.

5.3.3 Hypotheses testing results

The path coefficients and R squares of the main proposed relationships without the moderating effects are illustrated in table 5-6 and figure 5-1. Relationships were estimated by utilizing Smart PLS 2.0. For determining the significance of the path coefficients in the structural model, the bootstrap sampling method (samples 500) was performed. As expected customer's behavioural intention was found to be significantly determined by customer satisfaction with an online banking channel's performance (β=.123, p<0.01) and their satisfaction with a service provider's employee performance (β=.402, p<0.001) accounts for .199% of the behavioural intentions variance which supports H1 and H2. Similarly, customer satisfaction with a service provider's employee performance has a significant positive effect on satisfaction with the online channel's performance (β=.215, p<0.001) providing support for H3 and accounting for .047% of the variance in satisfaction with online banking.

	Path coefficient	Mean	STDEV	STERR	T -value
SAT-Employee -> BI	0.4026	0.4103	0.0495	0.0495	8.12***
SAT-Employee -> SAT-Online	0.2158	0.2167	0.0506	0.0506	4.26***
SAT-Online -> BI	0.1231	0.1209	0.0425	0.0425	2.89**

Table 5-6: Main effects
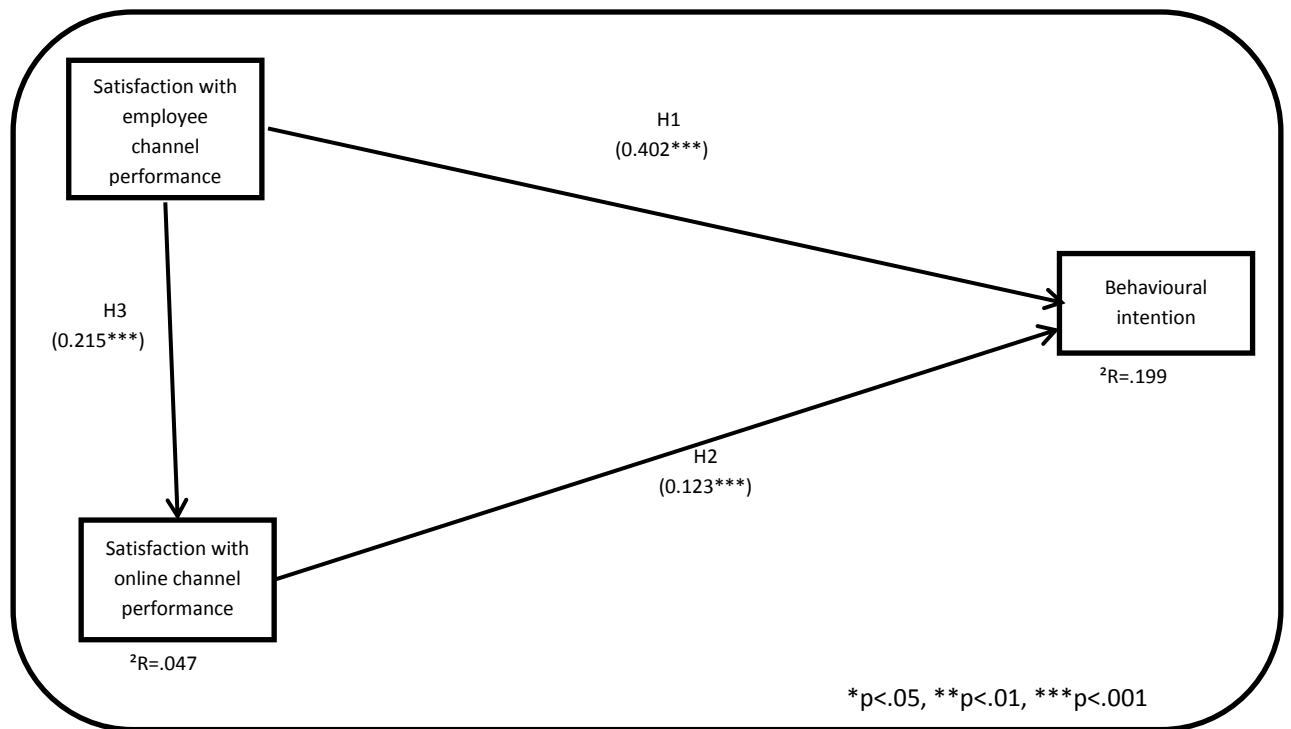
Figure 5-1: Main effects model

5.3.4 Testing the moderating roles of personality traits and technology readiness.

Next, the moderator latent variables are introduced to the model to create the interaction term or product terms. Interaction variables are created by standardising all the indicators reflecting the exogenous latent variables and the moderator latent variables in the study. This is so that it would have a mean of zero and variance of 1 before cross-multiplying the items (Henseler and Fassott, 2010; Chin et al., 2003). This step is important as it helps in reducing multicollinearity effects which usually occur from producing interaction terms (Yoon and Barker Steege, 2012; Henseler and Fassott, 2010). Accordingly, the interaction terms are as follows: (extraversion*satisfaction with employee performance), (extraversion*satisfaction with online banking performance), (neuroticism*satisfaction with employee performance), (neuroticism*satisfaction with online banking performance), (openness to experience*satisfaction with employee performance), (openness to experience*satisfaction with online banking performance) and (technology readiness*satisfaction with online banking).

Moderating effects are examined by evaluating the direct linkages that independent (exogenous variable), moderating variable as well as the produced interaction terms have with the dependent (endogenous variable) (Wilson, 2010). The study's proposed propositions of the moderating effects of customers' personality are supported, if the relationship between the interaction term and the endogenous variable is significant (i.e., the direct path coefficient between interaction term and behavioural intention in this study) (Wilson, 2010). Moreover, moderating effects are assessed by comparing the amount of variance explained which is captured by the determination coefficient R^2 of the main model (i.e., model without the moderation effects) and the R^2 of the full model (i.e., model with the moderation effects), as well as the effect size using Cohen's f^2 formula (Chin, 2010; Wilson, 2010; Chin, 2003).

Table (5-7) shows the moderating variables, the interaction terms and the associated t-values. Thus, "paths that are nonsignificant or show signs contrary to the hypothesized direction do not support a prior hypothesis, whereas significant paths showing the hypothesized direction empirically support the proposed causal relationship" (Hair et al., 2011 p.147). Consequently, the relationship between customers' satisfaction with employee channel performance and behavioural intention were found moderated by personality traits extraversion, neuroticism and openness to experience, leading to accepting hypotheses H4a, H5a and H6a. In addition, the relationship between customers' satisfaction with online banking channel performance and their behavioural intention were found to be moderated by only extraversion (β= 101, p<.05) leading to accepting hypothesis H4b. Meanwhile the moderating effects of neuroticism (H5b) and openness to experience (H6b) were rejected. Similarly, the moderating effect of technology readiness was not detected and hypothesis H7 was consequently rejected.

	Path Coefficient	Mean	Standard Deviation	Standard Error	T- Statistics
SAT-Employee -> BI	0.326	0.3122	0.0511	0.0511	6.38***
Extraversion -> BI	0.121	0.1289	0.0499	0.0499	2.42**
SAT-Employee * Extraversion -> BI	-0.106	-0.1165	0.0517	0.0517	2.05**
Neuroticism -> BI	0.095	0.0927	0.0434	0.0434	2.19**
SAT-Employee * Neuroticism -> BI	-0.101	-0.1094	0.0429	0.0429	2.35**
Openness to Experience -> BI	0.119	0.1155	0.0522	0.0522	2.28**
SAT-Employee * Openness to Experience -> BI	0.124	0.1238	0.058	0.058	2.13**
SAT-Employee -> SAT-Online	0.192	0.196	0.0523	0.0523	3.67***
SAT-Online -> BI	0.095	0.0848	0.041	0.041	2.32**
Technology Readiness -> BI	0.081	0.089	0.0466	0.0466	1.75
SAT-Online * Extraversion -> BI	0.101	0.0965	0.0531	0.0531	2.02*
SAT-Online * Neuroticism -> BI	-0.041	-0.0476	0.0322	0.0322	1.29
SAT-Online * Openness to Experience -> BI	0.037	0.0553	0.0396	0.0396	0.94
SAT-Online * Technology Readiness -> BI	-0.012	-0.0471	0.0332	0.0332	0.36

Table 5-7: Interaction effects

5.3.4.1 Validating the interaction effect size (f²)

In order to validate the interaction effects displayed in table (5.6), the overall effect size

(f²) was calculated. Interaction effect size is captured by the difference between the R-

square of the main effects model and the R-square of the interaction model as follows:

$f^2 = [R^2$ (interaction model)$-R^2$ (main effects model)$]/ [1-R^2$ (main effects model)$]$ (Chin

et al., 2003). Cohen (1988) suggested that the interaction effect size is considered small

if $f^2 = 0.02$, medium if $f^2 = 0.15$ and large if f^2 yields a value $= 0.35$ (Chin, 2010). The

study yield interaction effect of $f^2 = [.283-.199]/ [1-.199] = .104$ indicating small to

medium effects. Figure 5-2 represents the study proposed model with results obtained

from PLS followed by figure 5-3 which illustrates the plotted interaction effects.
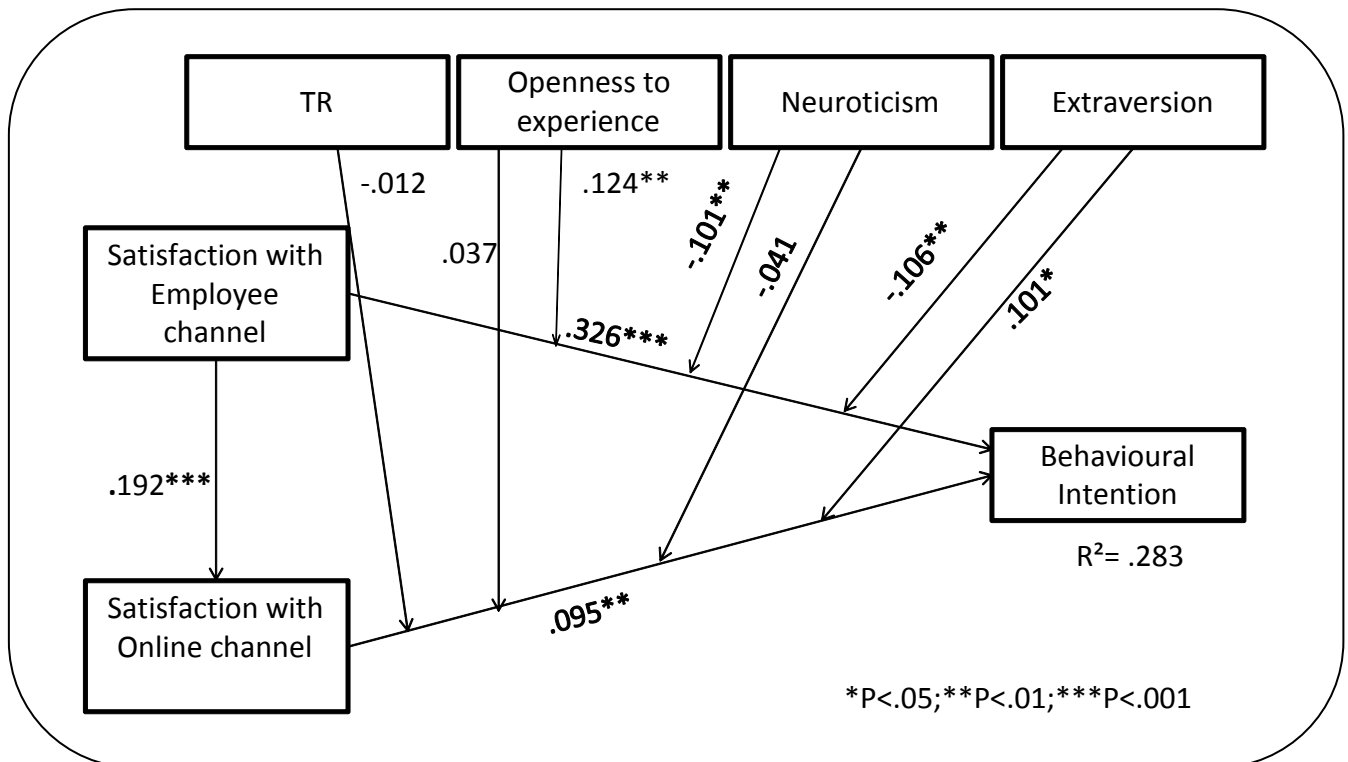
Figure5-2: Full model results

Figure: 5-3 plots of the significant moderating effects.

1) Low extraversion weakens the positive the relationship between satisfaction with employee channel performance and behavioural intention
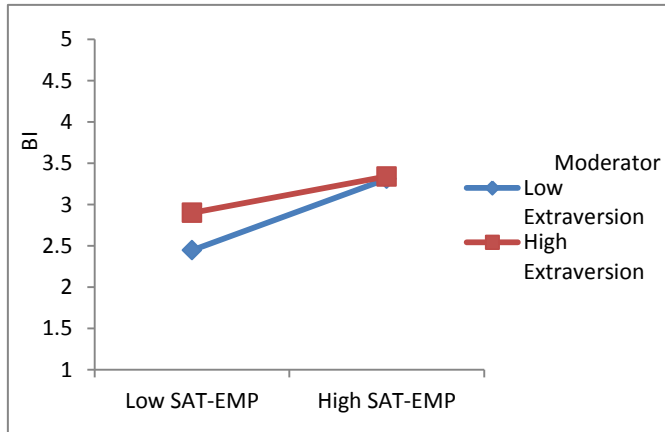
2) High Extraversion strengthen the positive the relationship between satisfaction with online channel performance and behavioural intention
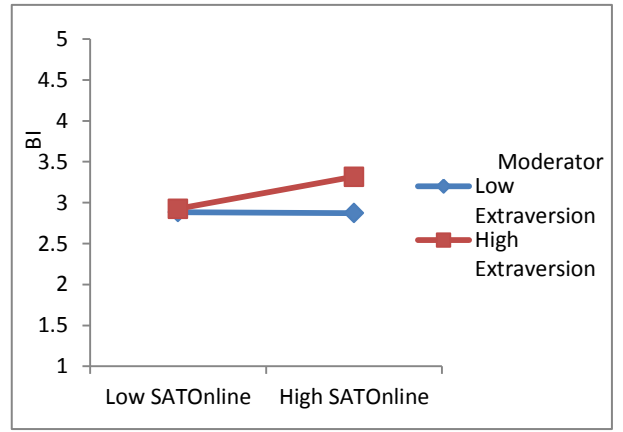
3) Neuroticism weaken the positive relationship between satisfaction with employee channel performance and behavioural intention.
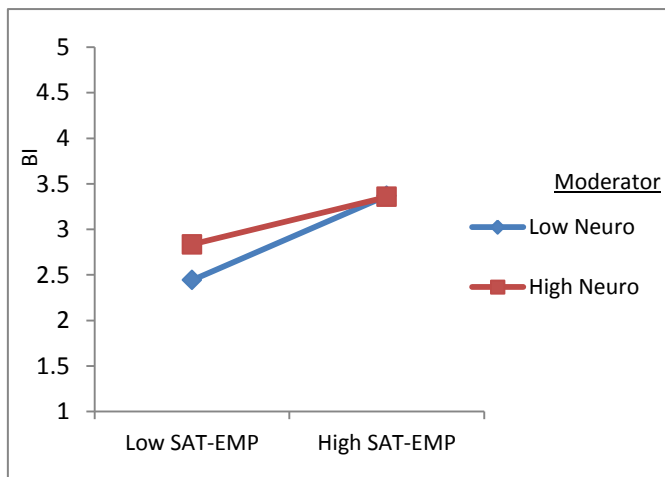
4) Openness to experience strengthen the positive relationship between satisfaction with employee channel performance and behavioural intention.
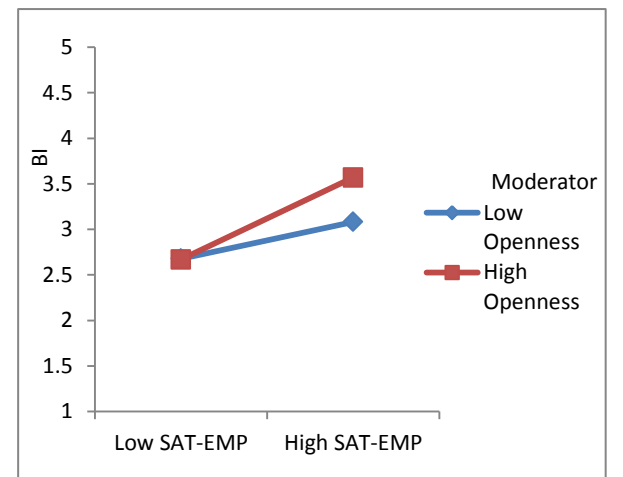
5.4 In summary

This chapter has incorporated the procedures followed in the data screening stage (i.e., checking the accuracy of data file, handling missing data, detecting outliers and testing the underlying assumption of multivariate normality, before conducting a multivariate analysis. The study sample demographics were described and then a reliability test was carried out for all the study indicators as well as the constructs. That was followed by a validity test and confirmatory factor analysis which produced both the measurement and structural models. The data analysis provides support for most of the study's proposed hypotheses, apart from the moderating effects (H5b, H6b and H7) which are hypothesised to influence the relationship between customer satisfaction with an online banking channel's performance and behavioural intention.

Chapter 6: Discussion

6.1 Introduction

The current study is an empirical research of multichannel service retailing and the factors influencing the relationship between customers' satisfaction with service providers' multiple channels and the outcomes of behavioural intention. In the previous data analysis chapter (5), a structural model was produced, illustrated in (figure 5-2), as a result of testing the study propositions presented by the conceptual model in chapter three, section 3.2. This chapter is going to cover discussions regarding the model results. Since, research results have revealed support for most of the proposed hypotheses, these hypotheses as well as the ones rejected and those indicated as non-significant relationships are discussed in more detailed. Table 6-1 provides a summary of the research findings.

This chapter is organised as follows: Section 6.2 discuss findings related to satisfaction and behavioural intention in multichannel service retailing. Section 6.3 addresses the moderating effect of the Big Five model of personality and technology readiness. The chapter is concluded with a summary.

	Hypotheses	Expected Results	Path coefficients (β)	T-value	
There is a positive relationship between satisfaction with a channel employee's performance and behavioural intention.	H1	+	0.326	6.38***	S
There is a positive relationship between SAT-Employee channel performance and SAT- Online channel performance.	H2	+	0.192	3.67***	S
There is a positive relationship between satisfaction with online banking channel performance and behavioural intention.	H3	+	0.095	2.31**	S
Extraversion moderate SAT-Employee and BI.	H4a	-	-0.106	2.05**	S
Neuroticism moderates SAT-Employee and BI.	H5a	-	-0.101	2.35**	S
Openness to Experience moderates SAT-Employee and BI.	H6a	+	0.124	2.13**	S
Extraversion moderates SAT-Online and BI.	H4b	+	0.101	1.90*	S
Neuroticism moderates SAT-Online and BI.	H5b	-	-0.041	1.29	R
Openness to Experience moderates SAT-Online and BI.	H6b	+	0.037	0.94	R
Technology Readiness moderates SAT-Online and BI.	H7	+	-0.012	0.36	R

Table 6-1: Hypotheses and results of the structural model (* S=supported,*R=rejected).

6.2.1 The relationship between customer satisfaction with employee channel performance and behavioural intention:

In chapter two the important role of employee channel performance in influencing customers' satisfaction was highlighted. Thus, the present study hypothesised a positive relationship between customer satisfaction with employee channel performance in multichannel service contexts and behavioural intention (H1). Study parameter estimates yielded (β= 0.326, p< 0.001) indicating the existence of a strong link between satisfaction and behavioural intention, which in this study is the highest among study constructs. The provided support for the aforementioned postulate is in line with previous research in multichannel and service literature such as (Van Bergilin et al., 2006; Van Dolen et al., 2002; Reynolds and Beatty, 1999; Gwinner et al., 1998).

Under the theory of reasoned action (Fishbein and Ajzen, 1975) the results suggest that multichannel customers' hold more positive attitudes about employee channel performance, which is the employee readiness and competency to meet their needs in obtaining the required service the more likely these customers use the channel to buy more service products in the future. Accordingly, customer satisfaction with channel performance is viewed in this study on the basis of attitude-behaviour relationship as an attitude which in turn affects behavioural intention. In other words, satisfaction is a function of behavioural intention. Results illustrate customers' positive experiences gain over time from interacting with the bank employee channel, affect behavioural intention positively (i.e., repeat purchase and remain loyal to the bank). Results illustrate customers' satisfaction gain over time from interacting with the bank employee channel, affect behavioural intention positively (i.e., repeat purchase and remain loyal to the bank).

6.2.2 The relationship between customer satisfaction with online channel performance and behavioural intention:

Customer satisfaction with online channel performance was hypothesized to have a positive relationship with behavioural intention (H2). This is due to the positive experience of the customer's encounter with the channel. That is, the online-banking channel has performed in a satisfactory manner in enabling the customer to carryout the required financial activities. As a consequence, customers would continue to employ the channel for conducting future purchases or activities. As a result, hypothesis H2 was tested and the results support the positive relationship between satisfaction with an online banking channel's performance and behavioural intention (β=.095 and p<.01). The reported positive relationship is inline with other studies in online banking and multichannel literature (Shankar et al., 2003; Methlie and Nysveen, 1999).

However, the relationship reported parameter estimate of β=.095 and p<.01 is considered the lowest in comparison with the above mentioned studies. For example, in Methlie and Nysveen's (1999) study, increasing customer satisfaction with a bank's online channel was found to lead to high affective loyalty and conative loyalty (β=0.33** and β=0.57**) respectively; however, the study was conducted only in the online context. Likewise, Shankar et al.'s (2003) study in multichannel context has revealed that correlation between satisfaction and loyalty are higher in the online channel than the offline (traditional channel). Meanwhile in our study satisfaction with employee channel performance has yield the highest parameter estimate.

Researcher believes that this variation in results could be due to the establishment of the online medium in western countries in comparison with the Middle East, Saudi Arabia in particular. Shankar et al. (2003) conducted a study in the travel industry setting (i.e., customers booking hotel rooms through travel agencies or through hotel websites). Their explanation to the high correlation between overall satisfaction and loyalty is that

online channel provides customers with convenience, speed and access to accurate information to a greater extent than the offline channel. This leads to enhancing customers' loyalty to the service provider.

In contrast, if the online channel failed in delivering the performance customers expected in terms of speed and access and convenience and customers come in to contact with a poor website design and technology failure (Meuter et al., 2000), these factors together with a low quality internet connection and low customer awareness of the benefits gained from using online banking can decrease customers' satisfaction with online channel. In relation to our Saudi banking setting, the weak relationship could be attributed to the fact that internet banking in the gulf region is still in its early stages, as its slow adoption by customers can be observed throughout the region (Khalfan et al., 2006).

In recent study by Garbois et al., (2013) on internet banking in the gulf countries found that the percentages of all the gulf's banking customers who are active online are only 18%. Moreover, empirical studies on Saudi customers by Alsomali et al. (2009) found internet connection and awareness have an effect on customer adoption of online banking. Almogbil (2005) has reported that almost 63% of Saudi customers use dial up service to connect to the internet (Alsomali et al., 2009). It is believed that all these factors combined could be the cause of the observed low yet significant findings reported by this study.

6.2.3 The relationship between customer satisfaction with employee performance and online channel performance (channel synergies):

After, confirming the positive hypothesized relationships between customer satisfaction with banks' various channels, it has been hypothesized that customers' satisfaction with a bank's traditional channel performance has a positive relationship with the SST based online channel. This was formulated on the basis that positive customer experience accumulated over time from consuming service products through traditional channels will lead to transforming this attitude to the bank's alternative channels (i.e., online banking channel). This relationship was found to be significant, providing support for hypothesis H3.

In line with prior research (Yang et al., 2011; Bhatnagar et al., 2003), the implication of our positive findings are ($\beta=.19$***, $p< .001$). On the one hand, it shows that customers who are satisfied with the employee performance and efficiency overall tend to extent this satisfaction to retail banks' on-line channel; on the other, the perception that the online channel will succeed in delivering the desirable service products in satisfactory manor similar to the employee channel as the two channels belong to the same bank and are sharing the same brand and products. This is achieved by confirming the existence of employee and online-banking channel synergy and is a result of the fact that customers employ their bank's various channels in a complementary fashion in order to obtain the desired services (Verhoef et al., 2007; Balasubramanian et al., 2005; Wallace et al., 2004).

For example, if a customer needs to discuss his/her options for a loan or mortgage in more detail, this can be arranged through a visit to the bank's branch and by speaking with an employee about this more complicated service. But, if a customer wants to make bill payments, print account statements or make transactions between two accounts, then the bank's online channel is used to carry out these activities without the

need for leaving their office or house at any time of the day or night. This has being referred to as routine and non-routine services by Van Birgelen (2006). Verhoef et al. (2007) indicated that although customers' satisfaction with one channel can increase the intention to use the other channel; yet, some times these relationships could result in negative cross-channel synergies. However, this study's positive results indicate that the way in which customers utilize these off-line and online channels does not result in channel conflict/dissynergies, which confirms the existences of channel synergy.

6.2.4 The moderating effects of extraversion on the relationship between customer satisfaction with employee performance, online banking performance and behavioural intention.

The current research has hypothesized that the extraversion trait may have a positive moderating effect on the relationship between employee channel performance and behavioural intention H4a, and that it may have the same effect on satisfaction with e-banking performance and behavioural intention H4b. The justification behind these two formulas, as mentioned in chapter 3 (section.3.4.1), is that this trait represents the combination of sociability and interaction with other's as well as seeking change and the need for motives (Piedmont, 1998), in such a way that extravert individuals are regarded to be talkative, self-confident and dynamic. Also, this character exhibits confidence in their skills in dealing with complex systems and they are open to embracing new ways of doing things (Picazo-Vela et al., 2010; Roccas et al., 2002).

However, the empirical results showed a negative impact of extraversion (β=-0.106, p<.01) on satisfaction with employee channel and behavioural intention, which resulted in weakening the existing positive relationship. This unexpected result could be due to the nature of the multichannel setting where customers utilise a ray of different channels, both traditional and new innovative one. The context of pervious research

examining the extraversion personality trait were either offline (i.e., fast food store) (Bove and Mitizifiris, 2007) or online (i.e., online shopping and library self-check out) (Saleem et al., 2011; Bosnjak et al., 2007) but not both. Consequently, the negative score obtained from the study sample of Saudi bank customers could serve as an indication of the sample exhibiting low extraversion personality trait in that customers' did not place any emphasis on the social aspect of their personality while purchasing financial products through the employee channel.

This point of view was found to support H4b. Thus, hypothesis findings have revealed a positive moderating effect of this character ($\beta = 0.101$, $p<. 05$) which leads to the enhancement of the positive relationship between customers' satisfaction with the online channel's performance and behavioural intention. The displayed positive interaction effects confirm that extravert individuals are confident in their ability to use computer systems in shopping, and in our case conducting online banking related activities. In addition, our result is consistent with the previous research of Devaraj et al.(2008) where the moderating effect of extraversion between subjective norm and intention to use technology was supported ($\beta=0.15$, $p<.05$).

6.2.5 The moderating effects of neuroticism on the relationship between customer satisfaction with employee channel performance, online banking channel performance and behavioural intention.

In H5a and H5b, the personality trait neuroticism was hypothesized as having a negative moderating effect on the relationship between satisfaction with employee performance and behavioural intention as well as satisfaction with online banking performance and behavioural intention. In addition, neurotic individuals are generally anxious and easily frustrated, and they struggle to deal with new technologies (Devaraj et al., 2008; Roccas et al., 2002; Piedmont, 1998). Results have provided a partial support for personality

trait neuroticism as being a negative influence of customer satisfaction. The scoring on this trait (β= -0.101, p <.01) was found to weaken the relationship between satisfaction with employee performance and behavioural intention. In terms of online banking, the moderating effect was not significant.

6.2.6 The moderating effects of openness to experience on the relationship between customer satisfaction with employee performance and behavioural intention, and online banking performance and behavioural intention.

H6a and H6b are related to openness to experience the final trait from the big five, which has been incorporated into the study model. It was hypothesized as having a positive moderating effect on the relationship between the employee channel's performance and behavioural intention, and the online banking channel performance and behavioural intention. Openness to experience is associated with self-service technology and technology acceptance. People who are characterised as being open to experience are creative, curious and embrace change and open to new ideas (Devaraj et al., 2008; Nov and Ye, 2008; Roccas et al., 2002).

Similar to neuroticism, the study results have provided partial support for openness to experience. Results indicated the existence of a positive interaction (β= 0.124, p<.01) leading the openness to experience trait to strengthen the relationship between satisfaction with employee performance and behavioural intention (H6a). The significant positive result with the employee channel could be due to the fact that these customrs are more conventional and less open to new ways of condcuting banking. Nevertheless, openness to experience displayed a non-significnat moderating effect on the relationship between the online banking channel and behavioural intention (H6b).

6.2.7 The moderating effects of technology readiness on the relationship between customer satisfaction with online banking performance and behavioural intention:

The final hypotheses (H7) proposed that technology readiness has a moderating effect on satisfaction with online banking and behavioural intention. This construct is viewed as an overall mental disposition, which is mainly used to predict individual's willingness to use and adopt technologies (Parasurman, 2000). Nevertheless, the positive moderating effect of TR on customers' satisfaction with the online channel's performance and behavioural intentions was not detected. Not only that, but TR has displayed a negative direction for this relationship. Although this hypothesis was rejected, a possible explanation for the unexpected direction could be due to optimistic and innovative customers been critical in their evaluation of the e-banking channel performance. For example, innovative individuals are more aware of the newest technologies available and when their banks online channels does not perform or does not provide the expected service this would have a negative impact on their satisfaction with the channel and their behavioural intention as a result, especially with the Saudi banking context, where this channel has not reached a mature stage yet (Garbois et al., 2013; Khalfan et al., 2006).

6.3 Summary

This chapter has provided further discussion on the study findings reported in chapter five. In the process chapter, the justification of supported, non-significant and rejected proposed hypothesis has been displayed in great detail. The results have revealed that customer satisfaction with employee channels' performance has a positive impact on behavioural intention. Likewise, customers' satisfaction with online channels' performance was found to have a positive impact on behavioural intention.

Furthermore, research findings have illustrated that the personality trait extraversion has a negative effect on satisfaction with employee performance and behavioural intention, which leads to weakening this relationship. At the same time extraversion was found having positive moderating effect on customer satisfaction with online bank channel performance and behavioural intention; leading to strengthening this relationship.

In addition, neuroticism was found to have a negative effect on the relationship between satisfaction with employee channels' performance and behavioural intention, leading to weakening the positive existing relationship. Similarly, openness to experience was found having a moderating effect between satisfaction with employee channel performance and behavioural intention. However, openness to experience effect was positive, which resulted in strengthening this relationship. Surprisingly, technology readiness was rejected and no support for its moderation effects was found.

Chapter 7: Conclusion

7.1 Introduction

This chapter highlights the present research contribution to the multichannel service literature and provides directions for future research. To do so, the chapter starts with an overview of the current research. This is followed by a summary of research findings which is categorised into existing findings and new findings, which represent the core contribution of the research. Furthermore, the theoretical and managerial implications of the research contribution are discussed as well as the study limitations. Recommendations for future research are discussed and the chapter ends with an overall summary.

7.2 Overview of the research

The rapid growth of the internet has encouraged companies to adopt multichannel strategies which enable them to link their traditional and electronic channels in order to reach more customers. However, companies can only benefit from employing these strategies to increase their profits and market shares by not only focusing on their distribution channels but also by focusing on understanding who their customers are. That is because success in today's market demands taking a customer-centric approach. Despite the fact that individual personality has an impact on customer attitudes and behaviour, this phenomenon did not receive much attention in the multichannel literature.

Consequently, the current thesis has undertaken an examination of the moderating effects that customers' personality traits have on satisfaction with multichannel performance and behavioural intention. In particular, the research focuses on the moderating effects of the five-factor model of personality on bank's traditional and technology-based channel, as well as the moderating effects of customers' technology

readiness on their satisfaction with banks' online channel. That is, customers' satisfaction with multichannel performance is viewed as an accumulated satisfaction, which is formed from the customers' positive evaluation of a number of encounters with the bank over a period of time. In turn this accumulated satisfaction leads to customers' exhibiting positive behavioural intention (i.e., staying loyal and repeat purchases).

Chapter one of this thesis has presented an introduction of the research problem, objectives, the methodological approach used for data collection and analysis, and the expected theoretical and managerial contributions. Chapter two has covered an extensive literature review of multichannel and personality literature. Chapter three embodied the research's theoretical background and developed the conceptual model together with the proposed hypotheses. Chapter four presented the research's quantitative methodology. Chapter five illustrated findings obtained from testing both measurement and structural models. Chapter six covers discussion of the results in relation to supporting or rejecting the proposed hypotheses. Finally, chapter seven provides the research conclusion, where contribution and theoretical and managerial implications are discussed, research limitations were highlighted, and suggestions for future research were proposed.

7.3 Summary of research findings

In the following paragraphs a summary of findings are provided. The findings are divided into two sections. The first section includes findings tested and supported by previous research and already existent in the literature. The second section presents the research contribution where relationships are tested and results are obtained for the first time.

7.3.1 Confirmation of existing findings

7.3.1.1 Customer satisfaction with employee channels' performance and behavioural intention:

The relationship that customers' satisfaction with employee performance has on repeat purchase and staying loyal to the firm has been identified in previous research and has been supported. Consistent with the positive relationship reported by the literature, this research findings have confirmed this relationship, as customers satisfaction with the bank's employee competency and efficacy were found to generate positive behavioural intentions ($\beta= 0.32$, $p<.01$).

7.3.1.2 Customer satisfaction with online channel performance and behavioural intention:

Online banking is considered to be a relatively new channel which has the advantage of using the internet medium so that customers can conduct their banking activities at any time and from anywhere. Previous research has revealed the existence of a positive relationship between customers' satisfaction with online channel performance and behavioural intention. Similarly, this research has confirmed the existence of positive relationship between satisfaction with online and behavioural intention, in such that satisfied customers stay with their banks and do not switch even when alternatives are available ($\beta= 0.095$, $p<.01$).

7.3.1.3 Channel synergy between customer satisfaction with employee performance and online banking performance:

The extent to which a firm is implementing multichannel synergies can be assessed through the way in which customers use these channels, i.e. whether they use traditional channels alongside online channels or whether the usage of one channel leads to alienating the other. If indeed traditional channels are integrated with online channels, and a customer is satisfied with the performance of the traditional channel, then customers are expected to extend his/her satisfaction from the conventional channel to the new online channel. This is especially the case when the online channel belongs to the same service provider or retailer. Our study has confirmed (β=0.19, P<.01) the positive influence customer satisfaction with employee performance has on their satisfaction with online channels, as the online banking appeared to be providing complementary support to the traditional employee channel.

7.3.2 New findings

This is first to attempt to test moderation effects of personality on satisfaction and behavioural intention. Although, previous research has incorporated personality traits in different contexts (i.e., providing online review, online banking), no study has examined the moderating effect of the chosen personality traits in a multichannel context where offline and online channels are utilized. More precisely, this research is the first to test some traits from the big-five model of personality, namely extraversion, neuroticism and openness to experience, and technology readiness in the multichannel banking service context. Not only that, but also in a developing country such as kingdom of Saudi Arabia.

7.3.2.1 The interaction effect of extraversion on customers' satisfaction with multiple service channels and behavioural intention:

Extravert customers expressed a negative attitude towards satisfaction with employee performance; indicating that personal interaction with the employee is not the main driver for their channel satisfaction. In contrast, these customers had a preferable attitude toward the online channel as they expressed positive attitude towards the online channel. This indicates that extravert customers are confident in their abilities to use computer systems in performing their financial actives online.

7.3.2.2 The interaction effect of neuroticism on customers' satisfaction with multiple service channels and behavioural intention:

Neurotic customers have displayed a negative attitude towards the banks' multiple channels, yet the only negative moderating effect on satisfaction with employee channel performance and behavioural intention was significant. This illustrates customers exhibiting emotional instability and results are in line with neuroticism reflecting in general negative reactions towards life and work (i.e., Devaraj et al., 2008).

7.3.2.3 The interaction effect of openness to experience on customers' satisfaction with multiple service channels and behavioural intention:

Openness to experience was found to moderate satisfaction with employee channel performance significantly. No moderating effects were detected between customers' satisfaction with online channels and their behavioural intention. However, this positive interaction effect on satisfaction with employee channel performance is an evidence of customers exhibiting attitudes of resistance to change and that they prefer conventional ways of conducting their financial activities.

7.4 Theoretical implication

The main objectives of this research were to fill the gap in the multichannel literature; firstly by, re-testing the established relationship between customers' satisfaction and behavioural intention in multichannel service. Previous studies which examined the relationship between multichannel customer satisfaction and consequential behavioural intentions are rare, with only a few exceptions (i.e., Van Birgelen et al., 2006; Shankar et al., 2003). Secondly, the objectives were achieved by investigating the significance of the interaction effects of certain personality traits on multichannel customers' behavioural intention, in particular, extraversion, neuroticism, openness to experience and technology readiness, especially as there is evidence within the marketing literature of the impact of psychological factors (i.e., variety seeking) on satisfaction and loyalty (Homburg and Giering, 2001).

As a result, this study is the first to test the relationship between customers' satisfaction with multichannel performance and behavioural intention in the context of Saudi Arabia, a developing country, which provides an opportunity for extending and generalising previously reported findings as well as exploring new relationships. The research has emphasised that customers' overall satisfaction with banks multiple channels performance (i.e., employee and online channels) leads to preferable behaviours such as staying loyal. In addition, the research has confirmed that the positive experiences that customers gain from different encounters with the employee (traditional) channel is transformed to the online channel, which is an indication of the channels' integration as they perform alongside each other. This research emphasises that Saudi bank customers are "multichannel shoppers" as they combine traditional and technology-based channels to conduct their banking activities.

This work has revealed the important role of the Big Five model of personality as moderators of the relationship between customers' satisfaction with multiple channels and behavioural intention which were tested for the first time in a multichannel setting. More precisely, extraversion and neuroticism were found to have a negative moderation effect on the link between satisfaction with banks' employee channel's performance and behavioural intention on one hand. On the other, individuals who possess the attribute of openness to experience were found to exhibit more positive attitudes towards employee channels' performance and behavioural intention, which indicated that people who are less open to experience are more conventional.

In relation to the link between online banking channels' performance and behavioural intention, the only personality trait that was found having a positive relationship was extraversion. In addition, research has provided further support for the notion that extravert individuals are more confident in their computer skills.

7.5 Managerial implication

Based on this study's findings, the following recommendations are proposed to aid multichannel service managers in forming strategies and tactics to retain existing customers and succeed in attracting potential new ones by investigating the moderating effects of customers' personality traits on the relationship between satisfaction with multichannel performance and behavioural intention. This study provides support to the reported results in the literature on the relationship between customer satisfaction and various aspects of behavioural intention consequences such as loyalty, repeat purchase and positive word of mouth (Shankar et al., 2003; Homburg and Giering, 2001; Szymanski and Henard, 2001). As a result, mangers should take customers satisfaction and the outcomes of their behavioural intention into consideration while monitoring the performance of their multichannel system.

The study has revealed that customers' satisfaction with traditional channels has a strong cross-channel synergising impact on their satisfaction with online channels, which is consistent with the current research findings (Yang et al., 2011; Van Birgelen et al., 2006; Wallace et al., 2004). For a multichannel bank manager, this is an indication that customers are using online banking channel to complement employee channel and that satisfaction with the employee channel shift to the online channel. Managers are encouraged to maintain the level of performance in the traditional channel as customers will extend their positive evaluation and experience to the online channel. A crucial step in maintaining and making improvement to the employees performance is achieved by managers investing resources in training their service employee with emphasize on the importance of customers interaction during the service consumption in elevating positive attitudes towards the service provides online channel. Not only that but managers can use the traditional channel to advertise and promote the advantages and benefits of using the online channel.

Finally, managers should consider customers' differences when developing strategies which aim, to improve customers' satisfaction with multichannel performance. This is because achieving a successful multichannel system is not entirely dependent on the channel alone, but the core element of today's marketing models is the customer (i.e., they are customer-centric) (Neslin et al., 2006; Schoenbachler and Gordon, 2002). Moreover, customers' attitudes and behaviours are largely influenced by their personalities as previous research has shown (Saleem et al., 2011; Hurley, 1998; Perivn and John, 1997). This is especially the case with personality traits, as the study has shown that personality plays a fundamental role in enhancing or weakening customers' satisfaction/dissatisfaction with the banks' various channels. Furthermore, alienating customers' personality traits from such strategies would make assessing the success within the multichannel system difficult. Additionally, acknowledging the fact that

customers' satisfaction with the service provider channels and their behavioural intention is influenced by their personalities should motivate managers to develop programs that enable allocating the suitable service packages to their customers according to their personalities and through the channels, they are mostly comfortable to obtain financial services. The ability to deliver tailored services is more likely to result in more satisfied customers and ultimately higher revenues.

7.6 Research limitations

The current study has a number of limitations, which need to be addressed before generalising research findings and suggesting directions for future research. Firstly, the study data were collected from customers' of one developing country (Kingdom of Saudi Arabia) and from one industry (i.e., financial banking), which place constraints on generalising the study results, however this study can be replicated in countries which have similar economies to Saudi Arabia such as the Gulf countries. Moreover, employing the current research model in the financial sector alone was planned to avoid problems which arise from the effects of different industries (e.g., Van Dolen et al., 2002); nevertheless generalisation can be enhanced by extending the study model to other industries, such as airlines.

Secondly, the research is a cross-sectional study and like all the cross-sectional studies the nature of the study does not allow the causal relationships between model constructs to be established. Nevertheless, longitudinal studies are more appropriate for testing constructs causality and making inferences (Cohen et al., 2007). Thirdly, technology readiness was found not having any moderating effect on customer satisfaction with the online channel's performance. The current study is consistent with previous research (i.e., Lilijander et al., 2006; Parasuraman, 2000) which have reported facing similar problems with extracting the whole four dimensions, and since the scale was borrowed

and adopted in a different culture from the previous study, this problem appears to be constant. Therefore, more work is required to investigate the reliability of the other dimensions (i.e., discomfort and insecurity).

In addition, there were reliability related problems with the short version of NEO-PI the personality trait scales extraversion and neuroticism, which have resulted in dropping many items, although the short version was preferred over the full length scales in order to increase the response rate and to avoid participant fatigue. However, future researchers are advised to use more reliable scales such as the 240-item scale by Costa and McCrae (1992) or the 100-item scale by Goldberg's (1992) (John and Srivastava, 1999).

7.7 Direction for future research

The current study provides some suggestions for future research. This study has incorporated selected personality traits form the Big Five model to moderate the relationship between customer satisfaction with service providers' multichannel channels performance and behavioural intention. Hence, the selected traits did not fully moderate relationships between the different channels and behavioural intention as hypothesised. The non-significant moderating effects could be due to the single item scale employed to measure customer satisfaction with online channel performance. Consequently, a validated multi-item scale should be employed to operationalize satisfaction with online channel performance.

The current study has examined the moderating effects of some traits from the five-factor model. Future research could incorporate the whole five factor model (i.e., extraversion, neuroticism, consciousness, agreeableness and openness to experience) obtained by reliable measures, to see the impact of the whole model on the relationship between multichannel customers' satisfaction and their behavioural intention.

Accordingly obtaining more significant results would make it possible to draw clearer customer segments depending on a wider range of personality types, captured by the Big Five model.

This study's findings reveal the need for more comprehensive multichannel models. One way to achieve this is by adding more channels to the model such as ATM and mobile banking. In addition, future research could extend the conceptual model by adding to customer satisfaction with online banking channel performance factors which are specific to technology usage and adoption such as perceived usefulness and perceived ease of use which are also key factors in the technology acceptance model (TAM) developed by Davis et al. (1989). TAM is widely employed by studies investigating the usage of online banking and the two factors were found to have a significant impact on the usage of internet banking (e.g., Yoon and Steege, 2012; Alsomali et al., 2009).

Another way of extending the model could be by investigating the impact of customers' trust in the service provider as determinant of customer's satisfaction with the service provider's multiple channels, especially given that previous research has highlighted the important role of customers' trust as an antecedent for satisfaction with the service in both offline and online channels (Falk et al., 2007; Ranaweera et al., 2005).

In addition, researchers could consider examining the impact of product type on different customers' satisfaction with the service provider's multiple channels. Previous studies have found that customers' choice shifts from an online channel to the traditional channels in the purchasing stage of the shopping process depending on the level of product complexity (i.e., Frambach et al., 2007; Van Birling et al., 2006). That is to say, complex service products such as home mortgages are associated with the

banks offline channel. It would be interesting to see if this holds for different personality types.

7.8 Summary

This chapter was generated in order to highlight the main features of this thesis. For this purpose the chapter started with an introduction (7.1), followed by an overview of the thesis (7.2). The overview was intended to highlight the objectives of the current study which examined the influence of customers' different personality traits on their satisfaction with multichannel service providers and the consequential behavioural intention. Therefore, the moderating effects of some traits from the five-factor model of personality were tested.

Next, in section (7.3) research findings were divided into two groups; with the first group presenting the previously tested relationships in the multichannel literature and study findings which have provided support for the three main hypotheses. Meanwhile, the second group consists of seven new relationships that were empirically tested; out of the seven, four were supported and two were found to have non-significant effects and one was rejected. Section (7.5) has discussed the theoretical contribution of the research to the multichannel literature. This was followed by section (7.6) which covered the managerial implications of the study for multichannel service providers. A discussion of the research limitation was highlighted in section (7.7), in particular, issues such as cross-sectional design and scales reliabilities. Finally, some directions for future research was provided in section (7.8).

Appendix 1

Study questionnaire

UNIVERSITY OF LEEDS

Dear customer:

I am a postgraduate student in the Marketing division at Leeds University Business School. I am carrying out a survey to assess Saudi banks customers' satisfaction with the performance of banks various service channels. The information provided will be used to improve banks provisions and services based upon your evaluation of the performance of banks channels. The completion of this questionnaire is appreciated and takes maximum 15 minutes to complete. I would like to emphasize that your participant in this study is voluntary. Therefore, you can choose not to take part or withdraw at anytime you like without any explanation. Returning of this questionnaire indicates your consent to participate in this study. Please be assured that your responses will be held in the strictest confidence and data will only be used in an aggregate form.

Thank you in advance.

Afrah Alsomali

PhD researcher in Leeds University Business School

Maurice Keyworth Building, The University of Leeds,

Leeds, LS2 9JT

Mobile: +447535686880, E-mail: bnaya@leeds.ac.uk

Q.1 In the following questions we would like to know how you feel about the performance of the different channels of your Bank.

1.1 To what extent are you satisfied or dissatisfied with your bank's employee performance *(Please circle one answer for each statement).*

	Very dissatisfied	Dissatisfied	Neutral	Satisfied	Very satisfied
1- The extent to which the employees make clear appointments.	1	2	3	4	5
2- Speed at which the promised information is provided.	1	2	3	4	5
3- The friendliness of the employees.	1	2	3	4	5
4- The competence of the bank employees.	1	2	3	4	5
5- The time taken by the employees to serve me.	1	2	3	4	5
6- The attention the bank employees pay to me.	1	2	3	4	5
7- The advice especially adjusted to my personal situation.	1	2	3	4	5
8- The extent to which the bank employees show empathy.	1	2	3	4	5
9- The readiness of the employees to help me.	1	2	3	4	5
10- The politeness of the employees.	1	2	3	4	5

1.2 How satisfied are you with your bank's internet banking performance? *(Please circle your answer).*

Very dissatisfied…………..……………………….………….……….…… 1

Dissatisfied………………..…………………..………………..……. 2

Neutral…………………………………………………………….... 3

Satisfied ………….…………………………………………………….. 4

Very satisfied …………………………………………………….……… 5

Q.2 In this question we would like to know what you think about your bank. Please indicate to what extent, do you agree or disagree with the following statements. *(Circle one answer for each statement).*

	Strongly disagree	*Disagree*	*Neither agree nor disagree*	*Agree*	*Strongly agree*
1- I consider my bank to be my first choice for all financial services that I need.	1	2	3	4	5
2- If I want to open a savings account or to get a loan in the future, I probably will do it at my bank.	1	2	3	4	5
3- In about five years, I expect that I will still consider my bank to be the most important bank.	1	2	3	4	5
4- I recommend my bank to someone who seeks my advice.	1	2	3	4	5
5- I encourage friends and relatives to do business with my bank.	1	2	3	4	5
6- I say positive things about my bank to other people.	1	2	3	4	5

Q. 3In this question we would like to know which of the following statements best describe your personality. *(Please circle one answer for each statement).*

3.1

	Very inaccurate	*Inaccurate*	*Neutral*	*Accurate*	*Very accurate*
1- I am the life of the party.	1	2	3	4	5
2- I don't talk a lot.	1	2	3	4	5
3- I feel comfortable around people.	1	2	3	4	5
4- I keep in the background.	1	2	3	4	5
5- I start conversations.	1	2	3	4	5
6- I have little to say.	1	2	3	4	5
7- I talk to a lot of different people at parties.	1	2	3	4	5
8- I don't like to draw attention to myself.	1	2	3	4	5
9- I don't mind being the centre of attention.	1	2	3	4	5
10- I am quiet around strangers.	1	2	3	4	5

3.2

	Very inaccurate	*Inaccurate*	*Neutral*	*Accurate*	*Very accurate*
1- I get stressed easily.	1	2	3	4	5
2- I am relaxed most of the time.	1	2	3	4	5
3- I worry about things.	1	2	3	4	5
4- I seldom feel unhappy.	1	2	3	4	5
5- I am easily disturbed.	1	2	3	4	5
6- I get upset easily.	1	2	3	4	5
7- I change my mood a lot.	1	2	3	4	5
8- I have frequent mood swings.	1	2	3	4	5
9- I get irritated easily.	1	2	3	4	5
10- I often feel unhappy.	1	2	3	4	5

3.3

	Very inaccurate	*Inaccurate*	*Neutral*	*Accurate*	*Very accurate*
1- I frequently feel highly creative.	1	2	3	4	5
2- I am imaginative.	1	2	3	4	5
3- I appreciate art.	1	2	3	4	5
4- I enjoy beauty more than others.	1	2	3	4	5
5- I find novel solutions.	1	2	3	4	5

	Very inaccurate	*Inaccurate*	*Neutral*	*Accurate*	*Very accurate*

6- I am more original than others.	1 2 3 4 5	

Q.4 In this question we would like to know your opinion about using technology. Please indicate to what extent, do you agree or disagree with the following statements *(Circle one answer for each statement).*

	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
1- Technology gives me more control over my daily life.	1	2	3	4	5
2-Technology gives me more freedom of mobility.	1	2	3	4	5
3- Products and services that use the newest technologies are much more convenient to me.	1	2	3	4	5
4- Other people come to me for advice on new technologies.	1	2	3	4	5
5- In general, I am among the first in my circle of friends to acquire new technology when it appears.	1	2	3	4	5
6- I can usually figure out new high-tech products and services without help from others.	1	2	3	4	5
7- Technical support lines are not helpful because they don't explain things in terms that I understand.	1	2	3	4	5
8- When I get technical support from a provider of a high-tech product or service, I sometimes feel as if I have being taken advantage of by someone who knows more than I do.	1	2	3	4	5
9- It is embarrassing when I have trouble with a high tech gadgets while people are watching	1	2	3	4	5
10- I do not feel confident doing business with a place that can only be reached online.	1	2	3	4	5
11- I do not consider it safe giving out a credit card number over a computer.	1	2	3	4	5
12- Any business transaction I do electronically should be confirmed later with something in writing.	1	2	3	4	5

Q.5 Customer demographics:

Gender:

1- Male   2-Female

Age:

1- Younger than 21   2- 21-30   3- 31-40   4- 41-50

5-Older than 50

Education:

1- Less than high school   4-Bachelor Degree
2- High school   5-Post-graduate Degree
3- Diploma

Income:

1- Less than SR 4,000
2- SR 4,000-SR 6,000
3- SR6,001-SR8,000
4- SR8,001-SR10,000
5- SR10,001-15,000
6- More than SR15,000

Appendix 2

Scales reliabilities

Scale: Behavioural Intention scale

Case Processing Summary

		N	%
	Valid	380	100.0
Cases	Excluded[a]	0	.0
	Total	380	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.863	.862	6

Item Statistics

	Mean	Std. Deviation	N
BI1	3.56	1.070	380
BI2	3.48	1.129	380
BI3	3.47	1.136	380
BI4	3.46	1.073	380
BI5	3.49	1.127	380
BI6	3.58	1.036	380

Inter-Item Correlation Matrix

	BI1	BI2	BI3	BI4	BI5	BI6
BI1	1.000	.533	.540	.432	.417	.405
BI2	.533	1.000	.626	.602	.402	.307
BI3	.540	.626	1.000	.675	.510	.482
BI4	.432	.602	.675	1.000	.658	.497
BI5	.417	.402	.510	.658	1.000	.574
BI6	.405	.307	.482	.497	.574	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
BI1	17.48	18.979	.590	.390	.851
BI2	17.56	18.252	.632	.504	.844
BI3	17.57	17.328	.741	.580	.824
BI4	17.58	17.679	.752	.628	.822
BI5	17.55	18.085	.654	.521	.840
BI6	17.46	19.352	.570	.398	.854

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
21.04	25.618	5.061	6

Scale: Satisfaction with employee performance scale

Case Processing Summary

		N	%
Cases	Valid	380	100.0
	Excluded[a]	0	.0
	Total	380	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.862	.861	10

Item Statistics

	Mean	Std. Deviation	N
SATE1	3.28	.954	380
SATE2	3.37	.937	380
SATE3	3.60	.987	380
SATE4	3.51	.984	380
SATE5	3.21	1.032	380
SATE6	3.38	1.118	380
SATE7	3.31	1.053	380
SATE8	3.18	1.036	380
SATE9	3.39	1.058	380
SATE10	3.46	1.020	380

Inter-Item Correlation Matrix

	SATE1	SATE2	SATE3	SATE4	SATE5	SATE6	SATE7	SATE8	SATE9
SATE1	1.000	.495	.362	.262	.330	.255	.279	.170	.304
SATE2	.495	1.000	.421	.359	.404	.323	.260	.233	.318
SATE3	.362	.421	1.000	.492	.411	.442	.286	.296	.418
SATE4	.262	.359	.492	1.000	.425	.435	.246	.256	.333
SATE5	.330	.404	.411	.425	1.000	.578	.423	.339	.344
SATE6	.255	.323	.442	.435	.578	1.000	.588	.514	.484
SATE7	.279	.260	.286	.246	.423	.588	1.000	.515	.466
SATE8	.170	.233	.296	.256	.339	.514	.515	1.000	.597
SATE9	.304	.318	.418	.333	.344	.484	.466	.597	1.000
SATE10	.219	.239	.381	.375	.318	.383	.453	.538	.620

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
SATE1	30.41	40.253	.429	.306	.860
SATE2	30.32	39.639	.495	.357	.855
SATE3	30.09	38.308	.578	.396	.849
SATE4	30.18	38.972	.522	.359	.853
SATE5	30.48	37.754	.594	.423	.847
SATE6	30.31	36.018	.677	.560	.840
SATE7	30.39	37.620	.590	.455	.848
SATE8	30.51	37.881	.580	.481	.848
SATE9	30.30	36.834	.654	.534	.842
SATE10	30.23	37.915	.589	.479	.848

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
33.69	46.351	6.808	10

Scale: Extraversion scale

Case Processing Summary

		N	%
Cases	Valid	380	100.0
	Excluded[a]	0	.0
	Total	380	100.0

a. Listwise deletion based on all variables in the

procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.671	.673	6

Item Statistics

	Mean	Std. Deviation	N
Extr1	2.90	1.016	380
Extr3	3.28	.966	380
Extr5	3.16	1.004	380
Extr7	3.02	1.076	380
Extr9	3.03	1.042	380
Extr10	3.14	1.124	380

Inter-Item Correlation Matrix

	Extr1	Extr3	Extr5	Extr7	Extr9	Extr10
Extr1	1.000	.367	.238	.120	.192	.125
Extr3	.367	1.000	.317	.231	.218	.159
Extr5	.238	.317	1.000	.427	.329	.160
Extr7	.120	.231	.427	1.000	.416	.170
Extr9	.192	.218	.329	.416	1.000	.369
Extr10	.125	.159	.160	.170	.369	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Extr1	15.63	11.506	.313	.160	.658
Extr3	15.25	11.168	.403	.207	.629
Extr5	15.37	10.619	.470	.262	.606
Extr7	15.51	10.530	.431	.273	.618
Extr9	15.51	10.282	.498	.292	.594
Extr10	15.39	11.168	.302	.143	.666

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
18.53	14.698	3.834	6

Scale: Neuroticism Scale

Case Processing Summary

		N	%
Cases	Valid	380	100.0
	Excluded[a]	0	.0
	Total	380	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.820	.819	6

Item Statistics

	Mean	Std. Deviation	N
Neur5	2.84	1.097	380
Neur6	2.63	1.112	380
Neur7	2.96	1.101	380
Neur8	3.00	1.146	380
Neur9	2.82	1.116	380
Neur10	2.68	1.099	380

Inter-Item Correlation Matrix

	Neur5	Neur6	Neur7	Neur8	Neur9	Neur10
Neur5	1.000	.579	.432	.327	.401	.222
Neur6	.579	1.000	.499	.435	.412	.335
Neur7	.432	.499	1.000	.692	.517	.250
Neur8	.327	.435	.692	1.000	.598	.337
Neur9	.401	.412	.517	.598	1.000	.418
Neur10	.222	.335	.250	.337	.418	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Neur5	14.09	17.416	.524	.383	.804
Neur6	14.31	16.593	.616	.444	.784
Neur7	13.97	16.316	.662	.549	.774
Neur8	13.93	16.043	.660	.568	.774
Neur9	14.11	16.341	.646	.454	.778
Neur10	14.25	18.371	.407	.217	.827

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
16.93	23.415	4.839	6

Scale: Openness to experience scale

Case Processing Summary

		N	%
	Valid	380	100.0
Cases	Excluded[a]	0	.0
	Total	380	100.0

a. Listwise deletion based on all variables in the
procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.833	.832	6

Item Statistics

	Mean	Std. Deviation	N
OpenEx1	3.29	1.061	380
OpenEx2	3.17	1.076	380
OpenEx3	3.47	1.107	380
OpenEx4	3.44	1.089	380
OpenEx5	3.37	1.063	380
OpenEx6	3.24	1.063	380

Inter-Item Correlation Matrix

	OpenEx1	OpenEx2	OpenEx3	OpenEx4	OpenEx5	OpenEx6
OpenEx1	1.000	.568	.392	.314	.283	.252
OpenEx2	.568	1.000	.588	.512	.355	.361
OpenEx3	.392	.588	1.000	.643	.507	.373
OpenEx4	.314	.512	.643	1.000	.578	.452
OpenEx5	.283	.355	.507	.578	1.000	.613
OpenEx6	.252	.361	.373	.452	.613	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
OpenEx1	16.69	17.461	.468	.333	.833
OpenEx2	16.81	16.047	.642	.510	.798
OpenEx3	16.51	15.570	.680	.526	.790
OpenEx4	16.54	15.690	.680	.525	.790
OpenEx5	16.61	16.238	.627	.512	.802
OpenEx6	16.73	16.903	.538	.405	.819

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
19.98	22.738	4.768	6

Scale: TR (Optimism)

Case Processing Summary

		N	%
	Valid	380	100.0
Cases	Excluded[a]	0	.0
	Total	380	100.0

a. Listwise deletion based on all variables in the

procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.828	.829	3

Item Statistics

	Mean	Std. Deviation	N
TR1	3.77	.971	380
TR2	3.75	.977	380
TR3	3.70	.994	380

Inter-Item Correlation Matrix

	TR1	TR2	TR3
TR1	1.000	.707	.533
TR2	.707	1.000	.611
TR3	.533	.611	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
TR1	7.44	3.129	.690	.516	.759
TR2	7.47	2.957	.752	.577	.695
TR3	7.52	3.237	.619	.394	.828

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
11.22	6.439	2.537	3

Scale: TR (Innovativeness)

Case Processing Summary

		N	%
Cases	Valid	380	100.0
	Excluded[a]	0	.0
	Total	380	100.0

a. Listwise deletion based on all variables in the

procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.788	.787	3

Item Statistics

	Mean	Std. Deviation	N
TR4	3.31	1.077	380
TR5	3.13	1.106	380
TR6	3.06	1.076	380

Inter-Item Correlation Matrix

	TR4	TR5	TR6
TR4	1.000	.609	.452
TR5	.609	1.000	.594
TR6	.452	.594	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
TR4	6.19	3.795	.596	.384	.745
TR5	6.37	3.364	.706	.499	.623
TR6	6.44	3.835	.584	.366	.757

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
9.50	7.454	2.730	3

Appendix 3

Harman's single factor test

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.060	29.423	29.423	2.060	29.423	29.423
2	1.270	18.139	47.562			
3	1.032	14.740	6 2.302			
4	.828	11.824	74.126			
5	.689	9.837	83.963			
6	.589	8.409	92.372			
7	.534	7.628	100.000			

Extraction Method: Principal Component Analysis.

References

ADELSON, J. L., & MCCOACH, D. B. (2010). Measuring the mathematical attitudes of elementary students: The effects of a 4-point or 5-point Likert-type scale. *Educational and psychological measurement*, *70*(5), 796-807.

AGARWAL, R. & PRASAD, J. 1999. Are individual differences germane to the acceptance of new information technologies? *Decision sciences,* 30**,** 361-391.

AHUJA, M., GUPTA, B. & RAMAN, P. 2003. An empirical investigation of online consumer purchasing behavior. *Communications of the ACM,* 46**,** 145-151.

AIKEN, L. 2002. *Attitudes and related psychosocial constructs: Theories, assessment, and research*, Sage Publications, Incorporated.

AILAWADI, K. L., NESLIN, S. A. & GEDENK, K. 2001. Pursuing the value-conscious consumer: store brands versus national brand promotions. *The Journal of Marketing***,** 71-89.

AJZEN, I. & FISHBEIN, M. 1980. Understanding attitudes and predicting social behaviour.

AL-ASHBAN, A. A. & BURNEY, M. A. 2001. Customer adoption of tele-banking technology: the case of Saudi Arabia. *International Journal of Bank Marketing,* 19**,** 191-201.

AL-HAWARI, M., HARTLEY, N. & WARD, T. 2005. Measuring banks' automated service quality: a confirmatory factor analysis approach. *Marketing Bulletin,* 16**,** 1-19.

Al-JASSER, M. 2002. *the development of the financial sector to achieve better economic growth* [online]. Available from:http://www.sama.gov.sa/News/Pages/News1424032602.aspx [Accessed 30 December 2011]

AL-SOMALI, S. A., GHOLAMI, R. & CLEGG, B. 2009. An investigation into the acceptance of online banking in Saudi Arabia. *Technovation,* 29**,** 130-141.

ALBA, J., LYNCH, J., WEITZ, B., JANISZEWSKI, C., LUTZ, R., SAWYER, A. & WOOD, S. 1997. Interactive home shopping: consumer, retailer, and manufacturer incentives to participate in electronic marketplaces. *The Journal of Marketing***,** 38-53.

ALBARRACÍN, D. E., JOHNSON, B. T. & ZANNA, M. P. 2005. *The handbook of attitudes*, Lawrence Erlbaum Associates Publishers.

ALEXANDROV, A. 2010. Characteristics of single-item measures in Likert scale format. *The Electronic Journal of Business Research Methods*, *8*(1), 1-12.

ANDERSON, J. C. & GERBING, D. W. 1988. Structural equation modeling in practice: A review and recommended two-step approach. *Psychological bulletin,* 103**,** 411-423.

ANSARI, A., MELA, C. F. & NESLIN, S. A. 2008. Customer channel migration. *Journal of Marketing Research,* 45**,** 60-76.

ARBORE, A. & BUSACCA, B. 2009. Customer satisfaction and dissatisfaction in retail banking: Exploring the asymmetric impact of attribute performances. *Journal of Retailing and Consumer Services,* 16**,** 271-280.

BAGOZZI, R. P. 1992. The self-regulation of attitudes, intentions, and behavior. *Social Psychology Quarterly***,** 178-204.

BAGOZZI, R. P. & YI, Y. 1988. On the evaluation of structural equation models. *Journal of the Academy of Marketing Science,* 16**,** 74-94.

BAGOZZI, R. P. & YI, Y. 1989. The degree of intention formation as a moderator of the attitude-behavior relationship. *Social Psychology Quarterly***,** 266-279.

BAGOZZI, R. P. & YI, Y. 1991. Multitrait-multimethod matrices in consumer research. *Journal of Consumer Research***,** 426-439.

BAKER, M. J. 1991. *Research for marketing.* Macmillan.

BALASUBRAMANIAN, S., RAGHUNATHAN, R. & MAHAJAN, V. 2005. Consumers in a multichannel environment: Product utility, process utility, and channel choice. *Journal of Interactive Marketing,* 19**,** 12-30.

BARRICK, M. R. & MOUNT, M. K. 1991. The big five personality dimensions and job performance: a meta-analysis. *Personnel psychology,* 44**,** 1-26.

BAUMGARTNER, H., & HOMBURG, C. 1996. Applications of structural equation modeling in marketing and consumer research: a review. *International Journal of Research in Marketing*, *13*(2), 139-161.

BAUMGARTNER, H. 2002. Toward a personology of the consumer. *Journal of Consumer Research,* 29**,** 286-292.

BHATNAGAR, N., LURIE, N. & ZEITHAML, V. 2003. Reasoning about online and offline service experiences: the role of domain-specificity in the formation of service expectations. *Advances in Consumer Research,* 30**,** 383-384.

BITNER, M. J., BROWN, S. W. & MEUTER, M. L. 2000. Technology infusion in service encounters. *Journal of the Academy of marketing science,* 28**,** 138-149.

BITNER, M. J. & HUBBERT, A. R. 1994. Encounter satisfaction versus overall satisfaction versus quality. *Service quality: New directions in theory and practice***,** 72-94.

BLAIKIE, N. W. H. 2000. *Designing social research.* Polity press Cambridge.

BLUNCH,N.2008.*Introduction to structural equation modeling using SPSS and AMOS*.SAGE Publications Ltd, London.

BOßOW-THIES, S. & ALBERS, S. 2010. Application of PLS in marketing: content strategies on the internet. *Handbook of Partial Least Squares.* Springer.

BOLLEN,K.1989. *Structural equations with latent variables.* John Wiley and Sons, Inc, Canada.

BOLTON, R. N., LEMON, K. N. & VERHOEF, P. C. 2004. The theoretical underpinnings of customer asset management: a framework and propositions for future research. *Journal of the Academy of marketing science,* 32**,** 271-292.

BORDENS, K. S. and B. B. ABBOTT. 2002. *Research design and methods: A process approach.* McGraw-Hill.

BOSNJAK, M., GALESIC, M. & TUTEN, T. 2007. Personality determinants of online shopping: Explaining online purchase intentions using a hierarchical approach. *Journal of Business Research,* 60**,** 597-605.

*BOUMA,G ATKINSON,G and DIXON,B.1995.A handbook of social science research.*OXFOR University press, New York.

BOVE, L. & MITZIFIRIS, B. 2007. Personality traits and the process of store loyalty in a transactional prone context. *Journal of Services Marketing,* 21**,** 507-519.

BROWN, T. J., MOWEN, J. C., DONAVAN, D. T. & LICATA, J. W. 2002. The customer orientation of service workers: personality trait effects on self-and supervisor performance ratings. *Journal of marketing research***,** 110-119.

BROWN, S. 1987. Drop and collect surveys: a neglected research technique? *Marketing Intelligence & Planning,* 5**,** 19-23.

BRYMAN,A.2001. *Business research methods.* OXFORD University Press, New York.

BRYMAN, A. & CRAMER, D. 2011. *Quantitative data analysis with IBM SPSS 17, 18 & 19: A guide for social scientists*, Routledge.

BRYNJOLFSSON, E. & SMITH, M. D. 2000. Frictionless commerce? A comparison of Internet and conventional retailers. *Management Science,* 46**,** 563-585.

BURKE, R. 2002. Technology and the customer interface: what consumers want in the physical and virtual store. *Journal of the Academy of Marketing Science,* 30**,** 411-432.

BYRNE,B.M.2001.Structural equation modeling with AMOS basic concepts, application , and programming. New Jersey: Lawrence Erlbaum Association ,Inc

CARSON, D. GILMORE, A. PERRY, CH. and GRONHAUG, K. 2001. *Qualitative marketing research.* SAGE Publication Ltd.

CHIANG, K. & DHOLAKIA, R. 2003. Factors driving consumer intention to shop online: an empirical investigation. *Journal of Consumer Psychology***,** 177-183.

CHIN, W. W. 2010. How to write up and report PLS analyses *IN*: VINZI, V.E. CHIN,W.W.,HENSELER,J.& WAND,H (eds.) *Handbook of partial least squares: Concepts, methods and applications*. Springer, (PP.655-690).

CHIN, W. W., MARCOLIN, B. L. & NEWSTED, P. R. 2003. A partial least squares latent variable modeling approach for measuring interaction effects: Results from a Monte Carlo simulation study and an electronic-mail emotion/adoption study. *Information Systems Research,* 14**,** 189-217.

COHEN,L. MANION,L and MARRISON.2007.*Research method in education.*6th Eidition. Routlege.

CORTIÑAS, M., CHOCARRO, R. & VILLANUEVA, M. L. 2010. Understanding multi-channel banking customers. *Journal of Business Research,* 63**,** 1215-1221.

CORTINA, J. M. 1993. What is coefficient alpha? An examination of theory and applications. *Journal of applied psychology,* 78**,** 98-98.

COSTA JR, P. T., MCCRAE, R. R., & DYE, D. A. 1991. Facet scales for agreeableness and conscientiousness: a revision of the NEO personality inventory. *Personality and Individual Differences*, *12*(9), 887-898.

COSTA JR, P. T., & MCCRAE, R. R. 1995. Domains and facets: Hierarchical personality assessment using the Revised NEO Personality Inventory. *Journal of personality assessment*, *64*(1), 21-50.

COSTA, P. T., and R. MCCRAE.1996.Toward a new generation of personality theories: Theoretical contexts for the five-factor model. IN Wiggins,J.S. (ed.) *The Five Factor Model Of Personality theoretical prospective* New York. Guilford Press, pp.51-87.

COSTA, P. T. & MCCRAE, R. R. 1988. Personality in adulthood: a six-year longitudinal study of self-reports and spouse ratings on the NEO Personality Inventory. *Journal of personality and social Psychology,* 54**,** 853.

CRAIG,C.S and DOUGLAS,S.P.2000.*International marketing research*.2nd.Eidition.Wiley.

CURRAN, J. M. & MEUTER, M. L. 2005. Self-service technology adoption: comparing three technologies. *Journal of Services Marketing,* 19**,** 103-113.

CHISNALL, P.M.2001.Marketing *research*.6th ed. London: McGraw-Hill.

CHURCHILL, G. A. 1999. *Marketing research: Methodological foundations*. 7th ed. Forth Worth: Dryden Press.

DABHOLKAR, P. A. 1996. Consumer evaluations of new technology-based self-service options: an investigation of alternative models of service quality. *International Journal of Research in Marketing,* 13**,** 29-51.

DABHOLKAR, P. A. & BAGOZZI, R. P. 2002. An attitudinal model of technology-based self-service: moderating effects of consumer traits and situational factors. *Journal of the Academy of marketing science,* 30**,** 184-201.

DAVIS, T. R. 1999. Different service firms, different core competencies. *Business Horizons,* 42**,** 23-33.

DAWES,J. 2008. Do data characteristics change according to the number of scale points used? An experiment using 5 point, 7 point and 10 point scales. *International Journal of Market Research*, *51*(1).

DAY, R. L. 1984. Modeling choices among alternative responses to dissatisfaction. *Advances in consumer research,* 11**,** 496-499.

DEVARAJ, S., EASLEY, R. F. & CRANT, J. M. 2008. Research Note—How Does Personality Matter? Relating the Five-Factor Model to Technology Acceptance and Use. *Information Systems Research,* 19**,** 93-105.

DHOLAKIA, R. R., ZHAO, M. & DHOLAKIA, N. 2005. Multichannel retailing: a case study of early experiences. *Journal of Interactive Marketing,* 19**,** 63-74.

DHOLAKIA, U. M., KAHN, B. E., REEVES, R., RINDFLEISCH, A., STEWART, D. & TAYLOR, E. 2010. Consumer behavior in a multichannel, multimedia retailing environment. *Journal of Interactive Marketing,* 24**,** 86-95.

DIAMANTOPOULOS,A. and SIGUAW,J.A.2000. *Introducing Lisrel*. London: SAGE Publication Ltd

DIGMAN, J. M. 1990. Personality structure: Emergence of the five-factor model. *Annual review of psychology,* 41**,** 417-440.

DILLON, W. R., T. J. MADDEN and N. H. FIRTLE. 1993. *Essentials of marketing research.* Irwin Homewood, IL.

DROLET, A. L., & MORRISON, D. G. (2001). Do we really need multiple-item measures in service research?. *Journal of Service Research*, *3*(3), 196-204.

DURKIN, M., JENNINGS, D., MULHOLLAND, G. & WORTHINGTON, S. 2008. Key influencers and inhibitors on adoption of the internet for banking. *Journal of Retailing and Consumer Services,* 15**,** 348-357.

EDWARDS,A.L.and KENNEY,K.C.1967.Acomparison of the Thurstone and Likert techniques of attitude scale construction.IN:M.FISHBEIN, (ed.).*Readings in attitude theory and measurement.*John Wiley and Sons, Inc.

ENDERS, C. K. & BANDALOS, D. L. 2001. The relative performance of full information maximum likelihood estimation for missing data in structural equation models. *Structural equation modeling,* 8**,** 430-457.

FABER, R. J. & O'GUINN, T. C. 1989. Classifying compulsive consumers: advances in the development of a diagnostic tool. *Advances in consumer research,* 16**,** 738-744.

FALK, T., SCHEPERS, J., HAMMERSCHMIDT, M. & BAUER, H. H. 2007. Identifying cross-channel dissynergies for multichannel service providers. *Journal of Service Research,* 10**,** 143-160.

FISHBEIN, M. & AJZEN, I. 1975. *Belief, attitude, intention and behavior: An introduction to theory and research.*

FOREMAN,E.K.1991.*Survey sampling principles.*Marcel Dekker,Inc,New York.

FORNELL, C. 1992. A national customer satisfaction barometer: the Swedish experience. *The Journal of Marketing***,** 6-21.

FORNELL, C. & LARCKER, D. F. 1981. Evaluating structural equation models with unobservable variables and measurement error. *Journal of marketing research***,** 39-50.

FRAMBACH, R. T., ROEST, H. C. & KRISHNAN, T. V. 2007. The impact of consumer internet experience on channel preference and usage intentions across the different stages of the buying process. *Journal of Interactive Marketing,* 21**,** 26-41.

FUCHS, C., & DIAMANTOPOULOS, A. (2009). Using single-item measures for construct measurement in management research. *Die Betriebswirtschaft*, *69*(2), 195.

GARBOIS, C., ARDILL, S., VONPOCK, A., GOURP, C., MASSA, A.2013.Online banking in the GCC [online].Available from:https://www.atkearney.com/en_GB/paper/-/asset_publisher/dVxv4Hz2h8bS/content/online-banking-in-the-gcc/10192 **[**Accessed on 28 August 2013].

GEFEN, D., STRAUB, D. W., & BOUDREAU, M. C. 2000. Structural equation modelling and regression guidelines for research practice. *Communication Association for Information Systems.7(4)*.1-79

GILL, J., and JOHNSON, P.1997. *Research methods for managers*. 2 nd.Eidition. Paul Chapman Publishing Ltd.

GIESE, J. L. & COTE, J. A. 2000. Defining consumer satisfaction. *Academy of marketing science review,* 1**,** 1-22.

GRICE, J. W. 2001. Computing and evaluating factor scores. *Psychological Methods*, *6*(4), 430.

GROSOF,M.S and SARDY, H. 1985. *A research primer for the social and behavioral science.* Academic Press, Orland.

GUPTA, A., SU, B.-C. & WALTER, Z. 2004. An empirical study of consumer switching from traditional to electronic channels: A purchase-decision process perspective. *International Journal of Electronic Commerce,* 8**,** 131-161.

GWINNER, K. P., GREMLER, D. D. & BITNER, M. J. 1998. Relational benefits in services industries: the customer's perspective. *Journal of the Academy of marketing science,* 26**,** 101-114.

HAENLEIN, M., & KAPLAN, A. M. 2004. A beginner's guide to partial least squares analysis. *Understanding statistics*, *3*(4), 283-297.

HAIR, JF. BABIN,B.MONEY, A.H & SAMOUEL,P.2003. Essential of Business Research Methods. Leyh Publishing LLC.USA.

HAIR, J. F., RINGLE, C. M., & SARSTEDT, M. 2011. PLS-SEM: Indeed a silver bullet. *The Journal of Marketing Theory and Practice*, *19*(2), 139-152.

HAIR, J. F., SARSTEDT, M., RINGLE, C. M. & MENA, J. A. 2012. An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the Academy of Marketing Science,* 40**,** 414-433.

HAIR,J.ANDERSON,R.TATHAM,R and BLACK,W.M.2010.*Multivariate data analysis a global perspective.*7TH. Edition .Pearson Education, Inc, New Jersey.

HALE, J. L., HOUSEHOLDER, B. J. & GREENE, K. L. 2002. The theory of reasoned action. *The persuasion handbook: Developments in theory and practice***,** 259-286.

HAMBURGER, Y. A. & BEN-ARTZI, E. 2000. The relationship between extraversion and neuroticism and the different uses of the Internet. *Computers in Human Behavior,* 16**,** 441-449.

HENSELER, J., RINGLE, C. M., & SINKOVICS, R. R. 2009. The use of partial least squares path modeling in international marketing. *Advances in international marketing*, *20*(1), 277-319.

HENSELER, J. & FASSOTT, G. 2010. Testing moderating effects in PLS path models: An illustration of available procedures. *Handbook of partial least squares.* Springer.

HINKIN, T. R. 1998. A brief tutorial on the development of measures for use in survey questionnaires. *Organizational research methods*, *1*(1), 104-121.

HOGAN, J., HOGAN, R. & BUSCH, C. M. 1984. How to measure service orientation. *Journal of Applied Psychology,* 69**,** 167.

HOMBURG, C. & GIERING, A. 2001. Personal characteristics as moderators of the relationship between customer satisfaction and loyalty—an empirical analysis. *Psychology and Marketing,* 18**,** 43-66.

HUDSON, L. A. & OZANNE, J. L. 1988. Alternative ways of seeking knowledge in consumer research. *Journal of Consumer Research***,** 508-521.

HULIN, C., NETEMEYER, R. & CUDECK, R. 2001. Can a reliability coefficient be too high? *Journal of Consumer Psychology,* 10**,** 55-58.

HURLEY, R. F. 1998. Customer service behavior in retail settings: A study of the effect of service provider personality. *Journal of the Academy of Marketing Science,* 26**,** 115-127.

IBEH, K., BROCK, J. K. U. & ZHOU, Y. J. 2004. The drop and collect survey among industrial populations: theory and empirical evidence. *Industrial Marketing Management,* 33**,** 155-165.

INMAN, J. J., SHANKAR, V. & FERRARO, R. 2004. The roles of channel-category associations and geodemographics in channel patronage. *Journal of Marketing***,** 51-71.

INERNET WORLD STATS 2012. *Internet users in the Middle East internet and the world* [online]. Available from: http://www.internetworldstats.com/stats5.htm [Accessed 3 September 2013].

JAMAL, A. & NASER, K. 2002. Customer satisfaction and retail banking: an assessment of some of the key antecedents of customer satisfaction in retail banking. *International Journal of Bank Marketing,* 20**,** 146-160.

JARVIS, C. B., MACKENZIE, S. B. & PODSAKOFF, P. M. 2003. A critical review of construct indicators and measurement model misspecification in marketing and consumer research. *Journal of Consumer Research,* 30**,** 199-218.

JEDDAH MUNICIPALITY 2013. *About Jeddah City* [online]. Available from: http://www.jeddah.gov.sa/Jeddah/AboutJeddah/geo.php(accessed [Accessed 11 September 2013].

JOHN,O.P & SRIVASTAVA,S. 1999. The big five trait taxonomy: History, measurement, and theoretical perspectives IN: Pervin, L. and John,O. (ed.) *Handbook of personality: Theory and research.2* nd. New York: The Guilford Press,pp.102-138.

JOHANSON, G. A. & BROOKS, G. P. 2009. Initial Scale Development: Sample Size for Pilot Studies. *Educational and Psychological Measurement*.

JOHNSON, D. S. 2008. Beyond trial: Consumer assimilation of electronic channels. *Journal of Interactive Marketing,* 22**,** 28-44.

JOLLIFFE, I.1986. *Principal component analysis.* Springer-Verlag.

JUDGE, T. A., HIGGINS, C. A., THORESEN, C. J. & BARRICK, M. R. 2006. The big five personality traits, general mental ability, and career success across the life span. *Personnel psychology,* 52**,** 621-652.

JUDGE, T. A., HELLER, D. & MOUNT, M. K. 2002. Five-factor model of personality and job satisfaction: a meta-analysis. *Journal of Applied Psychology,* 87**,** 530.

KAJALUOTO,H., MALTTILA,M., and PENTO,T.2002. Factors underlying attitude formation towards online banking in Finland. *International Journal of Bank Marketing, 20*(6), 261 - 272.

KEEN, C., WETZELS, M., DE RUYTER, K. & FEINBERG, R. 2004. E-tailers versus retailers: Which factors determine consumer preferences. *Journal of Business Research,* 57**,** 685-695.

KHALFAN, A. M. S., ALREFAEI, Y. S. & AL-HAJERY, M. 2006. Factors influencing the adoption of internet banking in Oman: a descriptive case study analysis. *International Journal of Financial Services Management,* 1**,** 155-172.

KIM, M.-S. & HUNTER, J. E. 1993a. Relationships Among Attitudes, Behavioral Intentions, and Behavior A Meta-Analysis of Past Research, Part 2. *Communication research,* 20**,** 331-364.

KIM, M. S. & HUNTER, J. E. 1993b. Attitude-behavior relations: A meta-analysis of attitudinal relevance and topic. *Journal of Communication,* 43**,** 101-142.

KINNEAR,T.C and TAYLOR,J.R.1996.*Marketing research:An applied approach.*McGraw-Hill.

KLINE, P. 1994. An easy guide to factor analysis. New York: Routledge

KOLLMANN, T., KUCKERTZ, A. & KAYSER, I. 2012. Cannibalization or synergy? Consumers' channel selection in online–offline multichannel systems. *Journal of Retailing and Consumer Services,* 19**,** 186-194.

KOLODINSKY, J. M., HOGARTH, J. M. & HILGERT, M. A. 2004. The adoption of electronic banking technologies by US consumers. *International Journal of Bank Marketing,* 22**,** 238-259.

KONUŞ, U., VERHOEF, P. C. & NESLIN, S. A. 2008. Multichannel shopper segments and their covariates. *Journal of Retailing,* 84**,** 398-413.

KUMAR, V. & VENKATESAN, R. 2005. Who are the multichannel shoppers and how do they perform?: Correlates of multichannel shopping behavior. *Journal of Interactive Marketing,* 19**,** 44-62.

KWON, W. S. & LENNON, S. J. 2009a. Reciprocal effects between multichannel retailers' offline and online brand images. *Journal of Retailing,* 85**,** 376-390.

KWON, W. S. & LENNON, S. J. 2009b. What induces online loyalty? Online versus offline brand images. *Journal of Business Research,* 62**,** 557-564.

LANGFORD, P. H. 2003. A one-minute measure of the Big Five? Evaluating and abridging Shafer's (1999a) Big Five markers. *Personality and Individual Differences,* 35**,** 1127-1140.

LEE, H., CHOI, S. Y. & KANG, Y. S. 2009. Formation of e-satisfaction and repurchase intention: Moderating roles of computer self-efficacy and computer anxiety. *Expert Systems with Applications,* 36**,** 7848-7859.

LICHTENSTEIN, S. & WILLIAMSON, K. 2006. Understanding consumer adoption of internet banking: an interpretive study in the Australian banking context. *Journal of Electronic Commerce Research,* 7**,** 50-66.

LILJANDER, V., GILLBERG, F., GUMMERUS, J. & VAN RIEL, A. 2006. Technology readiness and the evaluation and adoption of self-service technologies. *Journal of Retailing and Consumer Services,* 13**,** 177-191.

LIN, C. H., SHIH, H. Y. & SHER, P. J. 2007. Integrating technology readiness into technology acceptance: The TRAM model. *Psychology & Marketing,* 24**,** 641-657.

LIN, J.-S. C. & HSIEH, P.-L. 2006. The role of technology readiness in customers' perception and adoption of self-service technologies. *International Journal of Service Industry Management,* 17**,** 497-517.

LINDELL, M. K. & WHITNEY, D. J. 2001. Accounting for common method variance in cross-sectional research designs. *Journal of applied psychology,* 86**,** 114.

LISKA, A. E. 1974. Emergent issues in the attitude-behavior consistency controversy. *American Sociological Review***,** 261-272.

LISKA, A. E. 1984. A critical examination of the causal structure of the Fishbein/Ajzen attitude-behavior model. *Social Psychology Quarterly***,** 61-74.

MACKENZIE, S. B., PODSAKOFF, P. M. & JARVIS, C. B. 2005. The problem of measurement model misspecification in behavioral and organizational research and some recommended solutions. *Journal of applied psychology,* 90**,** 710.

MACCALLUM, R. C. and J. T. AUSTIN. 2000. Applications of structural equation modeling in psychological research. *Annual review of psychology,* **51**(1), pp.201-226.

MADDEN, T. J., ELLEN, P. S. & AJZEN, I. 1992. A comparison of the theory of planned behavior and the theory of reasoned action. *Personality and social psychology Bulletin,* 18**,** 3-9.

MÄGI, A. W. 2003. Share of wallet in retailing: the effects of customer satisfaction, loyalty cards and shopper characteristics. *Journal of Retailing,* 79**,** 97-106.

MAHDI, M. O. S. 2012. Usage Differences in Electronic Banking Services Between Saudis and Non-Saudis in Saudi Commercial Banks. *China-USA Business Review,* 11**,** 75-87.

MALHOTRA,N &.PETERSON,K. 2006. *Basic Marketing Research: A Decision-Making Approach*. Pearson Education, Inc., Upper Saddle River, New Jersey.

MALHOTRA,N.K & BIKERS,D.F.2003. *Marketing research: An applied approach*. 2^(nd) ed. Education Limited.

MANRAI, L. A. & MANRAI, A. K. 2007. A field study of customers' switching behavior for bank services. *Journal of Retailing and Consumer Services,* 14**,** 208-215.

MARSH, H. W. 1998. Pairwise deletion for missing data in structural equation models: Nonpositive definite matrices, parameter estimates, goodness of fit, and adjusted sample sizes. *Structural Equation Modeling: A Multidisciplinary Journal,* 5**,** 22-36.

MATZLER, K., FAULLANT, R., RENZL, B., & LEITER, V.2005. The relationship between personality traits (extraversion and neuroticism), emotions and customer self-satisfaction. *Innovative Marketing*, *1*(2), 32-39.

MCCRAE, R. R. & COSTA JR, P. T. 1999. A five-factor theory of personality IN: Pervin, L. and John,O. (ed.) *Handbook of personality: Theory and research.2* nd. New York: The Guilford Press,pp. 139-153.

MCCRAE, R. R. & COSTA JR, P. T. 1997. Personality trait structure as a human universal. *American psychologist,* 52**,** 509.

MCCRAE, R. R. & JOHN, O. P. 1992. An introduction to the five-factor model and its applications. *Journal of personality,* 60**,** 175-215.

MCELROY, J. C., HENDRICKSON, A. R., TOWNSEND, A. M. & DEMARIE, S. M. 2007. Dispositional factors in internet use: personality versus cognitive style. *MIS Quarterly,* 31**,** 809-820.

METHLIE, L. B. & NYSVEEN, H. 1999. Loyalty of on-line bank customers. *Journal of Information Technology,* 14**,** 375-386.

MEUTER, M. L., OSTROM, A. L., ROUNDTREE, R. I. & BITNER, M. J. 2000. Self-service technologies: understanding customer satisfaction with technology-based service encounters. *The Journal of Marketing***,** 50-64.

MILLER, M. B. 1995. Coefficient alpha: A basic introduction from the perspectives of classical test theory and structural equation modeling.

MITTAL, V. & KAMAKURA, W. A. 2001. Satisfaction, repurchase intent, and repurchase behavior: investigating the moderating effect of customer characteristics. *Journal of Marketing Research***,** 131-142.

MONTOYA-WEISS, M. M., VOSS, G. B. & GREWAL, D. 2003. Determinants of online channel use and overall satisfaction with a relational, multichannel service provider. *Journal of the Academy of Marketing Science,* 31**,** 448-458.

MOORADIAN, T. A. & OLVER, J. M. 1997. "I can't get no satisfaction:" The impact of personality and emotion on postpurchase processes. *Psychology and Marketing,* 14**,** 379-393.

MOWEN, J. C. & SPEARS, N. 1999. Understanding compulsive buying among college students: A hierarchical approach. *Journal of Consumer Psychology,* 8**,** 407-430.

MUTHÉN, B. 1984. A general structural equation model with dichotomous, ordered categorical, and continuous latent variable indicators. *Psychometrika,* 49**,** 115-132.

NADKARNI, S. & GUPTA, R. 2007. A task-based model of perceived website complexity. *MIS quarterly,* 31**,** 501-524.

NESLIN, S. & SHANKAR, V. 2009. Key issues in multichannel customer management: current knowledge and future directions. *Journal of Interactive Marketing,* 23**,** 70-81.

NESLIN, S. A., GREWAL, D., LEGHORN, R., SHANKAR, V., TEERLING, M. L., THOMAS, J. S. & VERHOEF, P. C. 2006. Challenges and opportunities in multichannel customer management. *Journal of Service Research,* 9**,** 95-112.

NOV, O. & YE, C. Personality and technology acceptance: personal innovativeness in IT, openness and resistance to change. Hawaii International Conference on System Sciences, Proceedings of the 41st Annual, 2008. IEEE, 448-448.

NUNNALLY,J.1967.*Psychometric theory. McGARW-Hill.*

OLIVER, R. L. 1981. Measurement and evaluation of satisfaction processes in retail settings. *Journal of Retailing*.

OLIVER, R. L. 1997. Satisfaction: A behavioral perspective on the consumer. New York: McGraw-Hill.

OLIVER, R. L. & SWAN, J. E. 1989. Equity and disconfirmation perceptions as influences on merchant and product satisfaction. *Journal of Consumer Research*, 372-383.

PARASURAMAN, A. 2000. Technology Readiness Index (TRI) a multiple-item scale to measure readiness to embrace new technologies. *Journal of Service Research,* 2**,** 307-320.

PARASURAMAN, A., ZEITHAML, V. A. & BERRY, L. L. 1988. Servqual. *Journal of Retailing,* 64**,** 12-40.

PETER, J. P. 1981. Construct validity: a review of basic issues and marketing practices. *Journal of marketing research***,** 133-145.

PETERSON, R. A., BALASUBRAMANIAN, S. & BRONNENBERG, B. J. 1997. Exploring the implications of the Internet for consumer marketing. *Journal of the Academy of Marketing Science,* 25**,** 329-346.

PETERSON, R. A. & WILSON, W. R. 1992. Measuring customer satisfaction: fact and artifact. *Journal of the Academy of Marketing Science,* 20**,** 61-71.

PICAZO-VELA, S., CHOU, S. Y., MELCHER, A. J. & PEARSON, J. M. 2010. Why provide an online review? An extended theory of planned behavior and the role of Big-Five personality traits. *Computers in Human Behavior,* 26**,** 685-696.

PIEDMONT, R. L. 1998. *The revised NEO Personality Inventory: Clinical and research applications*, Plenum Press.

PIKKARAINEN, T., PIKKARAINEN, K., KARJALUOTO, H. & PAHNILA, S. 2004. Consumer acceptance of online banking: an extension of the technology acceptance model. *Internet research,* 14**,** 224-235.

PROCTOR, T .2003 . *Essentials of Marketing Research.* Prentice Hall

PODSAKOFF, P. M., MACKENZIE, S. B., LEE, J.-Y. & PODSAKOFF, N. P. 2003. Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of applied psychology,* 88**,** 879.

PODSAKOFF, P. M. & ORGAN, D. W. 1986. Self-reports in organizational research: Problems and prospects. *Journal of management,* 12**,** 531-544.

PRICE, L. L., ARNOULD, E. J. & TIERNEY, P. 1995. Going to extremes: managing service encounters and assessing provider performance. *The Journal of Marketing***,** 83-97.

RAYKOV, T. and G. A. MARCOULIDES. 2000. A method for comparing completely standardized solutions in multiple groups. *Structural equation modeling,* **7**(2), pp.292-308.

RAYPORT, J. F. & SVIOKLA, J. J. 1994. Managing in the Marketspace. *Harvard Business Review,* 72**,** 141-141.

REINARTZ, W., HAENLEIN, M., & HENSELER, J. 2009. An empirical comparison of the efficacy of covariance-based and variance-based SEM. *International Journal of research in Marketing*, *26*(4), 332-344.

REYNOLDS, K. E. & BEATTY, S. E. 1999. Customer benefits and company consequences of customer-salesperson relationships in retailing. *Journal of Retailing,* 75**,** 11-32.

RINGLE, C. M., WENDE, S. & WILL, S. 2005. SmartPLS 2.0 (M3) Beta, Hamburg. *Available in http://www. smartpls. de*.

ROBSON,C.2011.*Real world research*.3rd. Edition. John Wiley and Sons Ltd. United Kingdom.

ROBSON,C.1993.*Real world researsch: A Resource for social scientists and practitioner-researchers.* Blackwell Publishing.

ROCCAS, S., SAGIV, L., SCHWARTZ, S. H. & KNAFO, A. 2002. The big five personality factors and personal values. *Personality and social psychology Bulletin,* 28**,** 789-801.

ROSSITER, J. R. (2002). The C-OAR-SE procedure for scale development in marketing. *International journal of research in marketing*, *19*(4), 305-335.

SALEEM, H., BEAUDRY, A. & CROTEAU, A.-M. 2011. Antecedents of computer self-efficacy: A study of the role of personality traits and gender. *Computers in Human Behavior,* 27**,** 1922-1936.

SANDBERG, J. 2005. How do we justify knowledge produced within interpretive approaches? *Organizational Research Methods,* **8**(1), pp.41-68.

SARANTAKOS,S. 1993. *Social research*. Macmillan Education Australia.

SAUDI ARABIA MONETORY AGENCY .2013. *SAMA functions* [online]. Available from: http://www.sama.gov.sa/sites/samaen/AboutSAMA/Pages/SAMAFunction.aspx [Accessed 3 September 2013].

SAUDI ARABIA-ITU. 2003. *Information and Telecommunication Technology in Saudi Arabia*[online].Available from: http://www.itu.int/dms_pub/itu-s/md/.../S03-WSISPC3-C-0025!!MSW-E.doc [accessed 3 September 2013].

SAUER, P. L. & DICK, A. 1993. Using moderator variables in structural equation models. *Advances in consumer research,* 20**,** 637-640.

SAUNDERS, M., LEWIS, P. & THORNHILL, A .2000. *Research methods for business students.*2nd ed. Pearson Education Limited.

SAUNDERS, M., LEWIS, P. & THORNHILL, A .2009. *Research methods for business students.*5th ed. Harlow: Financial Times Prentice Hall.

SCHOENBACHLER, D. D. & GORDON, G. L. 2002. Multi-channel shopping: understanding what drives channel choice. *Journal of Consumer Marketing,* 19**,** 42-53.

SCHRÖDER, H. & ZAHARIA, S. 2008. Linking multi-channel customer behavior with shopping motives: An empirical investigation of a German retailer. *Journal of Retailing and Consumer Services,* 15**,** 452-468.

SCHUMACKER, R. E. and R. G. LOMAX. 2004. *A beginner's guide to structural equation modeling.* Lawrence Erlbaum.

SEIDERS, K., VOSS, G. B., GREWAL, D. & GODFREY, A. L. 2005. Do satisfied customers buy more? Examining moderating influences in a retailing context. *Journal of Marketing***,** 26-43.

SHANKAR, V., SMITH, A. K. & RANGASWAMY, A. 2003. Customer satisfaction and loyalty in online and offline environments. *International Journal of Research in Marketing,* 20**,** 153-175.

SHARMA, S.1996. Applied multivariate techniques. New York: John Wiley and Sons, Inc.

SHEPPARD, B. H., HARTWICK, J. & WARSHAW, P. R. 1988. The theory of reasoned action: A meta-analysis of past research with recommendations for modifications and future research. *Journal of Consumer Research***,** 325-343.

SHIM, S. & DRAKE, M. F. 1990. Consumer intention to utilize electronic shopping: the Fishbein behavioral intention model. *Journal of Direct Marketing,* 4**,** 22-33.

SHIM, S., EASTLICK, M. A., LOTZ, S. L. & WARRINGTON, P. 2001. An online prepurchase intentions model: The role of intention to search: Best Overall Paper Award—The Sixth Triennial AMS/ACRA Retailing Conference, 2000☆ 11☆ Decision made by a panel of Journal of Retailing editorial board members. *Journal of Retailing,* 77**,** 397-416.

SIMON, F. & USUNIER, J.-C. 2007. Cognitive, demographic, and situational determinants of service customer preference for personnel-in-contact over self-service technology. *International Journal of Research in Marketing,* 24**,** 163-173.

SOUSA, R. & VOSS, C. A. 2006. Service quality in multichannel services employing virtual channels. *Journal of Service Research,* 8**,** 356-371.

SOHAIL, M. S. & SHAIKH, N. M. 2007. Internet banking and quality of service: perspectives from a developing nation in the Middle East. *Online Information Review,* 32**,** 58-72.

STEENKAMP, J. B. E., & BAUMGARTNER, H. 2000. On the use of structural equation models for marketing modeling. *International Journal of Research in Marketing*, *17*(2), 195-202.

STEENKAMP, J. B. E. M. and H. VAN TRIJP. 1991. The use of LISREL in validating marketing constructs. *International Journal of Research in marketing,* **8**(4), pp.283-299.

STEINFIELD, C. 'Does Online and Offline Channel Integration Work in Practice','. Workshop on E-Commerce Impacts Revisited, DIW-Berlin, 2004.

SUH, B. & HAN, I. 2003. Effect of trust on customer acceptance of Internet banking. *Electronic Commerce research and applications,* 1**,** 247-263.

SULLIVAN, U. Y. & THOMAS, J. 2004. Customer migration: an empirical investigation across multiple channels. *Arbeitspapier, Northwestern University*.

SUNDERS,M.,P.LEWIS and A.THORNHILL.2000.*Research methods for business students.* Prentice Hall.

SURPRENANT, C. F. & SOLOMON, M. R. 1987. Predictability and personalization in the service encounter. *The Journal of Marketing***,** 86-96.

SZYMANSKI, D. M. & HENARD, D. H. 2001. Customer satisfaction: a meta-analysis of the empirical evidence. *Journal of the academy of marketing science,* 29**,** 16-35.

TABACHNICK, B.,G & FIDELL, L., S. 2007. *Using multivariate statistics.* International student 5th ed. Boston: Allyn and Bacon.

TAYLOR, S. A., CELUCH, K. & GOODWIN, S. 2002. Technology readiness in the e-insurance industry: an exploratory investigation and development of an agent technology e-consumption model. *Journal of Insurance Issues,* 25**,** 142-165.

THOMAS, J. S. & SULLIVAN, U. Y. 2005. Managing marketing communications with multichannel customers. *Journal of Marketing***,** 239-251.

TSE, D. K. & WILTON, P. C. 1988. Models of consumer satisfaction formation: an extension. *Journal of marketing research***,** 204-212.

TSIKRIKTSIS, N. 2004. A Technology Readiness-Based Taxonomy of Customers A Replication and Extension. *Journal of Service Research,* 7**,** 42-52.

TULL,D.S. and. D.HAWKINS. 1993. *Marketing Research: Measurement and Method : a Text with Cases.*Prentic-Hall,Inc, New Jersey.

VAN BIRGELEN, M., DE JONG, A. & DE RUYTER, K. 2006. Multi-channel service retailing: the effects of channel performance satisfaction on behavioral intentions. *Journal of Retailing,* 82**,** 367-377.

VAN DOLEN, W., LEMMINK, J., DE RUYTER, K. & DE JONG, A. 2002. Customer-sales employee encounters: a dyadic perspective. *Journal of Retailing,* 78**,** 265-279.

VÁZQUEZ-CARRASCO, R. & FOXALL, G. R. 2006. Influence of personality traits on satisfaction, perception of relational benefits, and loyalty in a personal service context. *Journal of Retailing and Consumer Services,* 13**,** 205-219.

VERHOEF, P. C., NESLIN, S. A. & VROOMEN, B. 2007. Multichannel customer management: Understanding the research-shopper phenomenon. *International Journal of Research in Marketing,* 24**,** 129-148.

VINZI, V.E. TRINCHERA, L & AMATO, S 2010**.** PLS Path Modeling: From Foundations to Recent Developments and Open Issues for Model Assessment and Improvement *IN:* VINZI, V.E. CHIN,W.W.,HENSELER,J.& WAND,H (eds.) *Handbook of partial least squares: Concepts, methods and applications*. Springer, P.47-80.

WALLACE, D. W., GIESE, J. L. & JOHNSON, J. L. 2004. Customer retailer loyalty in the context of multiple channel strategies. *Journal of Retailing,* 80**,** 249-263.

WARRINGTON, P. T., GANGSTAD, E., FEINBERG, R. & DE RUYTER, K. 2007. Multi-channel retailing and customer satisfaction: implications for e-CRM. *International Journal of E-Business Research (IJEBR),* 3**,** 57-69.

WATSON, D. & CLARK, L. A. 1997. Extraversion and its positive emotional core.

WESTBROOK, R. A. & REILLY, M. D. 1983. Value-percept disparity: an alternative to the disconfirmation of expectations theory of consumer satisfaction. *Advances in consumer research,* 10**,** 256-261.

WESTJOHN, S. A., ARNOLD, M. J., MAGNUSSON, P., ZDRAVKOVIC, S. & ZHOU, J. X. 2009. Technology readiness and usage: a global-identity perspective. *Journal of the Academy of Marketing Science,* 37**,** 250-265.

WILSON,A., ZEITHAML,V., BITNER,M.,& GREMLER,D.2012. *Service Marketing Integrating customer focus across the firm.* 2nd European ed.United Kingdom. McGraw-Hill.

WILSON, B. 2010. Using PLS to investigate interaction effects between higher order branding constructs *IN:* VINZI, V.E. CHIN,W.W.,HENSELER,J.& WAND,H (eds.) *Handbook of partial least squares: Concepts, methods and applications*. Springer (pp. 621-652).

YANG, S., LU, Y., ZHAO, L. & GUPTA, S. 2011. Empirical investigation of customers' channel extension behavior: Perceptions shift toward the online channel. *Computers in Human Behavior,* 27**,** 1688-1696.

YEN, H. R. 2005. An attribute-based model of quality satisfaction for internet self-service technology. *The Service Industries Journal,* 25**,** 641-659.

YI, Y. 1990. A critical review of consumer satisfaction. *Review of marketing,* 4**,** 68-123.

YI, Y., TUNG, L. L. & WU, Z. 2003. Incorporating technology readiness (TR) into TAM: are individual traits important to understand technology acceptance?

YOON, H. S. & BARKER STEEGE, L. M. 2012. Development of a quantitative model of the impact of customers' personality and perceptions on Internet banking use. *Computers in Human Behavior.*

ZBOJA, J. J. & VOORHEES, C. M. 2006. The impact of brand trust and satisfaction on retailer repurchase intentions. *Journal of Services Marketing,* 20**,** 381-390.

ZEITHAML, V. A., BITNER, M. J. & GREMLER, D. D.(2009) *Services Marketing: Integrating Customer Focus across the Firm*. 5th International Edition. London: McGraw-Hill.

ZEITHAML, V. A., BERRY, L. L. & PARASURAMAN, A. 1996. The behavioral consequences of service quality. *The Journal of Marketing***,** 31-46.

ZHANG, P., Li, N., & SUN, H. 2006. Affective quality and cognitive absorption: Extending technology acceptance research. In *System Sciences, 2006. HICSS'06. Proceedings of the 39th Annual Hawaii International Conference on* (Vol. 8, pp. 207a-207a). IEEE.

ZOU, S. & CAVUSGIL, S. T. 2002. The GMS: a broad conceptualization of global marketing strategy and its effect on firm performance. *The Journal of Marketing***,** 40-56.