THE UNIVERSITY OF HULL

Exploring Value Co-creation within Buyer-Seller Relationship in Mobile Applications Services: a Model Development

Being a Thesis Submitted for the Degree of Doctor of Philosophy in the Business School in the University of Hull

By

Sulaiman A. Althuwaini

B.A. English Language & Literature, Al-Imam M.I.S.I University
MSc. Advertising and Marketing, The University of Hull (2010) UK.
Research Diploma, The University of Hull, 2014

Septemper 2015

Abstract

Mobile phones have become an indispensable part of consumers' life where they access core and supporting services via mobile applications services (m-applications). The focus of the present study is to explore dyadic buyer-seller roles in m-applications services' value creation taking mobile banking applications services (MB-applications) as a case study. While prior research on value co-creation in service dominant logic (S-d logic) serves as a foundation for this study, it does not provide adequate guidance on how buyer and seller co-create value in m-applications services.

To address this shortcoming, semi-structured interviews were carried out with 12 banks' officials in banks' headquarters of Saudi Arabia. Also, six focus groups were conducted; three with MB-application services users and three with non-users which were held in Riyadh College of Technology (RCT). In addition, a content analysis of MB-applications services was conducted to support suppliers' perspectives regarding value propositions (service offering). A conceptual framework is developed for managing co-creation to illustrate practical application of the framework.

The findings pointed to six factors that shape shape service suppliers' ability to offer and deliver value via MB-applications, namely; brand image building, bank's business vision, customer culture-orientation, bank's internal environment, information technology system and positioning strategy. These factors combine to establish a value proposition for banks' customers in the MB-applications services domain.

Customer's value creation as value in-use during usage emerged in different usage situations. A value framework incorporating value consumptions (Sheth *et al*., 1991a) is proposed. It identifies the main value-adding elements in m-applications and the primary drivers for adopting m-applications. Findings revealed that bank managers attempted to support customers' value creation, which was reflected in MB-application content. However, support was constrained by some insufficient assumptions about customers and the m-commerce architecture. Factors that impede MB-applications use include consumers' banking habits, perceived risk (security and privacy); usability hindrance, marketing and promotion, technical problems, and socio-cultural barriers. Implications are drawn for service delivery value perception and mobile marketing theory, and recommendations are made to service suppliers and commercial banks to achieve sustained returns of investment from MB-applications services.

Dedication

Praise be to God, for those who are righteous by His grace

To my Mum; thank you for your support and for sacrificing your life for me and my family.

To my dad who always encouraged me to high achievement.

Also special thanks go to my brother Ayman and Ryan for their help and for supporting my family during my absence.

Acknowledgements

In the name of Allah, the most Beneficent and the Most Merciful. All praise and thanks to Allah who provided me with blessings, strength and patience during the years of the PhD journey. He gave me the health and inspiration to complete my PhD study. This could never have been achieved without His mercy and help.

In the beginning, I am greatly indebted and grateful to my first supervisor, Dr. David Harness, for having this research opportunity and for his perpetual motivation and invaluable guidance from the initiation to the last moments of this thesis completion. Many thanks to my second supervisor, Professor Chanaka Jayawaardhena, for being patient and allocating time to help me during different phases of the research. Also, I would like to thank Dr. Dianne Dean for her assistance and support during my study. Special appreciation to Mrs. Kathryn Spry for her time in proof reading.

I am grateful to the University of Hull administrative staff, especially the Business School and Graduate School for facilitating and improving my research skills. Also, thanks to my PhD colleagues for their emotional support and giving me constant advice through the research phases. Additional thanks to Riyadh College Technology members of staff and Saudi Banks' directors for their assistance in the data collection fieldwork. Thanks to all participants for sharing their experience and giving the time for data collection.

Special thanks to the Government of Saudi Arabia for providing the financial support to enable me to achieve the end of the PhD. This is highly appreciated.

Last but not least, I am grateful to my wife, Wafa, for her patience and encouragement during this time away from home and being a source of love and support and to my daughter Baylasan for being a source of happiness.

Published Papers

- Althuwaini, S. (2012) **'Value Creation in Mobile Banking Applications Services: Exploring Bank-Customer Perspectives'**, *Proceeding of the Academy of International Business Conference, International Marketing Track*, Doctoral Colloquium, 29-31 March, University of Liverpool, Liverpool, UK.

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- Althuwaini, S. (2015) '**Exploring Buyer-Seller Dyadic Value Creation in Mobile Applications Services: a Framework Development',** 8th Saudi International Conference, 31/Jan-01/Feb 2015, Imperial College London, UK.

- Althuwaini, S. (2015) **'Who Creates Value and Who Determine it? Exploring Buyer-Seller Value Creation in Mobile Banking Applications Services'**, PhD Experience International Conference 7-8 April 2015, Hull Business School.

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GLOSSARY

Terms and Abbreviation	Definition
Electronic commerce (e-commerce)	Any commercial transactions conducted electronically on the Internet.
Fourth Generation 4G	A mobile wireless standard that delivers wireless broadband up to 100 Mbps enabling fast downloading and up loading for mobile devices.
General Packet Radio Service (GPRS)	A packet switching technology that enables high-speed data transmission of up to 115 kbps.
Global Positioning System (GPS)	A technology that enables triangulation of one's location on Earth by using time differences between signals from various satellites to reach the receiving device.
Global System for Mobile Communications (GSM)	The Global System for Mobile Communications (GSM) is a second generation (2G) standard for mobile networks which used to keep mobile devices connected to the web.
Long Term Evolution (LTE)	An update to the UMTS technology that will enable it to provide significantly faster data rates for both uploading and downloading.
Mobile applications (m-applications)	Internet applications that run on smart phones, tablets and other mobile devices. They are either pre-installed on smart phones during manufacture, downloaded by users from different mobile Applications Stores (e.g. Apple Store) downloaded, or web applications delivered over HTTP which use client-side processing (e.g. JavaScript) to provide an "application-like" experience within a Web browser.
Mobile banking applications (MB applications)	MB applications designed by financial banking services providers which can be downloaded from App Stores (e.g. Google play). Clients can perform various banking tasks depended on the implemented features in app.
M-commerce	M-commerce (mobile commerce) is the buying and selling of goods and services through wireless mobile devices such as mobile phones and mobile tablets. Known as next-generation e-commerce, m-commerce enables users to access the Internet without needing to find a place to plug in.

m-commerce features	Mobile and wireless connection devices have various features which make them distinctive of e-commerce. These are ubiquity (accessible from anywhere), reachability (their users can be reached at any location), convenience (it is not necessary to have access to a power supply or a fixed-line connection), 'always-online', location-based services (services can be retrieved from users' current place), privacy (mobile is more private, desktop makes them suitable for alerts services), Identifiability (Mobile telecommunication devices have a Subscriber Identity Module (SIM). The SIM is registered with the network operator and the owner is thus unambiguously identifiable).
mobile services	Any service that can be operated on a mobile device, such as both voice and data services, for example, roaming, SMS and MMS, video streaming, location-based services, etc.
Short Message Service (SMS)	A messaging standard that is based on text-only format used in mobile phones.
Smart phones/tablets	A mobile phone that is able to perform many of the functions of a computer, typically having a relatively large screen, touch-screen, QWERTY keyboard, Internet access and an operating system capable of downloading and running general-purpose applications. However, tablet PCs are larger than smart-phones. They have bigger screen size, display and battery life.
Third Generation (3G)	Third generation of mobile phone technology based on UMTS standard with high-speed transfer enabling video calling and download.
Mobile value-added services	Value added services include higher wireless bandwidth and more diverse video and audio services, mobile payment, mobile blog, mobile TV, video call, video meeting, mobile internet access, mobile intranet/extranet access, customized infotainment, MMS, location-based service, simple voice service and rich voice service, WAP push messages texts, communication apps (e.g. social networks apps), games apps, Multimedia (e.g. presentations viewers), productivity (e.g. calendars, spreadsheets, translators),travel (e.g. GPS/Maps, weather), Utilities (e.g. file manager).
Wireless application protocol (WAP)	WAP is a technical standard for transferring information to wireless devices such as mobile phone.
Wireless fidelity (Wi-Fi)	A high-speed wireless local-area network enabling wireless access to the Internet for mobile phone and home users.

CHAPTER ONE
RESEARCH INTRODUCTION

Table 1 Current chapter position in the research.

Chapter One	Introduction
Chapter Two	Role of Customer Relationship Management (CRM) in value creation and delivery
Chapter Three	An overview of customer buying behaviour in mobile services context
Chapter Four	Research context: Saudi banking sector overview and MB services
Chapter Five	Research methodology and data collection methods design
Chapter Six	First phase data anlysis: suppliers' persepctives
Chapter Seven	Second phase data analysis: part one
Chapter Eight	Second phase data anlysis: part two
Chapter Nine	Discussion and interpretations of findings
Chapter Ten	Conclusion, recommendations and research contribution

1.1 Introduction

This chapter presents the research background and the motivation for conducting the research. It introduces the reader to the main aim and objectives of this research to achieve theoretical and practical value. This chapter also covers three essential purposes. First, it provides a general review of the theoretical underpinning of m-commerce development. M-commerce has opened new academic research areas with the help of mobile infrastructure communication technologies. For marketers, the widespread adoption of mobile phones represents a sublime marketing opportunity to stay connected with consumers, as they facilitate the ability to reach and serve consumers anytime and anywhere. Second, it introduces value creation perspectives from both supply and demand sides. Also, this chapter suggests a working definition of the buyer-seller value co-creation process which is employed throughout the study. Third, it establishes the theoretical and practical significance of the current research, which contributes to both theory and practice by adding to the body of knowledge in the area of mobile marketing. Figure 1 illustrates the main issues discussed in this chapter.

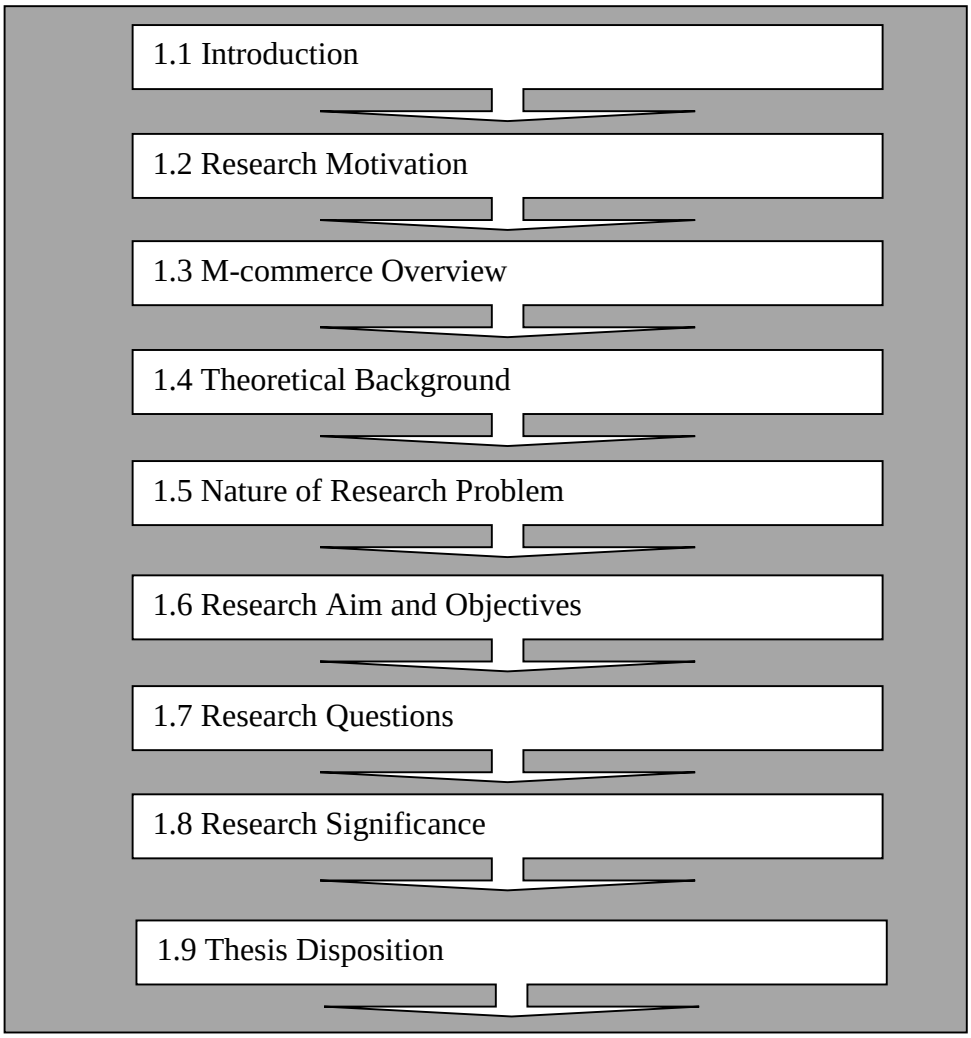


Figure 1 Structure of Chapter One.

1.2 Research Motivation

This thesis stems from an educational background in academic work. During my academic experience, I used to deliver lectures in general disciplines such as information and communication technologies (ICTs) in teaching and learning environments. The module highlights the importance of ICTs as useful resources to enhance learning experiences. It is a part of the transformation of the teaching-learning process and the way teachers and learners gain access to knowledge and information. Also, this reflects the new trend in academic organizations in Saudi Arabia in general towards the deployment of ICTs in the learning process. Therefore, policy-makers have recognized the significance of ICTs in shaping the new economy and producing rapid changes in the society. This was a trigger to select a research topic which is relevant to the electronic environment for postgraduate studies.

Also, information technology devices have always interested me, from my first computer through to the smartphone, which has become indispensable in everyday activity. In 2007, when the iPhone was released, it was a phenomenal advance in the m-commerce industry. Since then, smartphones have become the leading devices taking the front end of the mobile terminal. For a marketers, this movement of smartphones indicates a new class of mobile phones services. This is reflected by the core technological infrastructure which advanced mobile phones feature beyond traditional services such as calls or sending/receiving SMS. This has encouraged me to engage in postgraduate studies exploring wireless technology's effect from a service marketing perspective. Wireless technology represents the future direction of ICTs and they pervade our daily lives.

Furthermore, the growing penetration of smartphone adoption all over the world indicates a change in consumer behaviour. Today's smartphones are different from the old generation of smartphones in terms of offering a wide range of mobile media content via particular m-applications. This is supported by wireless technology development (e.g. 4G), screen resolution and other features which attract general consumers. Further, the mobile applications market is another feature of current smartphones. M-applications services offer a great potential for successful business opportunities. For example, the acquisition of WhatsApp by Facebook Company in a $19 billion deal highlights the potential of the m-applications services market. Another indication is the interest in mobile-focused businesses such as Snapchat, which is also worth a substantial fortune. This m-applications service driven business is shaping the future of m-commerce. Therefore, these changes spurred by recent development in mobile innovations make the current research worthwhile. It was a chance to spend the years of postgraduate studies investigating ICTs' effect on consumers' behaviour and consumption of technology and other related services.

1.3 M-commerce Overview

Smartphones and mobile tablets emerged as hybrids of personal digital assistance (PDAs) in the late 1990s. Since then they have passed through tremendous technological development in hardware and software functionalities. The inception in the 1990s of short message service (SMS) capabilities brought a novel value proposition to mobile marketing. The development of mobile phones value propositions has offered additional capabilities such as MMS, bigger screen size and a few other features.

The emergence of new smartphone innovations recently has offered additional mobile services for consumers. Smartphones have become indispensable in most consumers' everyday lives. The capabilities of smartphones have presented mobile service suppliers with a set of possibilities to improve customer relationship. The rapid development of smartphone technologies has brought countless value propositions. These involve better and bigger screen resolution, mobile Internet, video and audio systems, GPR and much more. These are spawned by developments in mobile telecommunication technologies infrastructure such as 3G and 4G LTE. Most smartphones' services are offered via micro information technology applications. These mobile applications (m-applications hereafter) are a set of software developed specifically for mobile devices that perform certain tasks for the users. In some cases m-applications services come pre-installed on the smartphone, although many others are freely available in the marketplace, where a user can download and install them on the smartphone (Wong, 2012; Goldman, 2010).

Mobile commerce (m-commerce) has presented potential marketing opportunities to reach and serve customers anywhere and at any time (Kannan *et al*., 2001). Prior to m-commerce development, e-commerce access required fixed line network and equipment such as computers (Wei *et al*. 2009). In literature, the m-commerce concept has been approached from different perspectives. Traditionally, m-commerce is seen as a subset of e-commerce (Varshney and Vetter, 2002). Others view m-commerce as an independent medium due to its system characteristics (Feng *et al*., 2006; Dholakia and Dholakia, 2004). Tiwari and Buse (2007: 33) define m-commerce as *''any transaction involving the transfer of ownership or rights to use goods and services which is initiated and/or completed by using mobile access to computer-meditated networks with the help of an electronic device''*. Ting-Peng and Chih-Ping (2004: 7) describe m-commerce *''as the use of wireless devices especially mobile phones to conduct electronic business transactions such as product ordering, fund transfers and stock trading''*.

Due to rapid improvement of mobile technologies and the gap that exists in m-commerce drivers in developed countries, this study adopts a holistic view of m-commerce and views it as:

''the use of smartphones and tablets with a wireless connection to perform electronic business transactions and buy or sell products and services''.

This definition does not constrain m-commerce to stationary electronic devices (e.g. personal computer PC), but rather highlights the unique characteristics of hybrid technological innovations. Further, it pinpoints the magnitude of m-applications store which offers condensed transactional or non-transactional services depending on the supplier (Wong, 2012; Goldman, 2010).

M-commerce has the advantage of ubiquity and omnipresence over e-commerce (Barnes and Corbitt, 2003; Dholakia and Dholakia, 2004). In addition, Feng *et al*. (2006) point out that with its distinctive features and functions such as mobility and broad reachability m-commerce provides a new and innovative business opportunity. Unlike conventional perspectives which view m-commerce as a subset of e-commerce, marketing advanced thinking should treat m-commerce as an independent medium due to its unique attributes (Mahatanankoon *et al*., 2005; Siau *et al*., 2001).

1.4 Theoretical Background

There is a considerable volume of published studies describing the role of service-dominant logic (S-d logic) in value co-creation (Ballantyne *et al*, 2011; Grönroos and Voima, 2013; Vargo and Lusch, 2004). Since then, S-d logic has been widely investigated and discussed in the marketing literature. S-d logic highlights the value co-creation process and argues that it happens merely when a customer is involved as a co-creator of value (Vargo and Lusch, 2004a; 2006b). The concept of value co-creation indicates generally the active participation of the customer in a variety of activities performed with the support of the service supplier, in order to create value collaboratively (Fragidis *et al*., 2014). The Internet and mobile applications provide a basis for collaboration and value co-creation with customers (Fragidis *et al*., 2010; Payne *et al.*, 2008)

In the age of Internet-connected mobile devices, consumers have new opportunities to access services. This indicates changes in consumer behaviour with the willingness for ubiquitous access to services for customers who are on the move (Anckar and D'Incau, 2002; Shankar *et al*., 2010). Also, mobile technologies is moving mobile services into further dimensions. Balasubramanian *et al.* (2002) assert that mobile technologies' advances are promising further benefits by decreasing the spatial and temporal constraints of service provisioning and use. In addition, consumers' role in service provision is viewed from different perspectives. As an emerging theoretical thought, S-d logic emphasizes the role of customers as co-creators of value, who integrate firm-provided resources for their own benefits (Vargo and Lusch, 2006).

However, value creation and delivery in financial markets has been viewed as a competitive priority and a key component of the firm's long-term success (Keränen and Jalkala, 2014; Conti, 2013; Lindgreen *et al*, 2012). From this perspective, firms seek to understand, communicate and deliver differentiated value propositions to gain competitive advantage (Woodruff, 1997). Under S-d logic, customers are proactive co-creators rather than passive recipients of value and the firm is a facilitator in the value co-creation process rather than producer of standardized value (Payne *et al*., 2008). The role of the product (e.g. smartphone) acts as a vehicle for service offerings provision (Vargo *et al*., 2008). These offerings of the firm are composed of a value proposition which is realized through co-creation interactions with customers to achieve a particular end. In other words, customers continue the value-creation process through use experience. This highlights customers' role in the co-creation as it is they who define and create the value as value in-use (Grönroos, 2008; Sandström *et al*. 2008). The value is based on customers' experiences and subjective perceptions while using the service (Prahalad and Ramaswamy, 2004a). The idea of achieving value in-use through co-creation has received substantial attention in marketing literature (Payne *et al*. 2008; Sandström *et al*. 2008; Vargo and Lusch, 2006, 2008).

Customers' value creation as a value in-use emerges during the usage situation and the role of suppliers is to facilitate and support the customer's value creation (Grönroos, 2008; Sandström *et al*. 2008). Storbacka and Lethtnen (2001) point out that customers generate value for themselves independently with the help that suppliers may offer. Payne *et al*. (2008) describe that technological breakthroughs (e.g. smartphones) are considered a significant type of value co-creation opportunity. Suppliers' co-creation of value in-use takes place jointly with the customers (Grönroos, 2008). As stated earlier, customers are responsible for creating value in-use but without the existence of suppliers' value proposition there is no value co-creation opportunity (Grönroos, 2011; Payne *et al*., 2008). Consequently, co-creation is defined in this study as *''the process during which consumers take an active role and co-create value together with the company''* (Prahalad and Ramasway, 2004a: 8).

For theoretical purposes, a framework is developed to guide mutual dyadic value creation activities in the buyer-seller relationship. It employs value co-creation based on analytical definition of co-creation in a value creation context. The objective is to examine suppliers' role in creating and delivering value to customers via mobile services. In

isolation from each other, the supplier facilitates creation of value in-use and the customer subjectively as value creator determines value in-use at the time of consumption.

1.5 Nature of Research Problem

Although seen as an important issue, the extant theoretical body of knowledge on value creation is still fragmented (Sánchez-Fernández and Iniesta-Bonillo, 2007; Khalifa, 2004; Ravald and Grönroos, 1996). This is because the phenomenon of value creation is difficult to grasp, to conceptualize and to model, which may cause the above mentioned fragmentation in marketing literature. However, Holbrook (1999: 67) defines value as *''an interactive relativistic preferences experience''*; which denotes that the experience defines what is valuable to a consumer. In addition, Holbrook (1999) assumes that consumption experiences are likely to involve more than one type of value simultaneously. This becomes apparent in mobile services where consumers enjoy the fun aspect while achieving a purpose (Pura, 2005).

Recent research argues that value is always uniquely and phenomenologically determined by the beneficiary and co-created as actors interact to integrate resources (Vargo and Lusch, 2008). In this approach, the role of customers as value co-creators is emphasized. As such, the view of customers' role in value creation has changed from being passive audience to active players (Prahalad and Ramaswamy, 2000; Payne *et al*. 2008). The value creation process occurs when the customer performs a series of activities to achieve a desired outcome (Payne *et al*. 2008). Thus, value co-creation is co-created when resources are used. The role of the suppliers is to create the value proposition which is dependent on input from customers (Vargo and Lusch, 2008; Vargo *et al*. 2008). Hence, customer experience with the service is an important determinant of value creation and assessment. In this study, value creation is viewed from a holistic, dyadic perspective considering the demand and supply sides engaged in a long-term relationship. Customer perceived value in long-term relationships with a supplier is rather neglected and it therefore constitute a very interesting area for research (Ravald and Grönroos, 1996).

Reviewing mobile services literature reveals that the mobile industry is interested in empirical studies in service consumption and usage patterns for the following reasons. **First**, the value of the mobile industry is improved with the spawning of mobile devices' (i.e. smartphones' and tablets') capabilities including MMS (multimedia messaging service), mobile e-mail and video calls. **Second**, development of the mobile industry has opened a platform for smartphone software, e.g. m-applications, which drive new mobile

services innovations. In addition, early adopting consumers can addon m-applications which provide different media service content (Verkasalo and Hämmäinen, 2007). The add-on m-applications are built on Internet connection which confers always-on connectivity to end-users. In the meantime, the mobile services domain has shifted to add-on m-applications driven by enhanced mobile wireless communication (i.e. 4G, Wi Fi network connection). **Third**, m-applications services have become integral for marketers because they combine the mobile browser and mobile-optimised website (Wong, 2012). Therefore, online retailers can offer multiple options for service offerings via the mobile. M-commerce acceptance is steadily rising, with mobile phone users switching over to smartphones as devices become more affordable and 3G/4G networks advance (E-marketers, 2014). The global proliferation of mobile technologies necessitates novel mobile services beginning with building new m-applications services. Therefore, this emergence of mobile technology is one of the key research challenges for academic and practical practitioners.

In response to technological industry development, financial services suppliers have recognized the effect of adopting e-banking services for business and marketing performance (Jayawardhena and Foly, 2000). Consequently, banks have adopted m-banking services to increase market share and meet business needs, i.e. cost-reduction and retaining current customers. Similarly, the adoption of e-banking in the Saudi Arabian banking sector is due to accumulative factors. **First**, the Saudi banking sector has opened its market for foreign and Western banks' branches which have become additional competition for domestic banks and other local financial services suppliers. **Second**, the invasion of mobile technology and its effect on mobile services delivery has led m-banking to be a focal point of growth strategies for the banking industry (Goswami and Raghavendran, 2009). **Third**, changes in demand are expected due to changes in customers' behaviour and demographics in mobile service consumption, due to local economic performance on the customer level.

From a review of mobile services consumer behaviour theories and customer relationship management theory with a particular attention on value-related studies, the following gaps are highlighted:

- Factors that explain suppliers' value creation process which arises from the interaction with customers in mobile services, who represent the current or potential users of services. Creating and delivering competitive value in m-

banking services requires suppliers to manage customer relationships through mobile customer relationship management (m-CRM) to the improve customers' experience with service delivery and encounter (Payne and Frow, 2005). The literature indicates that there is no consensus on factors or criteria that enable suppliers to create and deliver the best possible value via CRM. As an academic research stream of m-CRM is relatively evolving (Sinisalo *et al*. 2006), there is still scarcity in this academic field which has received a call from the research community to address the roles of mobile mediums in CRM, which is critical to the business continuity for long-term success (Yang, 2012; Kannan *et al*. 2001; Newell and Lemon, 2001). Moreover, e-banking services adoption literature showed that most studies and publications were conducted in Western and industrialized countries (Sinisalo *et al.* 2006; Lindgreen and Antioco, 2005; Peppard, 2000; Parvatiyar and Sheth, 2001; Chen and Popvich, 2003). In contrast, little is written in developing countries such as Saudi Arabia (Al-Jabri and Sohail, 2012; Al-Smadi, 2012). This gap is particularly apparent in the Arab world (Jabnoun and Al-Tamimi, 2003). A primary reason might be the limited publications and relevant studies particularly in the Saudi Arabian research context and the newly relevant introduction of the electronics and technological infrastructure in the Arab world.

- Despite the potency of mobile services, there is a lack of understanding about the ways mobile service can create value to enhance consumers' everyday life (Grant and O'Donohoe, 2007; Anckar and D'Incau, 2000). It is not understood how value is constructed from a customer value creation perspective (Sandström *et al*., 2008; Kleijnen *et al*., 2007). As a new form of mobile technologies, mobile applications services are growing rapidly with the support of 4G wireless network, which need further research and conceptual framework development (Yang, 2012). Smartphones' incremental growth brings new service concepts including mobility, flexibility, connectivity and efficiency to both consumers and business users alike (Verkasalo and Hämmäinen, 2007). Accordingly, there is a need for more research to identify value in-use in using mobile services. Value in-use is based on specific use situations with the help of a product or service offering to achieve a desired end (Woodruff and Gardial, 1996). Mobile devices (e.g. smartphones) are means of accomplishing customers' purposes of using a service. In this study, the

experiential use perspective is adopted to explore customers' value creation process in mobile applications services.

Exploring together perceived value determinants of m-banking applications services revealed from the demand perspective, and factors affecting the ability of banks to create and deliver the value of m-banking services would assist in providing a dyadic framework which guides value creation of m-banking services in the Saudi Arabia banking context.

1.6 Research Aim and Objectives

The main aim of this study is to develop a model which guides the dyadic buyer-seller value creation process of mobile banking services. This is achieved through a set of research objectives derived from the literature and guided by value co-creation elements suggested by Payne *et al*. (2008) and Grönroos (2008), as well as the customer value determination model established by Woodruff (1997). Value co-creation is a reciprocal process in mobile banking services between customers and the service supplier. Consequently, the roles of both parties in the dyad are examined in this study and reflected in the research objectives.

1st Objective: To understand the role of customer relationship management (CRM) in creating and delivering value in mobile banking service offering.

Creating customer value is increasingly viewed as a key to secure a firm's competitive advantage in the market (Woodruff, 1997). For suppliers, customer relationship management explicitly recognizes the long-term value of potential and current customers and seeks to cultivate profits, revenues and shareholder value through targeted marketing activities directed toward successful firm-customer relationships (Boulding *et al*., 2005; Morgan and Hunt, 1994). Understanding factors shaping suppliers' ability to create and deliver value has a key role towards value co-creation management (Payne *et al*., 2008; Sandström *et al.*, 2008). Accordingly, both supplier and customer involvement in the long-term relationship should be examined in the value creation process (Grönroos and Ravald, 2011). In a similar vein, Payne and Frow (2005:167) assert the role of the supplier in value creation, stating:

''The value creation process is a crucial component of CRM because it translates business and customer strategies into specific value proposition statements that demonstrate what value is to be delivered to customers, and thus, it explains what is to be received by the organization, including the potential for co-creation''.

Although firms are boosting their CRM investments, it remains unclear whether such investment can generate significant business growth (Payne and Frow, 2005). There is a need to examine banks' ability to deliver value through CRM and its effect, particularly in developing countries (Al-Smadi, 2012). This would contribute to explore factors that shape banks' ability to achieve CRM requirements for value management in the mobile banking services industry.

2nd Objective: To identify customers' value creation process determinants and consequence of mobile banking services perceived value in the Saudi environment.
In order to retain customers, the firm should seek to understand what they require from the service offering (Liao and Cheung, 2002). Customers are viewed as active, connected and empowered players with whom value is created (Prahalad and Ramaswamy, 2000b). Without feedback from customers, the value of a service offering might not be exist until it is used and experienced; perceptions are essential to value determination (Vargo and Lusch, 2006). Similarly, Payne and Frow (2005) point out that value assessment is a tool for improving product and service design, stating:
''To determine the value proposition is likely to result in a superior customer experience, a company should undertake a value assessment to quantify the relative importance that customers place on a various attributes of a product.''

Value is created when a product and a customer come together within a particular use situation (Woodruff and Gardial, 1996). In co-creating value, researchers have suggested that the firm's role is to merely offer a value proposition and it is the customer who determines value and co-creates it with the firm (Vargo and Lusch, 2004). Ballantyne and Varey (2006) point out that customers' value in-use begins with the enactment of a value propositions. In other words, a supplier service offering is merely value unrealized until the customer realizes it through co-creation and gains the benefits (Ballantyne and Varey, 2006).

This view emphasizes customers' judgment of mobile services value perceptions in a use situation. Anckar and D'Incau (2002) point out that the best way to see the true value of mobile phones as a marketing channel is to see it in the context of user situations. For this reason, focus groups have been applied with mobile services users and non-users. This served two main purposes. The first was to gain an overall understanding of use situations where consumers depict the mobile services' perceived value. The second was to guide

the factors of value deconstruction which impede banks' clients from recognizing the value of the service offering.

3rd Objective: To develop a model that guides the buyer-seller value co-creation process of mobile banking services.

Identifying factors shaping suppliers' ability to create and offer value proposition via mobile banking services and customers' value assessment and determination is a crucial phase in exploring dyadic value creation management (Payne *et al*., 2008; Grönroos, 2011). Accordingly, in this study, factors explored from the banking services suppliers' perspective represent banks' ability to create and deliver mobile banking services value through CRM, which is linked to the determinants of mobile banking perceived value explored from the consumers' perspectives, in the developed model. This assists in providing a broader view of the buyer-seller value co-creation process of mobile services in general and mobile banking in particular.

1.7 Research Questions

Based on the research argument and objectives, four research questions were formed in order to meet those objectives.

1. What are the factors that form the ability of banks to create and deliver the value of MB applications services in the banking sector?
2. How could the value of MB applications services be offered to facilitate customers' perceived value?
3. How do consumers use m-applications services in general and MB in particular and how does this affect their value creation?
4. What are the main obstacles that discourage banks' clients from perceiving the value of mobile banking services?

1.8 Research Significance

The significance of the current research arises from two sources:

1.8.1 Practical Significance

M-applications services are under development, which provides new business opportunities for suppliers. Despite the rapid growth and usage of m-applications services globally, the use of m-commerce services in general has been highly variable across

countries (Dholakia and Dholakia, 2004). This might be related to the characteristics of the country environment such as telecommunication infrastructure, consumer behaviour and culture.

Understanding Saudi consumers' behaviour towards mobile services with particular reference to banking services will help suppliers and content developers to design and position their service offerings. For managers, it highlights the important role of value perceptions among consumers. In addition, this research articulates the value of smartphones as a marketing channel in consumers' life and examines it in the context of their actual use situations.

1.8.2 Theoretical Significance

Little is known about customer buying behaviour in m-applications services in the Saudi Arabian environment. Further, little is known about the new roles of smartphones for companies when engaging with customers in the CRM context, in particular in Saudi Arabia. The theoretical contribution of this research arises from the following:

- This research extends the literature of consumer buying behaviour in m-applications services and the literature of m-CRM to the Saudi environment. This results in the explicit consideration of value perceptions that have been examined in previous studies and cultures to explain Saudi consumers' behaviour towards m-applications services offered in the Saudi environment with particular reference to MB services. In examining m-CRM implementation in the Saudi environment, factors reflecting the context of developing countries in general and the Saudi environment in particular are considered.
- The interpretivist paradigm adopted throughout the study results in new factors being considered in the consumer buying behaviour towards MB applications services, and the m-CRM literature, to reflect the Saudi context.
- Furthermore, the study identifies the stimulus of value creation of services in general and in MB services in particular to influence use situations. It illustrates the nature of m-applications services value and how contextual elements have a crucial role in influencing the value perceptions and preferences that are related to the m-applications service content itself. This study contributes in filling the knowledge gap in the mobile marketing area by presenting an m-applications services value framework. M-applications services content design is in its infancy;

therefore, content developers can exploit use situations in delivering mobile services.

- Developing a dyadic buyer-seller overall process of m-applications services value creation requires integrating customer requirement and needs with banks' ability to meet those needs by highlighting the factors of the bank to create and deliver the value of MB applications services. However, previous studies lack an integrated perspective of dyadic value creation in MB services. This study contributes to fill this gap of knowledge in a growing stream of service literature by presenting value creation factors from both the supply and demand sides in the Saudi Arabian context.

By identifying the above gaps of knowledge in literature and the contribution of the study to closing these gaps, this study contributes to developing consumer behaviour, value creation and CRM.

1.9 Thesis Disposition

Figure 2 presents the structure of the current thesis, following the systematic flow of research design. It commences with examining the relevant studies of CRM literature and consumer behaviour of mobile services to identify the research gaps and area of the research problem. After that, the thesis moves to decide on the appropriate research paradigm and methods to fill the identified gaps of knowledge and answer research questions. Then, findings are reported to provide research answers and fulfil the research aim and objectives.

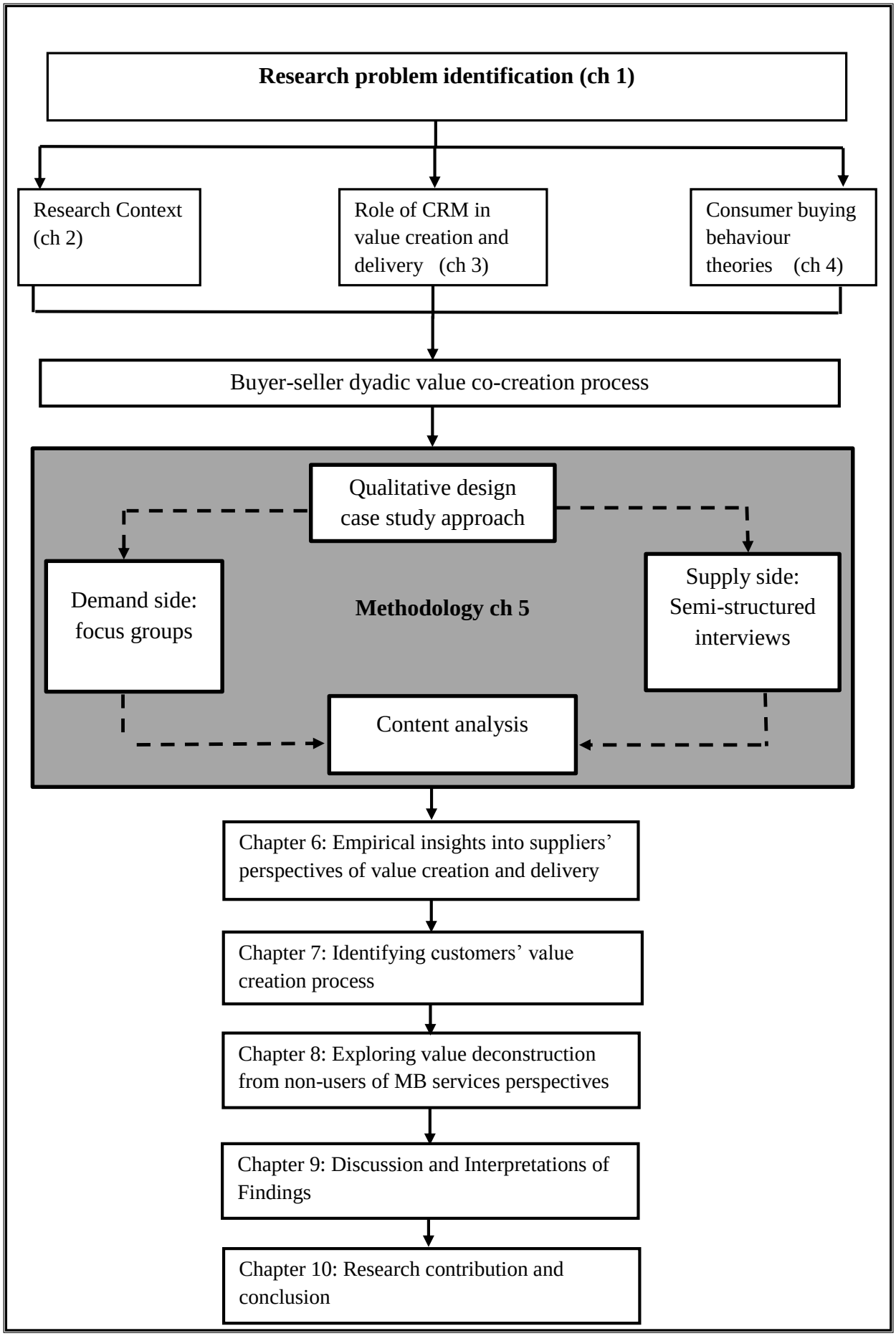


Figure 2 Thesis outline.

CHAPTER TWO
ROLE OF CUSTOMER RELATIONSHIP MANAGEMENT (CRM) IN VALUE CREATION AND DELIVERY

Table 2 Current chapter position in the research.

Chapter One	Introduction
Chapter Two	Role of Customer Relationship Management (CRM) in value creation and delivery
Chapter Three	An overview of customer buying behaviour in mobile services context
Chapter Four	Research context: Saudi banking sector overview and MB services
Chapter Five	Research methodology and data collection methods design
Chapter Six	First phase data anlysis: suppliers' persepctives
Chapter Seven	Second phase data analysis: part one
Chapter Eight	Second phase data anlysis: part two
Chapter Nine	Discussion and interpretations of findings
Chapter Ten	Conclusion, recommendations and research contribution

2.1 Introduction

This chapter discusses the role of CRM in value creation through m-banking services. This is achieved through reviewing and examining customer relationship management (CRM) literature, as it reflects the practical operation of relationship marekting (RM) philosophy. This review was carried out for two main purposes. The first is to identify the supplier's process which assists in the co-creation of value through the design and delivery of MB applications serivces (i.e. m-application content). This involves the drivers and requirements of implementing customer solutions in m-applications services. The second is to explore factors shaping the ability of banks to create and add value to m-banking serivces. Also, this chapter presents some major terminology in relation to maintaining customer relationship so as to avoid confusion to the reader. The evolution and definition of RM are examined because CRM is believed to be a philosophy based on RM and is a technologically based manifestation of CRM. Then, the definitions of CRM are reviewed from different persepctives to provide a definition which suit this study. In addition, this chapter discusses the academic conceptualization of mobile CRM. It helps to frame the relevent literautre review which examines CRM over the mobile medium. Using the mobile to promote CRM activities can help firms to take advantages

in terms of time and location convenience. Figure 3 articulates the main issues discussed in this chapter.

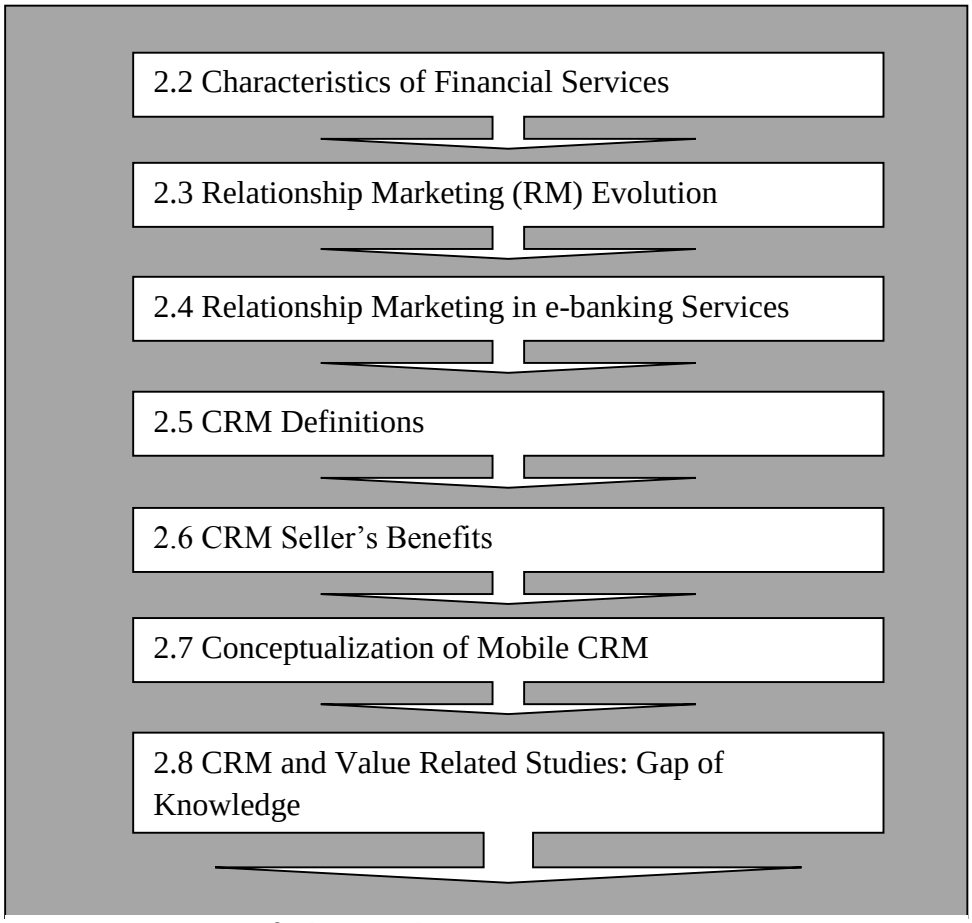


Figure 3 Structure of Chapter Three.

2.2 Characteristics of Financial Services

Marketing of financial services is a unique and highly focused branch of business. The marketing strategy of promoting and selling financial services products is far more complex than other consumer goods or services (Ennew and Waite, 2007). The marketplace of financial services is competitive, which makes marketing efforts more challenging and intensive. These efforts consist of a range of marketing activities which include planning, directing and controlling the business vision and objectives to secure the competitive place of the bank within the banking sector.

Financial services are concerned with individuals and corporate finance, and are directly linked to their intangible assets such as money and wealth management (McKechnie, 1992). Financial services cover a wide range of banking services, insurance, stock trading, credit/debit cards, foreign exchange and so on (Ennew and Waite, 2007; Harrison, 2000). These various services

are designed to meet a range of different customers' needs and require a formal relationship between service supplier and customers. Ennew and Waite (2007) argue that marketing issues that arise with a variety of financial services and products are considerable:

- Some financial services may be very short term (e.g. buying and selling stocks) while others are very long term (e.g. mortgages and pensions);
- Products vary in terms of complexity; a basic savings account for a personal consumer may appear to be a relatively simple product, whereas the structuring of finance for a leveraged buy-out may be highly complex;
- Customers vary in terms of both their needs and their levels of understanding; for instance, corporate customers may have considerable expertise and knowledge in relation to the types of financial services they wish to purchase, whereas many personal customers may find even the simplest products confusing.

Moreover, financial services are different from goods in terms of their characteristics (Farquhar and Meidan, 2010; Ennew and Waite, 2007). In general, services are processes or experiences that a customer cannot own, e.g. a bank account. According to Berry (1980: 25) a good is *''an object, a device, a thing, while a service is a deed, a performance, an effort''*. Services are impalpable as they lack a substantial physical form and cannot be tried in advance of purchase. Figure 4 shows that financial services are characterized by distinctive characteristics which include intangibility, inseparability, heterogeneity, perishability, fiduciary responsibility and two-way information flows (Ennew and Waite, 2007; Harrison, 2000; McKechnie, 1992). Intangibility highlights the distinctive characteristic of marketing services. It is derived from the fact that the service cannot be inventoried, seen or felt as tangible products. This may cause an increase in customers' uncertainty level and to reduce this factor, customers look for physical signals such as bank branches or ATMs or account statements which represent service suppliers (Harrison, 2000).

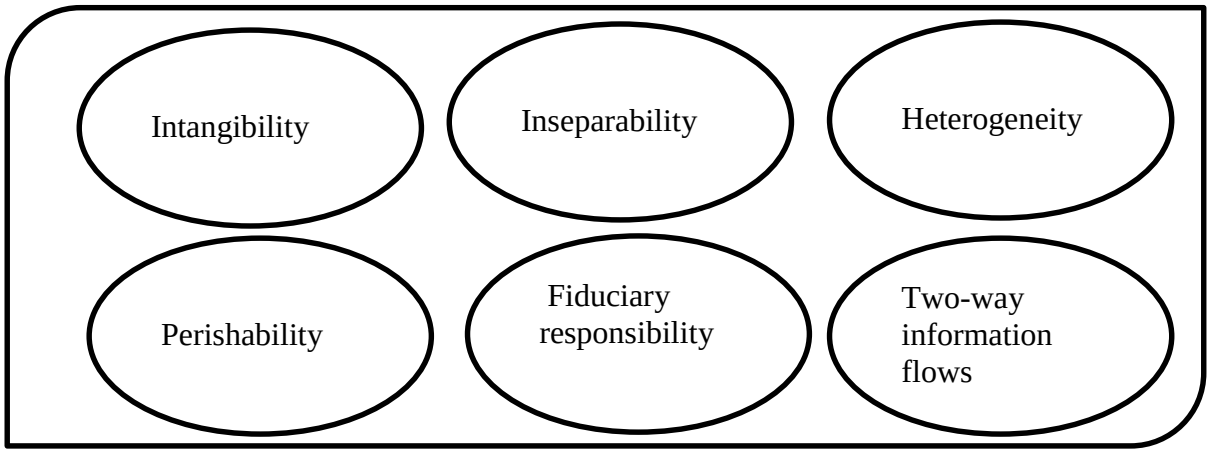


Figure 4 Financial services' characteristics (*source: Author*).

The nature of services as a process or experience means that services are inseparable; they are produced and consumed simultaneously (Ennew and Waite, 2007; Harrison, 2000). Most products and goods are firstly produced for consumption, while most services are sold then produced and consumed simultaneously. Also, the production of a service requires consumer involvement, in some cases to a higher degree than would be the case with physical goods (Bitner *et al*., 1997). In marketing services, customer involvement is an indistinct concept and comprises many different meanings (Solomon, 2002). This is mainly due to fragmented literature on the concept and different perspectives adopted by researchers (Alam, 2006). Customer involvement is discussed in literature under a wide variety of terms, such as customer participation (Martin and Horne, 1995), customer desired role (Bitner *et al*., 1997) and customer engagement (Good, 1990). Therefore, in this study, customer involvement refers to the amount of participation that customer and supplier recognize to carry on a service successfully.

However, inseparability of service production and consumption results in a third characteristic; heterogeneity. Ennew and Waite (2007) argue that heterogeneity of services can be interpreted in two main ways. Firstly, services are not standardized; meaning that customers have different needs and wants. Therefore, suppliers tailor services to meet those needs, whether in simple terms (e.g. the amount a consumer chooses to invest in a savings plan) or in very complex terms (e.g. the advice provided by bankers to a firm undertaking a major acquisition). Secondly, the service experience may vary from customer to customer or may vary from time to time for a particular customer. This heterogeneity arises as a consequence of the nature of an interaction between customer and service supplier. Financial firms are predominantly 'human-based' institutions; most customers interact face-to-face with the bank staff. However, the advent of technology has enabled banking services to be provided by self-service mediums and has enabled the service offering to be more standardized via the use of ATMs, mobile and telephone banking.

The nature of service production and consumption means that they are perishable. Services can only be produced when consumers want to purchase them, so they cannot be inventoried. When demand exceeds capacity customers are likely to be sent away disappointed, since there will be no inventory for back up (Harrison, 2000). Ennew and Waite (2007) elaborate that the perishability characteristic of financial services presents marketing with the task of managing

demand and supply to make best use of available capacity. They raised some issues that require particular attention, which include:

- Assessing whether there are identifiable peaks in consumer demand for a particular financial service. For example, bank branches may be busy at certain times of the day, while a tax advisor may experience a peak in the demand for services at the end of the tax year.
- Offering mechanisms for reducing demand at peak times and increasing it at off peak times.
- Assessing whether there is the opportunity to adjust capacity such that variability in demand can be accommodated. Many banks have relied heavily on self-service banking machines to offer quick banking services as an alternative to queuing for face-to-face service.

The fifth characteristic of financial services is that they have a fiduciary responsibility. It is the implicit responsibility which financial services suppliers have in relation to the funds management and financial advice supplied to customers (Ennew and Waite, 2007). In financial services marketing, consumers purchase a set of promises where service suppliers' promises are to take responsibility to look after consumers' management funds and their financial matters. Harrison (2000) notes that trust and confidence in the financial firm and its personnel are imperative. Consumers form trust and confidence with financial firms as an outcome of experience and they depend on other cues (e.g. financial service supplier size, image and longevity of business) prior to customers' purchase decision.

Financial services are not one-off transactions but customers and suppliers engage in a long-lasting relationship (Harrison, 2000). This dynamic relationship results in two-way information flow over an extended period of time. Customers' frequent uses of ATMs, online banking, issuing bank statements or branch visits provide potential for banking habits of customers. The interaction with suppliers' services provides the opportunity to find out in-depth information on use and consumption of financial services.

Services are relatively intangible, produced and consumed simultaneously, and less often less standardized than goods. These unique characteristics of services have specific marketing implications. Accordingly, service suppliers utilize technology as a strategic effort to provide cost effective services, to manage customer relationships and to offer products to serve

customer needs (Durkin and Howcroft, 2003; Jayawardhena and Foly, 2000). Also, delivering technology-based services creates convenience, offers better service quality and customer satisfaction levels (Joseph and Joseph 1999). Technological innovations have a key role in driving competition and help to overcome profitability of traditional banking (Durkin and Howcroft, 2003).

2.3 Relationship Marketing (RM) Evolution

This section explains the driving forces of the evolution of relationship marketing (RM) in business organizations with particular attention to banking services suppliers.

The concept of RM emerged within the fields of marketing services and industrial marketing (Gummesson, 1995; Berry, 1995). RM as a business philosophy focuses on developing processes to maintain and retain customers. The objective of these processes is primarily to establish a consumer base before thinking about expansion to potential customers (Payne *et al*., 1995). RM is based on long-term trust and satisfaction and is centered on customer retention and customization (Parvatiyar and Sheth, 1995). Instead of influencing customers to buy the product, RM suggests making products to fit the customers. Payne and Frow (1999) point out that there is a direct association between the development of expenditure to maximize 'very satisfied' existing customers and its contribution to the development of profitability, which in turn results in increase of customer retention. Storbacka *et al*. (1994) argue that customer relationship profitability is achieved through a chain that commences with perceived value which creates customer satisfaction; this in turn, strengthens the relationship so that it lasts longer and becomes more profitable. Kale (2004) points out that customers' long-term relationships which result in customers' loyalty are more profitable than short-term relationships. Therefore, it is less expensive to retain an existing customer than to acquire a new one (Morgan and Hunt, 1994). RM is a strategic concept in business which can increase marketing effectiveness and efficiency (Evans and Laskin, 1994). This can be achieved by a higher percentage of satisfied customers, greater customer loyalty, a perception on the part of a firm's customers that it is offering better quality products and increased profits on the part of the supplier (Evans and Laskin, 1994). Similarly, Wang *et al*. (2004: 174) bring attention to the importance of enhancing customer relationships to cultivate their loyalty by clarifying that: ''*loyal customers contribute to the financial performance of the firm, as they emphasize a close relationship with a firm with lower price elasticity*''. Therefore, customer retention needs

to be part of the business's strategic marketing objectives rather than being seen as the end outcome of good marketing.

In financial services, the relationship between suppliers and consumers is described as complex and long lasting (Harrison, 2000). RM theory implies the development of a long-term relationship between consumers and suppliers to create mutual advantages. The concept of RM has been used and discussed widely in marketing services literature and was initially proposed by Berry (1983) as a process of attracting and maintaining customer relationships. However, Grönroos's (1994: 9) definition provides a more comprehensive view of the concept which is ''*RM requires the firm to identify and establish, maintain and enhance and when necessary, terminate relationships with customers and other stakeholders, at a profit so that the objectives of all parties involved are met. This can be accomplished by a mutual exchange and fulfillment of promises*''. RM is based on a long-term interactive and profitable relationship between the suppliers and consumers. Morgan and Hunt (1994) point out that RM includes all the activities of marketing that are related to establishing, developing and maintaining successful relational exchanges. Grönroos's definition of RM supports the discussion of the thesis as the term profit can be interpreted as value-added services by financial services suppliers to strengthen customers' relationships.

RM, as opposed to transactional marketing, aims to maintain current customers, identify their needs and reinforce a relationship with them (Table 3). Sheth and Parvartiyar (2000) argue that relationship marketing is a continuous process of engaging in cooperative and collaborative activities with end-user customers in order to create a mutual value at an economic cost. Gummesson (1999) describes RM as an approach of relationships, networks and interaction with customers. Thus, marketing is more than just a dyadic relationship between the supplier and the customer. It is a broad process of building relationships and interactions that firms undertake as part of marketing activities (Egan, 2008). The RM approach emerged upon the recognition of the limitations of marketing mix management (4Ps) and was embraced as a new paradigm in marketing theory (Sheth and Parvatiyar, 2000; Grönroos, 1994). The emergence of relational marketing philosophy spread from the direct producer to the consumer market (Grönroos, 1994). This is due to a confluence of changes in both business environment and consumers, including rapid technological advancements, total quality programme adoption, growth of service marketing orientation and economy and intense competitiveness which raised concerns for customer retention (Berry, 1995; Grönroos, 1994).

However, this view of RM philosophy is challenged in literature. Gummesson (1999) questions whether RM is a paradigm shift or merely a set of theories and frameworks. Other scholars argue that RM is a strategic philosophy and choice rather than a new paradigm shift (Li and Nicholls, 2000). It is a view of a business approach that maintains relationships with customers that improve the level of marketing activities.

The above overview reveals that RM is clearly a multidimensional concept. Researchers have argued on the theoretical elements of RM and there is no consensus on a unified definition. However, in its evolution, RM is affected by the emergence of new technology, in particular mobile phone devices. This can create a source of leveraging customer data as mobile phones provide one-to-one communication.

Table 3 Differences between transactional marketing and relationship marketing.

Transactional Marketing	Relationship Marketing
Orientation to single sales	Orientation to customer retention
Discontinuous customer contact	Continuous customer contact
Focus on product features	Focus on customer value
Short time scale	Long time scale
Little emphasis on customer service	High emphasis on customer service
Limited commitment to meeting customer expectations	High commitment to meeting customer expectations
Quality as the concern of production staff	Quality as the concern of all staff

(Source: Payne et al, 1995).

2.4 Relationship Marketing in e-Banking Services

Financial services business has a mutual relationship between service supplier and consumers. Service suppliers should present clear strategies which reflect brand values, reputation and perceived service quality which may attract new customers and retain existing ones. In buyer-seller literature, trust and commitment are the main building blocks which determine the success of the relationship.

It has been argued that trust and commitment appear to be main indicators among parties involved in RM strategies (Palmatier *et al*., 2006; Morgan and Hunt, 1994). According to Morgan and Hunt (1994:23) commitment means an exchange partner believing that an ongoing relationship with another is so important as to warrant maximum efforts at maintaining it. This implies that that the relationship is important and there is a desire to develop the relationship on a long-term basis. In addition, Morgan and Hunt (1994:23) argue that quality of service personnel and *customized solutions* have the strongest influence on customer commitment. Commitment represents a primary component of building successful long-term relationships (Morgan and Hunt, 1994; Dwyer *et al*, 1987). It signifies the adoption of a long-term orientation towards the relationship with an inclination to make short-term sacrifices to realize long-terms benefits (Ganesan, 1994; Dwyer *et al*, 1987). It is concerned with the extent to which buyer and seller are satisfied with the relationship and are committed to sustaining the relationship. Morgan and Hunt (1994) point out that a strong buyer-seller relationship is a product of high levels of trust and commitment present in the relationship. The authors found that both trust and commitment are key mediating variables in the establishment of a relationship.

Prior studies (Ganesan, 1994; Morgan and Hunt, 1994) have shown that trust is the major determinant of relationship commitment. However, Egan (2008: 123) argues that ‘‘*commitment is undoubtedly related to trust but it is not less clear which, if any, assumes precedence. Whether commitment is the outcome of growing trust or whether trust develops from the decision to commit to one or a few suppliers is not immediately clear’’.* Trust and commitment are central constructs in RM literature debate. Trust is a significant antecedent of customers' willingness to perform a transaction with web merchants (Jarvenpaa *et al*, 2000). Morgan and Hunt (1994: 23) conceptualize trust ‘‘*as existing when one party has confidence in an exchange partner's reliability and integrity*’’. Trust and commitment have a key role in fostering business relationship because they urge marketers to **(1)** work at preserving investments made in the relationship by cooperating with exchange partners, **(2)** resist temptations to go for alternatives that may bring short-term benefits and focus on the long-term benefits which staying and cooperating with existing partners might bring, **(3)** take high risk decisions based on the confidence that partners will not act in an opportunistic manner (Morgan and Hunt, 1994). Trust become more important in an online environment due to the uncertainty involved in e-

banking services because of the virtual context of technology, and the inseparability and intangibility involved in their consumption (Zhou, 2011b; Flavian *et al*., 2006; Berry, 1995).

A large and growing body of literature has examined the antecedents of trust in e-banking services in terms of a combination of factors which include service supplier, perceived value, consumer characteristics and situational factors (Karjaluoto *et al*, 2012; Yu 2012; Koenig-Lewis *et al*., 2010; Lee *et al*., 2007). According to Jayawardhena and Foley (2000) security of the Internet is the most important issue in customers' conduct of financial transactions. Where the Internet is concerned, security affects aspects such as obtaining payment and transmission of information (Flavián *et al*, 2006). Flavián *et al*. (2006) point out that consumers are very concerned about the use, treatment and potential transfer of their private data as well as security in the online context. However, the influence of trust antecedents could differ among consumers due to the impact of culture and context of interaction (Zhao *et al*., 2010; Crabbe *et al.*, 2009). Jarvenpaa *et al*. (2000) prove that trust has a key role in driving willingness to buy from online store but its effect varies among consumers and depending on the type of store.

Although the role of trust in affecting consumers' adoption of e-banking services is well established in literature, it was proved that users need to build initial trust when interacting with m-banking services (Zhou, 2011b; Luarn and Lin, 2005). Users' formation of trust is critical for the success of m-banking services (Laukkanen and Pasanen, 2008; Laforet and Li, 2005). On the one hand, users might lack self-efficacy and previous experience, which create concerns regarding the medium's security and privacy when they use m-banking for the first time. Therefore, they need to establish trust in m-banking to cope with security and privacy concerns (Laukkanen and Pasanen, 2008). Consumers' fears towards using m-banking services might make the return on investment less than expected. This may lead consumers to convert to other e-banking mediums due to trust fears which impede m-banking growth (Laforet and Li, 2005). Therefore, users' trust is central to m-banking adoption to achieve its business objectives.

Trust is a focal point in creating and maintaining buyer-seller relationship marketing interaction (Doney and Cannon, 1997; Dwyer *et al*., 1987). Trust is a dynamic process which builds over time. Due to the nature of m-banking services' virtual environment, trust is built on the level of perceived risk. This can be determined by network infrastructure, web and mobile applications, customer privacy issues, security of data transfer and system authentication (Lee

and Ahn, 1999). Besides that, an easy to use interface, complete and sufficient use information guidance, robust connectivity and service support can enhance customers' trust. However, lack of these system features might be associated with perceived risks which affect customers' intention to perform transactions on the mobile medium (Zhou, 2011; Lee, 2005).

In addition, Chan and Lam (2004) suggest that e-commerce suppliers can build customer trust by incorporating CRM features, which include a privacy statement to guarantee that customer information is kept confidential, security measures (e.g. digital certificate, public-key cryptography, authenticity, third-party verify signature and SSL encryption), a proper authentication mechanism, secure payment and transmission and help desk support. Technological advances have enabled many ways to ensure higher levels of security. Data encryption is a common security mechanism applied by banks, which involves protecting the transaction and information of m-banking services. This is supplemented by a combination of different security measures such as two-factor authentication. This process depends on a onetime SMS sent on the customer's registered mobile number for identity verification. Other banks offer imaged-based authentication as an alternative method of identity verification. Additionally, most m-banking services suppliers deploy Internet banking channel security standards (e.g. Secure Sockets Layer (SSL) to protect transactions. This keeps all information confidential when it is sent between service supplier and the customer's mobile device.

In this study, trust is defined as the extent to which an individual believes that using m-banking is secure and has no privacy threats. This definition is consistent with Eriksson *et al.* (2005), who define trust as a customer's perception of the security and reliability of the online banking system. M-banking involves great uncertainty and risk. Mobile networks are vulnerable to hackers' attack and information interception. Therefore, consumers need to build trust to alleviate risk and facilitate their behaviour in order to perceive value. Lee (2005) found that mobile interactivity including ubiquitous connection and contextual offerings has a significant effect on user trust. In addition, security and privacy are identified as the biggest obstacles to the adoption of e-banking services (Laukkanen, 2007a; Suoranta and Mattila, 2004; Howcroft *et al.*, 2002). Therefore, trust is more complex in m-banking than traditional banking due to its ubiquitous environment. Thus, to complete the purchase transaction, users have to trust the m-banking transaction of the bank.

2.5 RM and Customer Relationship Management (CRM)

The difference between RM and CRM in literature is nebulous, and the terms are used interchangeably (Parvatiyar and Sheth, 2001). Indeed, RM and CRM functions are practically and empirically integrated. RM is an approach to build and sustain long-term relationships that offer mutual benefits. Ryals and Payne (2001) point out that CRM utilizes information technology (IT) in implementing RM strategies. Sin *et al.* (2005: 1268) describe RM and CRM as:

''Both the CRM and relationship marketing concept can be viewed as a distinct organizational culture/value that puts the buyer-seller relationship at the center of the firm's strategic or operational thinking.''

The RM process of attracting and maintaining customer relationships (Berry, 1983), might be achieved through CRM products. These products allow suppliers better communication and personalization of their services with customers (Boulding *et al*, 2005). Christopher *et al*. (1991) note that CRM has its roots in relationship marketing, with emphasis on winning new customers via the management of cost effective relationships. CRM aim to deliver a one-to-one and direct relationship with the service supplier which provides vial information during the customer's interaction with CRM products. The application of IT helps to focus on the one-to-one relationship with customers by integrating database knowledge to enhance customer retention and business growth (Peppers and Rogers, 2004). Accordingly, CRM is associated with RM strategies by using IT to develop profitable and long-term relationships with customers (Payne and Frow, 2005).

The collection and analysis of use information is critical for successful RM. This helps suppliers to identify and meet customers' needs to build long-term connection with the firm. In addition, customers expect the value-added delivered through tailoring product and services which drive to customer loyalty (Mitussis *et al*., 2006). However, application of CRM in supporting RM strategies could vary according to the business industry, consumers' profitability segments and service or product characteristics.

2.6 CRM Definition

There is no universal consensus on the definition of CRM; its application varies depending on the business industry and objectives, leading to its being viewed as a strategic or technical option (Buttle, 2009; Payne and Frow, 2005). The CRM literature is inconsistent and

fragmented, mostly due to the lack of a common conceptualization (Ngai, 2005). CRM activities are integrated through different functions inside the organization (Winer, 2001). According to Kevork and Verchopoulos (2009) CRM can be investigated from a wide range of research disciplines such as e-CRM, e-business, information systems, supply-chain management, total quality management, customer loyalty, technology and database marketing.

Chen and Popovich (2003) present CRM as a combination of people, processes and technology which seeks to understand customers' needs. Therefore, based on various definitions of CRM, it can be divided into two main categories, CRM as a business strategy (Swift, 2000; Parvartiyar and Sheth, 2001; Chen and Popovich, 2003; Sin *et al.,* 2005; Payne and Frow, 2005; Payne, 2009; Buttle, 2009), and CRM as an information technology (Shoemaker, 2001; Peppard, 2000; Peppers and Rogers, 2004) (Table 4). The first group of explanations reflect the holistic nature of CRM's role within an organization. They define CRM activities in a broader sense. Hence, CRM from this perspective is seen as utilizing organization inputs (capabilities) to fulfil an output, that is, customer loyalty (Swift, 2000; Parvartiyar and Sheth, 2000; Chen and Popovich, 2003). Based on an extensive review of CRM definitions, Zablah *et al.* (2004) conclude that it takes one or a combination of five complementary perspectives: CRM as strategy, as philosophy, as process, as an information technology application and as an organizational capacity. Accordingly, CRM conceptualization and application might take different perspectives according to the business's strategic objectives.

Table 4 Two perspectives of CRM definitions.

Author/date	CRM Definition as a Business Strategy
Swift (2000)	CRM is an enterprise approach to understanding customer behaviour by a meaningful communication which aims to improve customer acquisition, customer retention, customer loyalty, and customer profitability.
Parvatiyar & Sheth (2001)	CRM provides an extensive marketing strategy to acquire, retain and extend partnerships with selected customers to create superior value for firm and customer alike.
Chen & Popovich (2003)	CRM is a business strategy which leverages marketing, operations, sales, customer service, human resources and finance, as well as information technology and the Internet to maximize profitability of customer interactions.
Sin *et al*., (2005)	CRM provides a wide a broad strategic process which enables companies to identify, acquire, retain and cultivate partnerships with profitable customers throughout building and maintain long-term relationships with them.

Payne & Frow, 2006	CRM provides enhanced opportunities to use data and information to both understand customers and co-create value with them. This requires a cross-functional integration of processes, people, operations, and marketing capabilities that is enabled through information, technology and applications.
Payne (2009)	CRM is a comprehensive business strategy which seeks to create, develop and enhance customers relationships with carefully targeted customers in order to improve customer value and corporate profitability.
Buttle (2009)	CRM is the core business strategy that integrates process and functions and external networks to create and deliver value to targeted customers at a profit. It is grounded on high quality customer related data ad enables by information technology.
CRM Definition as Information Technology	
Peppard (2000)	CRM activities aim at advances in gathering customers' information and communications by technology which provides the promise of one-to-one relationships, customer-value analysis and mass customisation.
Shoemaker (2001)	CRM can be viewed as an application of technology to enhance firm ability to increase sales, marketing activities and customer service to build relationships with customers.
Rigby *et al.* (2003)	CRM permits organizations to collect customers' information over time about valuable customers to increase customer loyalty through customized marketing products and services.
Peppers & Rogers (2004)	CRM is an approach of one-to-one relationship marketing, responding to each customer's needs and identifies what else is known about the customers.

(Source: Author).

However, CRM nurtures buyer-seller long-term relationships and concentrates on treating customers as sources of firm profit (Kaushik, 2013; Coltman, 2007). Laudon and Laudon (2004) point out that CRM in both business and information technology disciplines uses information systems to integrate all of the enterprise processes to interact with customers in marketing and services. It is an integration framework which establishes and integrates contact channels with information technology, which categorizes customers into finer groups to fulfil their needs with a custom-designed set of product features or services (Peppers and Rogers, 2004). This treatment of CRM can link business objectives with customers' needs to increase satisfaction and loyalty (Buttle, 2009; Parvatiyar and Sheth, 2001).

There seems to be compelling reason to argue that CRM is not merely a technology (Reinartz *et al*., 2004). More attention is directed to CRM as an organizational *capability* that contributes to the creation of a competitive advantage (Day, 1994). Day (1994) points out that *capability* has four sources: employees' knowledge and skills, technical systems which include

information systems and formal procedures for dealing with problems. Under this view, Peppers and Rogers (2004) argue that firms need to acquire and integrate resources that develop their responsiveness to the changing needs of customers. The capabilities are those required for the firm to meet the necessary requirements to compete in a given market (Thompson and Strickland, 2004). Thompson and Strickland (2004: 118) present examples of competitive capabilities including the development of new innovative products for the markets, a firm's agility to respond to shifting market conditions and emerging opportunities and high customer service ability of firm representatives. Thus, the firm's business vision might be the basis of guiding the capabilities. As Porter (1998) points out, the vision bridges the gap between where the firm is and where it wants to be. Further, Porter (1998) argues that the cooperation of various capabilities is hard to imitate by other competitors and, therefore, would provide the basis for a stronger position in the market place. Coltman (2007) notes that CRM is nested within a complicated organizational system of interrelated and interdependence resources that is used to generate competitive advantage.

Based on the discussion above, it was found out that CRM explicitly recognizes the long-term value of current and potential customers. It seeks to generate profits with customers through targeted marketing actions directed toward developing, maintaining and sustaining successful buyer-seller relationships. Therefore, there is a need for an in-depth understanding of underlying capabilities of banks to create and deliver value to customers in Saudi Arabia.

2.7 CRM Seller's Benefits

By implementing effective CRM, the profitability of the company might be cultivated by enhancing customer loyalty, cost reduction and *customized offers* (Kim *et al*., 2012). Through CRM initiatives, value is created for suppliers and consumers alike. According to Boulding *et al*. (2004) the core objective of CRM is 'dual creation of value'. In other words, the company should not only focus on maximizing customer value but rather it should create value for customers.

From the strategic perspective, CRM's role is to develop strategies for nurturing customer relationships through a dual creation of value (Boulding *et al*., 2005). Payne and Frow (2005: 145) describe the process of value creation as a transformation mechanism which deploys the business and customer strategies into action at the tactical level. This process contains three components: **1)** the value which the customers are receiving from the company, **2)** the value

which the company is receiving from the customers, **3)** the management of interactions between the processes around the co-creation of products and market segmentation (Figure 5).

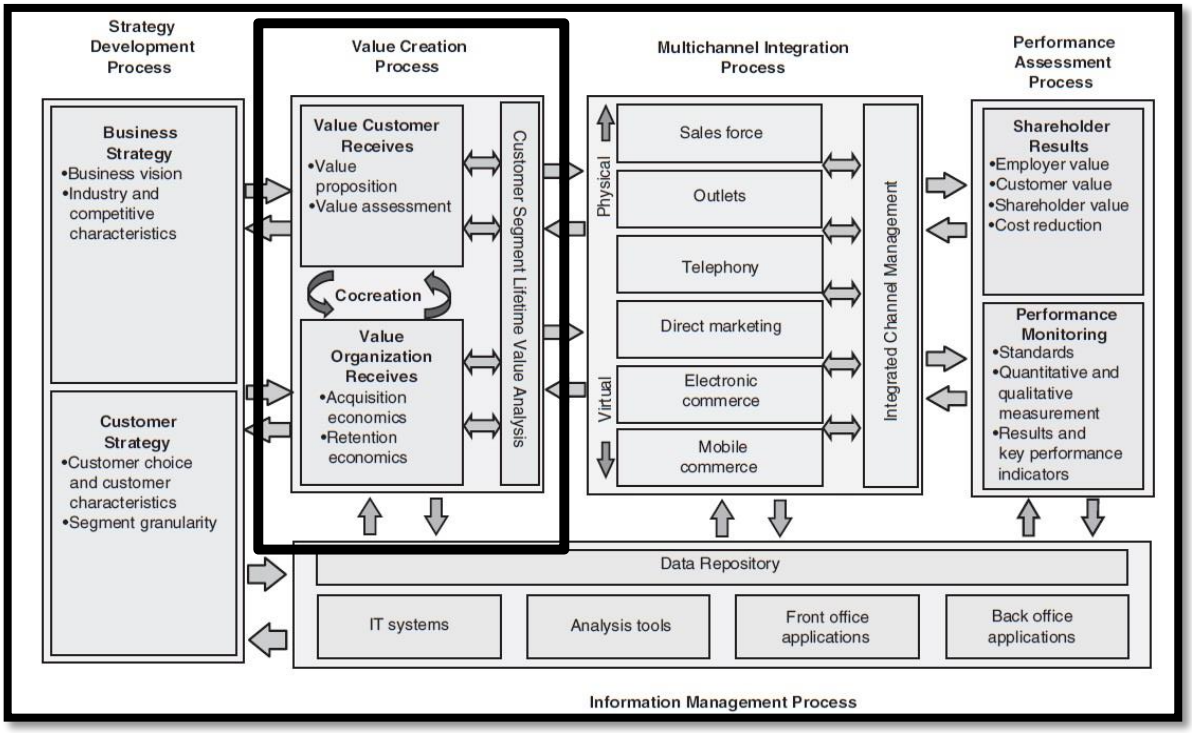


Figure 5 A framework of CRM role in value creation *(source: Payne & Frow, 2005: 171).*

However, delivering an acceptable value to customers in e-banking services requires an effective CRM system (Payne and Frow, 2005; Schierholz *et al*., 2007; Sinisalo *et al*., 2006). This is reflected in customers' relationship with the supplier when they perceive a product or service's core benefits during consumption (Lindgreen and Wynstra, 2005). In addition, Sullivan (2000) asserted that in order to deliver an acceptable value in e-banking services, banking services suppliers should go beyond fulfilling customers' banking needs and put more efforts into bank resources. Payne and Frow (2005: 167) elaborate on the value creation process in CRM by saying;

"The value creation process is a crucial component of CRM because it translates business and customer strategies into specific ***value proposition statements*** *that demonstrate what value is to be delivered to customers, and thus, it explains what value is to be received by the organization, including the potential for co-creation."*

Through CRM systems, value is created for both the supplier and the customer. Value creation entails differentiation of what value the supplier can offer to customers and the value the customer provides to the firm (Payne and Frow, 2005). Maximizing customer lifetime value (CLV) anticipates the profitability of a customer during the relationship with a firm (Payne and

Frow, 2005). Boulding *et al*. (2005) expound that CLV changes over the time span of a relationship and requires integration of the firm with the entire CRM process. Therefore, the CRM system necessitates an ongoing monitoring of buyer-seller as the relationship evolves through its stages.

Companies use CRM to improve sales and marketing efforts to customers by systematic management. The goal of this kind of process is to offer customers a higher level of satisfaction than the one provided by competitors (Winer, 2001). Richards and Jones (2008: 123) summarized seven core benefits which were identified as value drivers of CRM (Table 5). For the purpose of the current study, they are classified in chronological order. These are;

1. Improved ability to target profitable customers;
2. Integrated offerings across channels;
3. Improved sales force efficiently and effectiveness;
4. Individualized marketing messages;
5. Customized products and services;
6. Improved customer service efficiency and effectiveness; and
7. Improved pricing.

Delivering superior customer value is concerned in building and sustaining competitive advantage through driving CRM performance (Wang *et al*., 2004). Slater (1997) points out that companies should reorient their operations towards the creation and delivery of superior customer value if they are to improve their CRM performance. Deck (2001) argues that the objective and the strategy of CRM should assist the companies to use technology and human resources to understanding the behaviour of customers and deliver the value to them. In this way, the company can provide better customer service, cross-sell products effectively, attract new customers and increase customer revenues. According to Kim *et al*. (2003) customer value describes both tangible and intangible benefits gained from CRM activities, which help to arrange the relationship with the customer successfully. They point out that customer value can be achieved through value added by relevant information in virtual communities, a loyalty program, and an attractive bundling of different products. Further Kim *et al*. (2003) indicated that, in order for an organization to determine the value of its customers, the organization needs to analyze such information as marketing campaigns, number of retained customers, and net sales. Moreover, CRM initiatives should provide mutually beneficial value to the customer and the organization in particular.

Table 5 Summarizes seven drivers of CRM contributions from various authors.

Authors/date	**Core CRM benefits**							
	Target	**Integrate**	**Sales**	**Messages**	**Customize**	**Customer Service**	**Pricing**	
Rivers and Dart (1999)			✓		✓		✓	✦ Reduces administrative duties ✦ Improves sales effectiveness ✦ Improves pricing
Sheth, Sisodia and Sharma (2000)				✓			✓	✦ Improves customization of marketing efforts to individual customers ✦ Enhances ability to understand costs
Parvatiyar and Sheth (2000, 2001)	✓	✓		✓		✓		✦ Improves customer segmentation ✦ Enables key account management and business development ✦ Improves customer loyalty ✦ Improves cross-selling/up-selling ✦ Enables co-branding, joint-marketing and strategic alliances
Sheth and Sharma (2001)				✓			✓	✦ Improves the financial efficiency of marketing efforts
Winer (2001)				✓				✦ Enables better customer attraction, conversion and retention of target customers
Wilson, Daniel, and McDonald (2002)		✓					✓	✦ Improves channel choice ✦ Allows multi-channel integration ✦ Enables individualized pricing
Sabri (2003)			✓		✓			✦ Enables personalized products and services ✦ Improves sales force efficiency ✦ Enhances product development

Verhoef (2003)						✓		• Improves customer commitment, satisfaction and loyalty
Zikmund, McLeod, and Gilbert (2003)	✓	✓			✓	✓	✓	• Improves customer focus • Improves retention efforts • Increases share of customer • Enhances long-term profitability • Enables continuity across channels • Personalizes service • Enhances satisfaction
Rigby and Ledingham (2004)	✓			✓	✓			• Improves information sharing within the selling company • Automates all aspects of customer relationship cycle (development of offering, sales, superior experience, retention and win-back, and targeting and marketing)
Reinartz, Krafft and Hoyer (2004)	✓					✓	✓	• Improves pricing • Enables segmentation based on economic value of customer • Improves resource allocation to accounts
Thomas, Blattberg, and Fox (2004)	✓			✓				• Enables companies to win-back lost customers
Thomas, Reinartz and Kumar (2004)				✓	✓			• Improves marketing effectiveness • Enables customization of products and services • Improves customization of marketing efforts to individual customers
Tanner, Ahearne, Leigh, Mason and Moncrief (2005)	✓	✓					✓	• Improves customer segmentation and valuation • Enhances acquisition, development and retention of customers • Enables better allocation of resources across the customer portfolio • Enhances communication across multiple selling channels
Jones, Brown, Zoltners, and Weitz (2005)			✓		✓	✓		• Improves customization of services and product offerings • Enhances ability to create long-term partnerships • Improves salesperson efficiency and effectiveness

Jones, Stevens, and Chonko (2005)	✓	✓		✓		✓		• Improves ability to find, obtain and keep customers • Increases salesperson efficiency • Assists in gathering competitive intelligence • Coordinates communication • Enables salespeople to have a lifetime value perspective
Eggert, Ulaga, and Schultz (2006)		✓			✓		✓	• Improves support for product development • Increases supply-chain efficiencies via personal contact • Enhances supplier know-how
Spekman and Carraway (2006)		✓						• Enhances decision making • Improves supply-chain planning and integration
The Sales Educators (2006)			✓		✓	✓		• Enhances customer knowledge and feedback • Supports new product/service development • Improves customer solutions and relational values

(Source: Richards and Jones, 2008: 124).

2.8 Seller's Mobile CRM (m-CRM) Conceptualization

This section discusses the role of CRM through the mobile medium. In this study, it is argued that value creation between the bank and customer cannot be exactly the same through the mobile medium as it would through other channels. This is due to mobile value proposition characteristics (see part 3.7.3). Therefore, this section first discusses m-CRM relevant definitions, and subsequently, value related studies.

The age of mobile communications and innovations has a pivotal role in business success. This is mainly due to smartphones' attributes which represent a dynamic communication environment. There is a growing demand from m-CRM to integrate online and offline CRM because of its characteristics such as mobility and ubiquity (Mirbagheri and Hejazinia, 2010). For firms, m-CRM overcomes existing traditional CRM limitations by enabling the ability to obtain customer information anytime, anywhere (Awasthi and Sangle, 2011). Similarly, Ranjan and Bhatnagar (2009) assert that firms need the mobility of their existing CRM systems to achieve profit and accurate results. Further, m-CRM has been gaining immense popularity as it helps business to access customer related information at the place where it is actually required (Ranjan and Bhatnagar, 2009).

To improve m-CRM understanding, this study focuses on supply and demand sides from a perceived value perspective to address limitations in m-CRM research. Previous studies have mainly focused on the customer side and generally proposed research models from the technology acceptance model, ignoring the role of m-CRM characteristics in managing buyer-seller relationship (Karjaluoto *et al*., 2014; Luarn and Lin, 2005). Accordingly, it is necessary to separate the concept of m-CRM from other mediums to present a vivid conceptualization of its value proposition to suppliers. The distinctive features of the mobile medium make its uses different from other electronic mediums. This has resulted in a call for exploiting mobile medium features in managing buyer-seller relationships (Table 6).

Table 6 Call for understanding role of mobile medium in CRM context.

Previous research	Author
Mobile channel provides an appropriate approach for CRM implementation.	Kannan *et al.* (2001)

Mobile customers relationship management is crucial for business thriving and to compete and retain customers who are mobile users.	Martyn (2001)
Call for research on how organizations use new mobile technologies when engaging with customers in the CRM context.	Payne and Frow (2005)
What is the current and future role of different channels in CRM?	Frow and Payne (2009)

(Source: Author)

In its broader sense, m-CRM shares the same functions as other channels within CRM (Valsecchi *et al.*, 2007). However, each electronic medium has its own distinguishing features which can fulfil certain task performance. Kannan *et al*. (2001) noted that the mobile medium enables firms to build and maintain customers' relationships in four ways:

- Personalize content and services;
- Track customer and users across media over the time;
- Provide content and service at the point of need;
- Provide content with highly engaging characteristics.

According to Sinisalo *et al.* (2006), using the mobile medium can support the firm to advance activities with customers in the sense of saving time and cost. In addition, Sinisalo *et al.* (2006) assert the role of communication in the mobile medium in establishing and nurturing profitable customer relationships. Hence, they view m-CRM as;

> *[. . . Communication, either one-way or interactive, which is related to sales, marketing, and customer service activities conducted through the mobile medium for the purpose of building and maintaining customer relationships between a company and its customer(s)] (Sinisalo et al., 2006: 774).*

From Sinisalo *et al.'s* (2006) perspective, m-CRM arguably involves multiple characteristics. Communication is emphasized for the firm's purpose of building and nurturing relationships with customers. This might involve different tasks and service activities through the mobile medium. The initiation of communication is mutual and one party must be human. Communication is launched via mobile technologies (e.g. short message service SMS, multimedia service MMS, JAVA application etc.). Therefore, Sinisalo *et al*. (2006) posit that the mobile medium is depicted as a complementary channel for the CRM function promotion.

Similarly, Smith (2007) explores CRM in the mobile medium and found that mobile communication supports CRM's function in managing organization customers' relationships. Smith (2007) finds that mobile communication not only offers interactions with customers at any time and any place but further offers the opportunity for closing the customer lifecycle, involving the customer in the business process.

Valsecchi *et al*. (2007) assert that m-CRM enables personalized and interactive communication with customers. This allows suppliers to improve their customer intelligence by making it easier to gather data about each customer. Thereby, it helps the supplier to better understand customers' needs, develop customization and improve interaction with customers by retaining a record of their inquiries, transactions, complaints and problems solved (Valsecchi *et al.*, 2007). Camponovo *et al*. (2005) assert that m-CRM aims to nurture customer relationships, acquire or maintain customers, support marketing, sales or service process and use wireless networks as the medium of delivery to customers.

Consequently, m-CRM allows customers to access the firm's systems from mobile devices (e.g. mobile web) to perform certain tasks. In the banking service sector, m-CRM becomes a priority to improve relationship productivity and enhance customer relationships. According to Valsecchi *et al*. (2007) MB services represent a perfect conduit for m-CRM as they confirm that mobile technology can be employed for creating, maintaining and enhancing the relationships with customers by providing services on their most personal devices such as mobile phones or PDAs. Therefore, the importance of CRM in value addition in financial services is mainly through service customization (Chen and Ching, 2007). The underlying argument in favor of customization in the buyer-seller relationship dyad is that service suppliers identify profitability from meeting segments' particular needs and customized offerings based on customer value lifetime, which enables suppliers to maintain their competitive advantages (Coltman, 2007) and sustain customer loyalty (Coelho and Henseler, 2012).

2.9 CRM and Value Related Studies

By examining the literature and studies related to value and CRM, the following gaps of knowledge are identified. Figure 6 presents a pictorial classification of relevant studies that addressed CRM and those that examined the concept of value.

- Although a considerable amount of literature has been published on CRM consequences (e.g. customer loyalty), there is still no consensus among these studies on mechanisms underlying value creation factors from a CRM perspective. This can be ascribed to the differences of cultures in which studies were carried out and the different concepts of CRM adopted by those researchers. Furthermore, research methodology and philosophical position employed can be other factors that affect the outcomes of these studies.

- In addition, researchers have asserted the role of CRM in adding value to e-banking services; no extant research addressed the factors facilitating the implementation of mobile-based CRM in m-banking services in general and in the Saudi Arabian context in particular. Company benefits from m-CRM is well established in literature which for example mobile services (e.g. SMS communication) can be deployed to combine other existing channels to enhance banks' CRM (Duran, 2010; Valsecchi *et al*., 2007). As this study review pinpointed, there is relatively little knowledge on m-CRM especially with the development of mobile technology (Yang, 2012; Payne and Frow, 2005).

- S-d logic asserts the importance of the customer value-creating process and involves the customers as value co-creators (Vargo and Lusch, 2004). S-d logic conceptualizes 'value' as being created by the interactions with customers taking place during the consumption experience. Thus, value emerges as customers' creation of value in-use. Under this perspective, companies' role is to facilitate and offer value propositions that have the potential to co-create value in partnership with customers (Vargo and Lusch, 2008). However, the proliferation of m-commerce technologies (e.g. m-application, 4G wireless networks), might contribute to better opportunities to value creation. There is still a lack of understanding about how value is constructed from a customer value creation perspective (Payne *et al*, 2008; Sandström *et al*., 2008). Accordingly, further research is required on value in-use (i.e. the experience of using a service) (Grant and O'Donohoe, 2007; Gummerus and Pihlström, 2011).

- Further, culture in developed countries in general and in Saudi Arabia in particular contributes in facilitating and implementing successful deployment and adoption of mobile technology in organizations. In addition, cultural differences that stimulate the adoption of new mobile services based on new technologies that bring value to mobile users and create business opportunities for the mobile industry studies are recommended and would be an interesting area for investigation for m-commerce literature (Ngai and Gunasekaran, 2007). Hence, researchers call for further studies in different national contexts to understand how organizations use new mobile technologies when engaging with customers in the CRM context (Cheah *et al*., 2011; Payne and Frow, 2004; Payne and Frow, 2005).

- Moreover, e-banking services adoption literature showed that most studies and publications originated in Western and industrialized countries (Sinisalo *et al.* 2006; Lindgreen and Antioco, 2005; Peppard, 2000; Parvatiyar and Sheth, 2001; Chen and Popovich, 2003). In contrast, little is written in developing countries such as Saudi Arabia (Al-Jabri and Sohail, 2012; Al-Smadi, 2012). This gap is particularly apparent in the Arab world (Jabnoun and AL-Tamimi, 2003). A primary reason might be the limited publications and relevant studies particularly in the Saudi Arabian research context and the newly relevant introduction of the electronics and technological infrastructure in the Arab world.

This requires filling the gap of knowledge in undersrtanding of the relationship between customer needs and service offerings, and how these genetrate value. Factors that explain suppliers' value creation process which arises from the interaction with customers in mobile services, who represent the current or potential users of services. Creating and delivering competitive value in m-banking services requires suppliers to manage customer relationships through mobile customer relationship management (m-CRM) to improve customers' experience with service delivery and encounter (Payne and Frow, 2005). The literature indicates that there is no consensus on factors or criteria that enable suppliers to create and deliver the best possible value via CRM.

As an academic research stream of m-CRM is relatively evolving (Sinisalo *et al*. 2006), there is still scarcity in this academic field, which has received a call from the research community to address the roles of mobile mediums in CRM, which is critical to the business continuity for long-term success (Yang, 2012; Kannan *et al*. 2001; Newell and Lemon, 2001). Moreover, e-

banking services adoption literature showed that most studies and publications were conducted in Western and industrialized countries (Sinisalo *et al.* 2006; Lindgreen and Antioco, 2005; Peppard, 2000; Parvatiyar and Sheth, 2001; Chen and Popvich, 2003). In contrast, little is written in developing countries such as Saudi Arabia (Al-Jabri and Sohail, 2012; Al-Smadi, 2012). This gap is particularly apparent in the Arab world (Jabnoun and AL-Tamimi, 2003). A primary reason might be the limited publications and relevant studies particularly in the Saudi Arabian research context and the newly relevant introduction of the electronics and technological infrastructure in the Arab world.

Despite the potency of mobile services, there is a lack of understanding about the ways mobile service can create value to enhance consumers' everyday life (Grant and O'Donohoe, 2007; Anckar and D'Incau, 2000). It is not understood how value is constructed from a customer value creation perspective (Sandström *et al*., 2008; Kleijnen *et al*., 2007). As a new form of mobile technologies, mobile applications services are growing rapidly with the support of 4G wireless networks, which need further research and conceptual framework development (Yang, 2012). Smartphones' incremental growth brings new service concepts including mobility, flexibility, connectivity and efficiency to both consumers and business users alike (Verkasalo and Hämmäinen, 2007). Accordingly, there is a need for more research to identify value in-use in using mobile services. Value in-use is based on specific use situations with the help of a product or service offering to achieve a desired end (Woodruff and Gardial, 1996). Mobile devices (e.g. smartphones) are means of accomplishing customers' purposes of using a service. In this study, the experiential use perspective is adopted to explore customers' value creation process in mobile applications services.

Exploring together perceived value determinants of m-banking applications services revealed from the demand perspective, and factors affecting the ability of banks to create and deliver the value of m-banking services would assist in providing a dyadic framework which guides value creation of m-banking services in an e-banking services context.

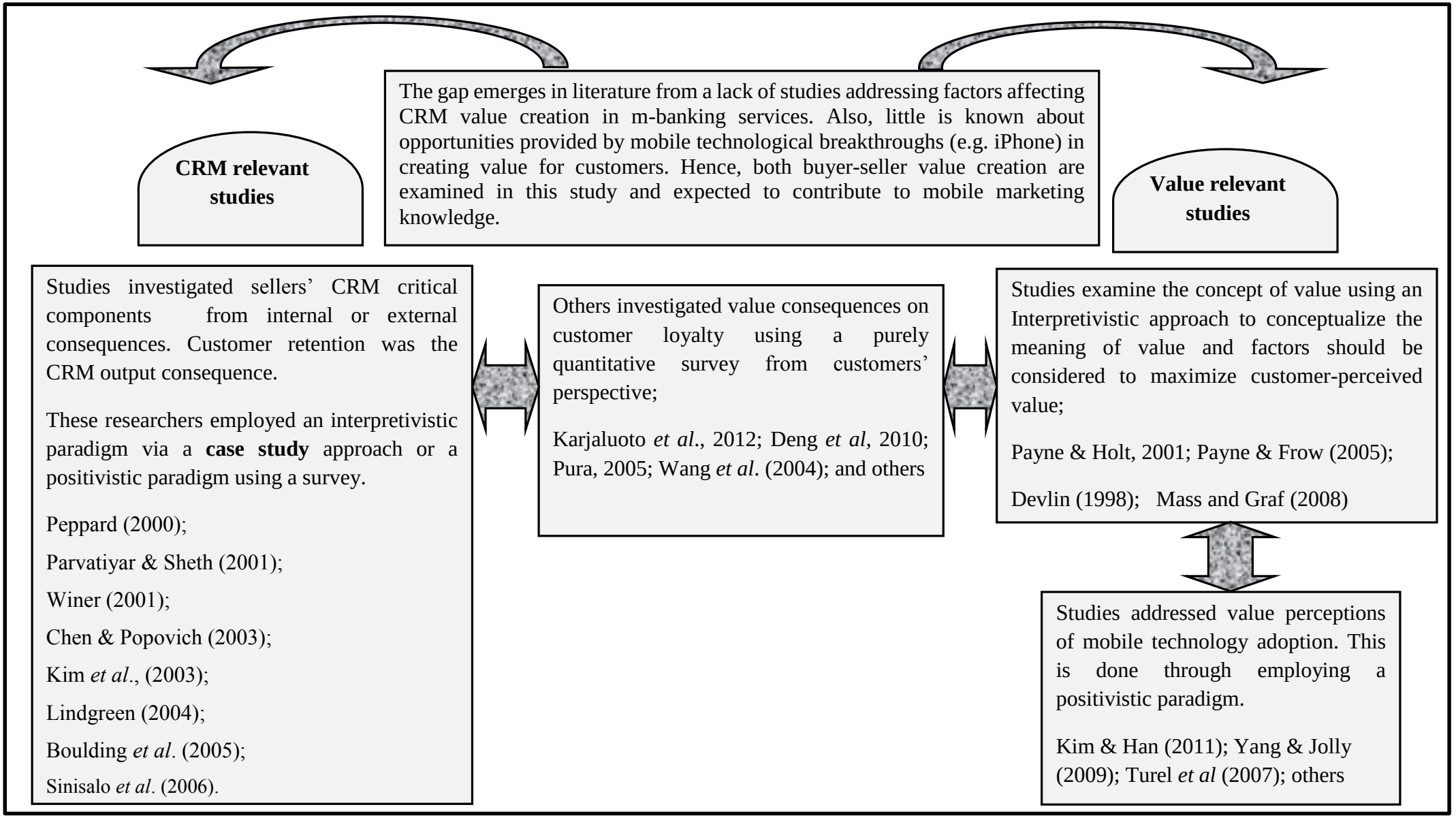


Figure 6 Relevant research that examines CRM and value.

CHAPTER THREE
AN OVERVIEW OF CUSTOMER BUYING BEHAVIOUR IN MOBILE SERIVCES

Table 7 Current chapter position in the research.

Chapter One	Introduction
Chapter Two	Role of Customer Relationship Management (CRM) in value creation and delivery
Chapter Three	An overview of customer buying behaviour in mobile services context
Chapter Four	Research context: Saudi banking sector overview and MB services
Chapter Five	Research methodology and data collection methods design
Chapter Six	First phase data anlysis: suppliers' persepctives
Chapter Seven	Second phase data analysis: part one
Chapter Eight	Second phase data anlysis: part two
Chapter Nine	Discussion and interpretations of findings
Chapter Ten	Conclusion, recommendations and research contribution

3.1 Introduction

The previous chapter presented the role of suppliers in facilitating customers' value creation. This chapter aims to put the research problem into perspective by reviewing related literature and examining consumer behaviour towards mobile services acceptance, usage and adoption. It prepares the foundation for understanding the characteristics and categories of mobile services. Also, the chapter evaluates the general consumption motivations towards mobile services value perceptions. It explains mobile services adoption results from a value perspective and shows that customer value drivers might be both instrumental and experiential/hedonic.

After that, this chapter introduces the service-dominant logic (S-d logic) and the role of customer in value creation. Central to the issue of value in-use from a S-d logic perspective, this chapter elaborates on the concept of customer perceived value. Then, it presents relevant literature related to customer participation in service delivery, and highlights the issues related to the conceptual definition of customer participation. In addition, the current chapter discusses the main antecedents of customers' value creation in mobile services context. **Figure** 7 presents the main structure of this chapter.

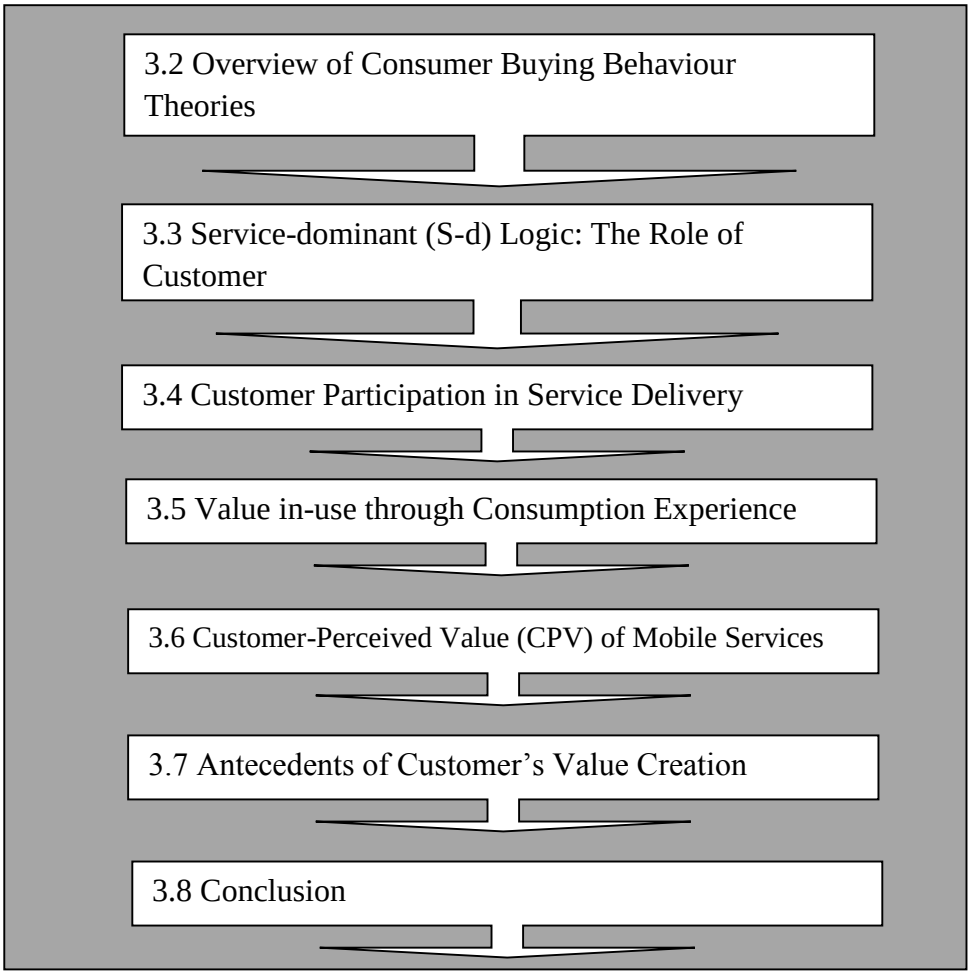


Figure 7 Structure of Chapter Four.

3.2 Overview of Consumer Buying Behaviour Theories

This section presents a review of the most popular theories relating to explaining consumer buying behaviour. It is envisaged that these theories will help to predict customers' attitude and behavioural intention to use m-commerce and MB services. Bobbitt and Dabholkar (2001: 425) advise that marketers need to be aware of what affects consumers' attitudes and behaviour towards using technology. Understanding the predictors of customers' attitude is imperative, as it is argued that attitude has a strong, direct and positive effect on consumers' intentions to actually use the new technology or system (Shih and Fang, 2004; Bobbitt and Dabholkar 2001).

In its broader sense, consumer behaviour is related to consumers' selection, buying motives and actions to particular products or services at the marketplace. Consumer behaviour is defined as *''the dynamic interaction of affect and cognition behaviour and the environment in which human beings conduct the exchange aspects of their lives''* (Peter and Olson, 2002: 162).

It aims to understand what causes and stimuli influence the consumer decision-making process. Although plenty of consumer behaviour models are found in literature, Assael (2004: 22) maps the consumer's decision-making process (Figure 8). His model depicts general consumer behaviour which is affected and controlled by both the consumer's individual influence and environmental influences. It postulates that consumers are influenced by their perceptions, attitudes, characteristics, lifestyle and personality. As a result of decision-making, consumers respond with either action (purchase) or non-purchase. Their response influences not only their future decision-making, but also the greater environment, often through word of mouth (Assael, 2004).

Assael (2004) points out that consumer formation of a purchase decision is influenced by several elements, namely (1) the role of culture, which has the most influence and the most extensive in the behavior of consumers so that marketers need to understand the influence of culture, sub-culture, and social class of consumers; (2) social influences, which need to be considered when designing a marketing strategy because these factors can affect consumer responses; (3) personal factors, which include age and stage of the life cycle, occupation, economic situation, lifestyle, personality, and self-concept, which affect what is purchased; and (4) psychological factors, including motivation, perception, learning and beliefs and attitudes that also influence the selection of consumer purchases.

The consumer behaviour model underpins the understanding of new consumers' patterns and preferences. Also, it helps to determine reasons for mobile services adoption and usage at the individual level. Assaal (2004) posits that consumer behaviour includes micro and macro factors which take into consideration the role of cultural values towards the consumption decision. In addition, the decision of individuals to adopt a new innovation is determined by perceived product attributes. The adoption decision might influence others within the reference group and across groups to buy or use particular product. In a recent study, Lee (2014) examines factors influence smartphones adoption among college students. The findings indicate positive relationships of peer and family influence and self-innovativeness, and attitude towards smartphone adoption. According to Bearden and Etzel (1982) the level of others' influence on a person's consumption behavior varies depending on whether a good is publicly consumed or it is privately consumed. In other words, individuals are more influenced by others when products are used publicly. The mobile phone is a publicly-used good which may reflect consumers' personality through brand choice. Hence, it is likely that the influence

of others is reflected by the need for psychological associations to belong to a particular reference group.

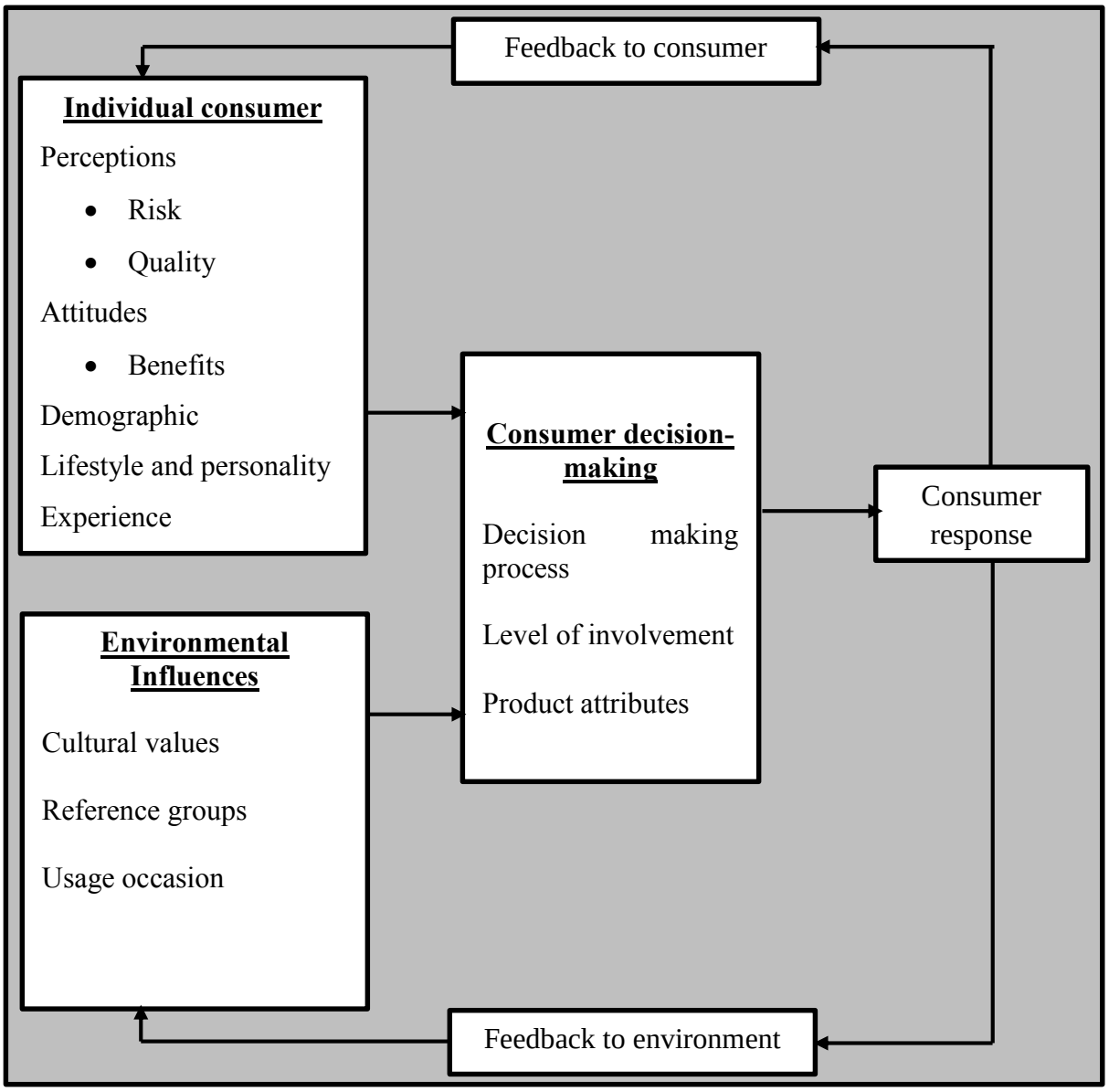


Figure 8 Factors influencing consumer behaviour *(source: Assael, 2004: 22).*

Customers' attitudes may be formed as a result of a positive or negative personal experience. For marketers, attitudes represent a crux and a filter through which every product and service is scrutinized. However, the most basic attitudinal theory which has been widely considered to have a significant theoretical and practical approach is the Theory of Reasoned Action (TRA) postulated by Ajzen and Fishbein (1980). It hypothesizes that behaviour is predicted by a person's intention to engage in a given behavior. Intention, in turn, is predicted by two constructs; the person's *attitude* towards the outcome of the behavior and opinions of the

person's social milieu, which is known as *subjective norm* (Ajzen and Fishbein, 1980). Fishbein and Ajzen (1972: 488) describe attitude as follows:

''A person learns or forms beliefs about an object. These beliefs influence his attitude toward the object attitude is viewed as a compound in which the elements are beliefs and the affective value of the compound (i.e. attitude) is some function of the affective value of the constituent beliefs. This attitude constitutes a predisposition to respond in a generally favorable or unfavourable manner with respect to, or in the presence of, the object''.

Attitude towards adopting an innovation is derived from a person's belief that adopting the innovation will lead to certain consequences (Ajzen and Fishbein, 1980). It indicates a person's positive or negative evaluation about performing a given behaviour. TRA postulates that intention to perform a particular behaviour might be higher when a person expresses a positive attitude (Ajzen and Fishbein, 1980). Subjective norms refer to the belief about whether most people approve or disapprove of the behaviour (Ajzen and Fishbein, 1980). It relates to a person's beliefs about whether peers and people of importance to the person think he or she should engage in the behaviour. TRA suggests that people often act based on their perception of what others think they should do, and their intention to adopt a behaviour is potentially influenced by people close to them (Figure 9).

However, TRA was criticised for its inability to scrutinize social factors which might be determinants of individual behaviour (Sheppard *et al*., 1988). Also, it ignores situational factors that could affect behaviour in a particular setting (Foxell, 1997). To overcome this shortcoming, Ajzen (1991) proposed an additional factor in determining individual behaviour in the Theory of Planned Behaviour TPB; *perceived behavioural control* as a determinant of behavioural intention (Figure 10). *Perceived behavioural control* ''is an individual's perception of the ease or difficulty of performing a behaviour of interest'' (Ajzen, 1991). TPB uses attitudes, subjective norms and perceived behavioural control to predict 'intention'. It assumes that an individual's intention, when combined with behavioural control, will help predict behaviour with greater accuracy than other models (Ajzen, 1991). According to TPB, behavioural control consists of two main facets. First, it conceptualizes individuals sufficiently knowledgeable skilled and able to perform some acts. Second, behavioural control depends on the extent to which individuals feel that other factors such as cooperation of colleagues and resources availability could facilitate or inhibit the act (Ajzen, 1991). In spite of this, both theories have

ben employed in many different studies to explain the factors affecting m-banking services adoption (Table 8).

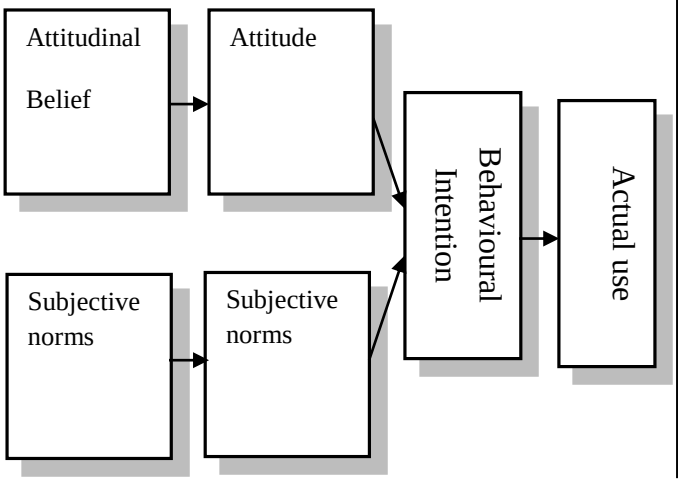


Figure 9 Theory of reasoned action TRA *(source: Shih and Fang, 2004).*

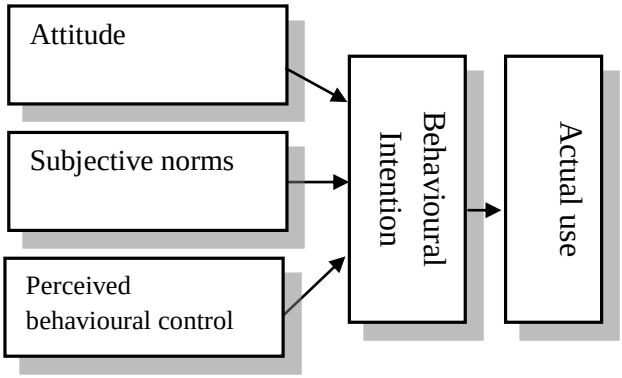


Figure 10 Theory of planned behaviour TPB *(source: Shih and Fang, 2004).*

However, to get over the impairments of both TRA and TPB, the Theory of Decomposed Planned Behavior (TDPB) was introduced (Taylor and Todd, 1995). TDPB builds upon TRA through breaking down the structure of attitude, subjective norms and perceived behavioural control (Taylor and Todd, 1995). Attitudinal belief was decomposed into three constructs; relative advantage, complexity and compatibility. Behavioural control was interpreted by facilitating conditions and efficacy which support performance of a certain task, such as time and money (Shih and Fang, 2004). Subjective norm is decomposed into normative belief which is social or external influence. It might involve friends' and family members' word-of-mouth or derive from external sources such as mass media. This resulted in more details of attitudes and behavioural intention determinants. TDPB aims to explain the behaviour of individuals based on the relationship between attitudes, intentions and the actual behaviour. It postulates attitudes, subjective norms and behavioural control as the elements which help to understand the reasons explaining individuals' actions. In brief, TDPB offers a comprehensive approach to understand the factors affecting individuals' decision to use technology information (Suoranta and Mattila, 2004). TDPB succeeded in explaining the adoption intention of m-banking services by including elements from the Technology Acceptance Model TAM (Davis,

1989) and Diffusion of Innovation Theory DIT (Rogers, 1995) to identify the cross-correlation of the predictive variables (Puschel *et al.*, 2010). TDPB's main constructs are presented in Figure 11.

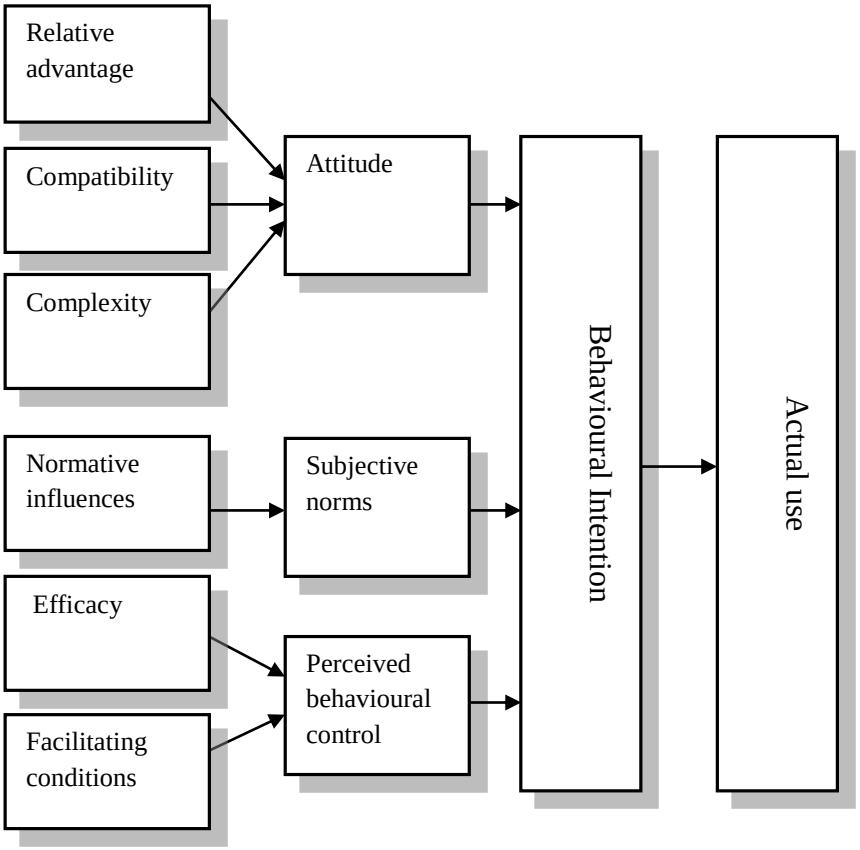


Figure 11 Decomposed theory of planned behaviour (DTPB) *(source: Shih and Fang, 2004).*

Although TRA is viewed as an abstract theoretical standpoint, it constitutes the basis of one of the most applied models in new technology acceptance studies; the Technology Acceptance Model (TAM). Davis (1989) introduces TAM as an extension of TRA in order to help explaining and predicting user behaviour of information technology in work place. TAM provides a basis for tracking the impact of external factors on internal beliefs, attitude and behaviour (Davis, 1989). It has been examined in different fields of new technology acceptance. TAM constructs primarily explain determinants of new technology adoption that in general are capable of explaining users' behaviour and intention across a broad range of end-user computing technologies while at the same time being both parsimonious and theoretically justified (Ngai and Gunasekaran, 2007). TAM considers attitude as a function of two variables:

perceived usefulness (PU) and perceived ease of use (PEOU), as determinants of user acceptance. Davis (1989: 320) defines perceived usefulness as:
''the degree to which a person believes that using a particular system would enhance his or her job performance''.

Davis (1989: 320) defines perceived ease of use as:
''the degree to which a person believes that using a particular system would be free of effort''.

Notwithstanding, several studies have applied TAM as a theoretical standpoint to improve its predicting power (Table 8). It has been tested in many empirical researches which offer promising reliable results (Legris *et al*., 2003). However, TAM was criticized for being too parsimonious as it includes only two variables (Luarn and Lin, 2005). Taylor and Todd (1995) note that the suitability of TAM for predicting users' attitudes needs to be re-assessed as the main TAM constructs ignore usage-context factors that might affect technology acceptance in a specific usage context. Along similar lines, Pedersen *et al.* (2002) point out that although general technology standpoints like TAM are important, they do not take the specific context of m-commerce services into consideration, which is a focal point in mobile services.

To examine TAM's prediction of actual usage, Turner *et al.'s* (2010) conducted a meta-analysis of 79 empirical studies and found that PEU and PU are less likely to be correlated to predict actual usage than behavioural intention; and recommended researchers using TAM to take care when they want to measure perceived use and not actual usage. Similarly, Bagozzi (2007), Benbasat and Barki (2007) question the theoretical strength of the intention-actual use relationship and observed that behaviour should be treated as a means to a more terminal goal. They call for a deepening of adoption research by providing variables which can explain what makes technology useful for end-consumers. They conclude that research should include *'why'* individuals find new technology worthwhile using. Furthermore, Chuttur (2009) suggests that research on TAM might have reached a saturation point and advise future research to focus on developing new models that would exploit TAM's strengths and avoid its weaknesses. In addition, Venkatesh *et al*. (2007) call for an end to the 'replication and minor extensions' of the dominant theories used in information system research. In similar vein, McMaster and Wastell (2005) call for alternative theoretical lenses to examine and study technology diffusion to include potential models.

As a result, TAM (Figure 12) was modified by adding external variables to show considerable contribution in explaining attitude towards adopting MB services (Turner *et al*. 2010; Taylor and Todd, 1995). In response to this, a number of modifications and changes were applied to TAM's original constructs. Luarn and Lin (2005) employ TAM to examine those factors affecting MB services by adding a trust-based construct, ''perceived credibility'' and two resource-based constructs, ''perceived self-efficacy'' and ''perceived financial cost''. Further, Cheah *et al*. (2011) add the constructs social norms, perceived risks, perceived innovativeness, and perceived relative advantage, using TAM to predict consumers' behavioural intention to adopt m-banking services.

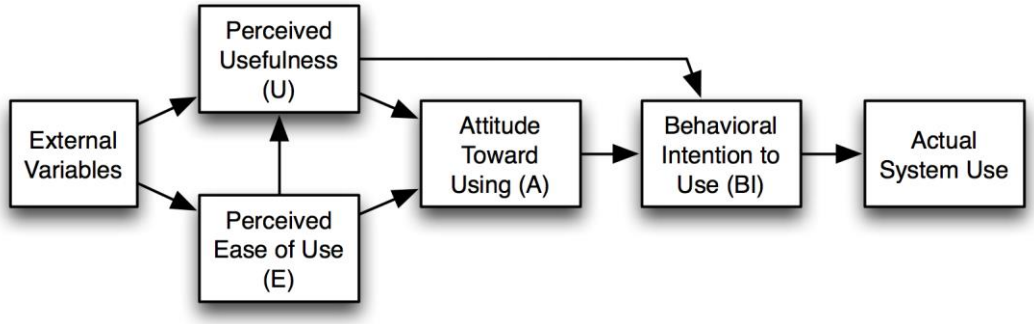


Figure 12 Technology acceptance model (TAM) *(source: Davis, 1989).*

However, the Task-Technology Fit theory (TTF), figure 13, overcomes some of the weaknesses of TAM due to its lack of task focus. TTF argues that individuals are more likely to use a new technology when it fits their tasks and improves perceived performance (Goodhue and Thompson, 1995). TTF suggests that individuals' characteristics (e.g. self-efficacy) might affect how easily they will utilize the technology. Task and technology characteristics together have an influence on TTF which in turn affects the outcome variables, either performance or utilization (Gebauer and Tang, 2007; Zhou *et al*, 2010). Thus, the use of a new introduced technology should fit the requirements of the task or users' needs (Goodhue and Thompson, 1995).

TTF has been used to explain user adoption of mobile technologies such as location-based systems (Junglas *et al*., 2008), mobile banking (Zhou *et al*, 2010) and mobile information systems (Gebauer and Tang, 2007). Location sensitiveness (task characteristics), locatability and mobility (technology characteristics) affect the task technology fit, which further determines a person's performance while using location-based services (Junglas *et al.*, 2008). Also, TTF examined in explaining MB services user adoption. Users consider the fit between

task requirements and MB services functions. It is more appropriate for those who are mobile frequently than those who always staying in the office (Zhou *et al*, 2010). As a result, a good task-technology fit might increase user acceptance of a new technology. In contrast, a poor task-technology fit might decrease the level of the new technology acceptance (Gebauer and Tang, 2007).

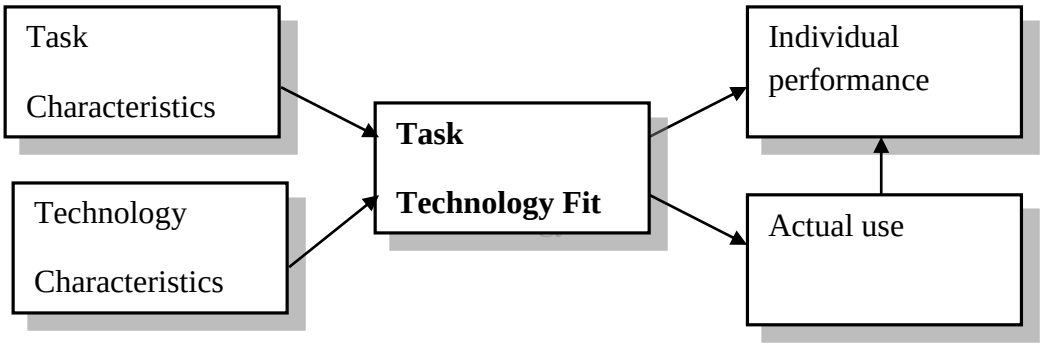


Figure 13 Task-technology fit model *(Goodhue and Thompson, 1995).*

Customers' attitude toward an innovation might be formed according to product characteristics. The Diffusion of Innovation Theory (DIT) indicates that various innovation attributes that can predict customers' decision to adopt new technology (Rogers, 1995). It argues that the process of diffusion has four elements: an innovation, communication channels, the social system and time. According to Rogers (1995: 35) an innovation is *''an idea, practice or project that is perceived as new by an individual or other unit of adoption''.* The decision for adoption *''is the full use of an innovation as the best course of action available and the rejection is not to adopt an innovation''* (Rogers, 1995:21).

DIT claims that five perceived characteristics of an innovation might affect the rate of an innovation adoption. *Relative advantage* refers to product offers that express unique benefits to users. It matters to consumers when an innovation provides them with different advantageous preferences compared with previous ones. These include economic benefits, improved status or enhanced efficiency (Rogers, 1995). *Perceived compatibility* is the matching of the new technology with the norms, values, practices, needs and experiences of users. *Perceived complexity* is the degree to which a new innovation is perceived as difficult to understand and use. *Perceived trialability* is the degree to which an innovation can be tried

or used for a temporary period (i.e. test drive). *Communicability* is the degree to which a new product can be promoted to others (Rogers, 1995).

The DIT model classifies new technology adopters into various categories, based on the idea that certain individuals are inevitable more open to adaptation than others. These categories are innovators, early adopters, early majorities, late majorities and laggards (Figure 14). Rogers (1995) believes that *the innovators* are obsessed and venturesome about an innovation. *Early adopters* are seen as a more integral part of the local system than innovators. They adopt a new innovation to reduce uncertainty then they develop a subjective evaluation of the innovation to other people by interpersonal communication. *The Early majorities* adopt new innovation with the influence of peers' interaction. The early majority group has a distinctive position between early adopter and late majority, which makes them a link in the process of innovation diffusion. *The Late majority* make up one third of the member of a social system. The adoption of an innovation occurs as an outcome of intensive communication with peers. *The laggards* are the last category to adopt a new innovation and they possess almost no opinion leadership. Resistance to innovations of laggards could be a rational standpoint as their resources are limited in relation to the new innovation.

Similarly, Parasuraman and Colby (2001) research the target markets for new technology and identify five categories of customers based on their technology readiness scores: explorers, pioneers, sceptics, paranoids and laggards. Technology readiness (TR) refers to *''people's propensity to embrace and use new technologies for accomplishing goals in home life and at work''* (Parasuraman, 2000: 308). The TR constructs can be viewed as an overall state of mind resulting from a gestalt of mental enablers and inhibitors that collectively determine a person's predisposition toward technologies (Parasuraman, 2000). The TR is based on four constructs: Optimism, Innovativeness, Discomfort and Insecurity. Optimism and innovativeness are the positive drivers of TR, encouraging customers to use technological products/services and to hold a positive attitude toward technology, while discomfort and insecurity are negative drivers, making customers reluctant to use technology. Parasuraman and Colby (2001) found customer segments with differing TR profiles vary significantly in terms of internet-related behaviours.

However, DIT was criticized as it does not demonstrate how attitude is formed, how it leads to the eventual behaviours and how innovation characteristics fit into the adoption process (Karahana and Straub, 1999). Furthermore, Moore (1991) condemns TDI for relying on

innovators and early adopters to market technological products, as consumers tend to be cautious with their purchasing decision-making, because these are generally high-price items and possible risk might be associated with the adoption decision. Similarly, McMaster and Wastel (2005) argue that while Rogers (1995) has identified five classes ranging from innovators to laggards, Rogers has in fact simply divided people into two groups, those who adopt and those who do not. Further, Mcmaster and Wastel (2005) condemn the central idea of the theory that if the technology fails to 'diffuse' in a population, then it is in fact a problem of the individuals in the organization, whereas there might be other factors, such as the issue of poor technology.

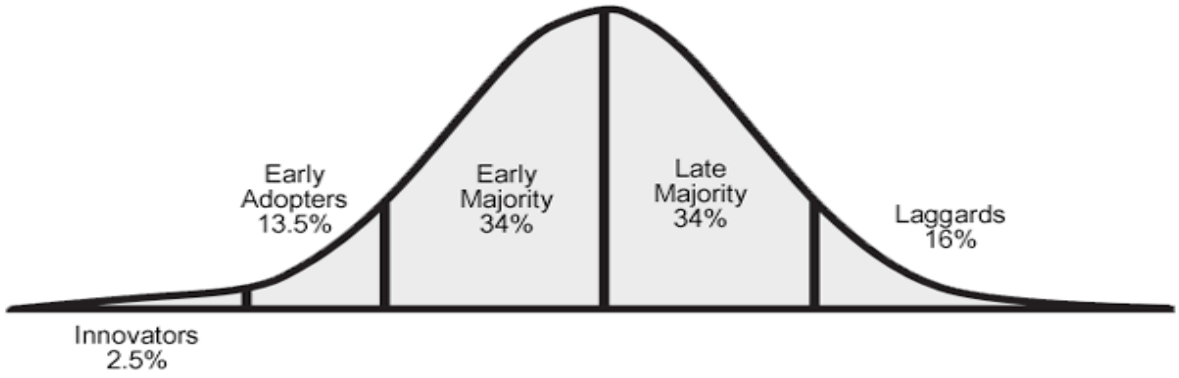


Figure 14 Categories of innovativeness in diffusion of innovations *(source: Rogers, 1995).*

Based on the discussion above, TRA and its derivative models articulate the correlation between attitude and intention to engage in a certain behaviour. Sheppard *et al.* (1988) point out that attitude towards an activity could be regarded as the interest in a particular behaviour or situation. In the case of this study, the focal attitude is interest in the m-applications services. Without a favourable attitude towards supplier's m-application service, the consumer might be averse to downloading and/or using services offered in m-application. Hence, consumers' attitude toward engaging in m-applications services may be in a significant predictor for behavioural outcomes of interest towards service content. These include purchasing activities (e.g. buying items) and information-sharing activities (e.g. viewing photos of products) (Taylor and Levin, 2014).

To sum up, the previously discussed theories have contributed significantly in explaining consumer behaviour in m-commerce services in general and m-banking services in particular. However, they have shortcomings which will be addressed in this study. Technology-attitudinal theories have been criticized for mainly concentrating on consumers' side and

neglecting the role of suppliers who affect the use decision (Attewell, 1992). Also, Frambach *et al* (1998: 161) stated:

''Adopting models have almost exclusively focused on adopters' side variables in explaining individual adoption behaviour''.

This gap emerges from disregarding the role of service suppliers in affecting the intention behaviour. M-banking services are not merely considered as technological innovations, they are a means to facilitate banking services accessibility from banks. This requires taking into account the buyer-seller dyadic relationship to involve suppliers' role in the adoption decision by considering Relationship Marketing concepts. This rationale stems from the argument claiming the mobile medium can create more convenient, value added services and context-related services (Riivari, 2005; Kannan *et al*., 2001). Further, Anckar and D'Incau (2002) found that consumers are most interested in services with high mobile value which meet spontaneous needs and time critical needs (e.g. checking stock quotes).

Although the mentioned theoretical models have contributed to understanding consumer behaviour in technology acceptance and use, they do not highlight the role of value in the service delivery process. This is especially crucial in services delivered via technological mediums. Zeithaml and Bitner (1997: 32) argue that:

''the value concept is a key competitive factor defining the way services are bought and sold''.

It is likely that the specific attributes of a technology might influence the way it is perceived; hence the formation of intention and behaviour towards it (Alhudaithy and Kitchen, 2009). This needs attention because, with the exception of DIT, technology-based models were general in formulation and brought from other disciplines (e.g. TAM organizational behaviour, TRA social psychology). Accordingly, there is a need for more research to gain a better understanding of how interdependence in the buyer-seller dyad can be seen as a resource that can be managed and exploited for value co-creation. This is because firms are searching for new and better ways to create value and differentiate their service offerings for competitive advantage (Woodruff, 1997). Also, Holbrook (1994) opines that explanation of value in services would be well served by adopting a research perspective that cuts across various service industries. Therefore, the current study focused on the Service-dominant logic (S-d logic) standpoint, which highlights the role of customers in service delivery when they are seen as value co-creators (Vargo and Lusch, 2004). The next section introduces the role of customers under the S-d logic perspective.

Table 8 Studies that applied technology-models to m-banking service adoption *(source: Author).*

Author, Date and Country	Aim of the Study	Theoretical Stand	Research Method	Population & Sample Size	Relevant Findings	Areas for future research
Awasthi & Sangle, 2013, India	The aim of the paper is to identify interactions existing among the identified factors and understanding how they impact adoption intention so that better CRM strategies for mobile channel can be orchestrated	TAM	Quant. a survey questionnaire	552 respondents (mobile devices users)	Perceived benefits of m-banking services proved to have highly relevant factors to the acceptance. From the perspective of benefits, perceptions value, perceived usefulness and context were the three critical components significantly influencing adoption intention.	Future studies may be devoted to understand the behaviour of m-banking services users exploring usage experience outside India [p. 884]
Jeong & Yoon, 2013, Singapore	Explores factors influencing adoption of mobile banking. Based on extended Technology Acceptance Model (TAM), they identified five factors which influence consumers' behavioural intention to adopt mobile banking.	TAM (with perceived credibility, perceived self-efficacy, and perceived financial Cost)	Quant. a survey questionnaire	165 respondents (users and non-users)	Perceived usefulness and perceived ease of use is found to be the most significant factor influencing the intention to use m-banking. This finding suggest that if m-banking is to be accepted by users, they should perceive it as a useful and quicker way of doing banking transactions compared with the traditional banking system. Banking institutions should take advantage of **value-adding characteristics** of m-banking in promoting perceived usefulness. The advent of smart phone has contributed in a rapid growth of m-banking; however there are some inherent drawbacks that come along with a handset. Features like screen size, complicated texting mechanisms, need for high data storage, and shorter battery life seem to be limitations that influence perceived ease of use.	A call for additional factors such as innovation and facilitating conditions could improve the ability to predict adoption more accurately. Furthermore, perception of individuals changes over time as they gain experience. So a longitudinal study would be interesting to examine long term effects of an individual's acceptance on m-banking. [p. 38].
Beiginia *et al*., 2011 (Iran)	The aim is to identify factors related to behavioural intentions of customers in using m-banking services	TPB	Quant. Questionnaire	315 m-banking users	Findings indicated that quality of information, the bank's reputation, speed of transactions, security, behavioural beliefs and control beliefs had significant indirect and total impacts on behavioural intentions. While the bank's reputation, speed of transactions, behavioural beliefs and control beliefs also had significant indirect and total impacts on performing the behaviour. Comparing the impact of the three	No Future/Limitation Guideline

					constructs on behavioural intention show that the factor "attitude" has the greatest role in customers' intention to use, and perceived behavioural control gets the next place (p. 30).	
Crabbe *et al*, 2009 (Ghana)	To identify and analyse social, economic and cultural factors that influence mobile banking adoption behaviour	TAM	Quant. Questionnaire	271 m-banking users/non-users	Current user's attitude is shaped by perceived credibility of the service and facilitating conditions and is moderated according to age, educational background and banking experience. Perceived elitisation influences behavioural intention-to-use. Demographic factors such as age, gender and education are also found to impact significantly on intention-to-use mobile banking attitude (p. 538).	Future studies can be conducted in other social and cultural contexts in developing countries to determine if social and cultural factors figure prominently in the decision to adopt m-banking [p. 541.
Poon, 2008 (Malaysia)	To examine factors affecting the adoption of e-banking services in Malaysia.	Pre-chosen factors from e-banking literature	Quant. Questionnaire	324 e-banking users	Results indicate that accessibility, convenience, Design and content were main drivers for e-banking adoption besides, the speed, product features availability, and reasonable service fees and charges, as well as the bank's operations management. On the contrary, GPRS and 3G features of mobile devices were proven to have no significance in the adoption of e-banking services. However, privacy, security and convenience factors play an important role in determining the users' acceptance of e-banking services with respect to different segmentation of age group, education level and income level.	This study excludes the voice of non-users. As such, non-users' views should be taken into account in the future study [p 67].
Laforet & Li, (2005), China	The aim of this study was to investigate the market status for online and mobile banking in China. Consumer behaviour, attitude, motivation and cultural influence were examined with regard to Chinese adoption of these services.	Consumers' attitudes and reactions to new technology literature	Quant. Questionnaire	300 bank customers	Socio-cultural context suggested to have critical role towards online and mobile banking services adoption. As for m-banking, findings revealed that previous experience with computers and new technology were proved to have an effect on Chinese consumers to adopt m-banking. In addition, lack of understanding of m-banking benefits was found significant towards the adoption.	A more detailed study can be carried out to acquire insights into the phenomena, based on a better distribution of respondents profile characteristics [p. 377].
Laurn & Lin, 2005, Taiwan	To extend TAM in mobile context by adding trust-based construct (perceived credibility) and two resource-based constructs (perceived self-efficacy and perceived financial cost).	TAM	Quant. Questionnaire	180 m-banking users	Strong effects significance were found in influencing behavioural intention from perceived usefulness, ease of use, credibility, self-efficacy and financial cost. Perceived credibility were found to have a stronger influence on behavioural intention than traditional TAM variables (ease of use & usefulness) that is	Continued research is needed to generalize study's findings and more discussion need to include other groups. Also, additional variables are required to expand our knowledge in m-banking

					security and privacy issues found to be significant concerns for consumers when using m-banking.	(e.g. perceived critical mass). Longitudinal study is suggested to enhance our understanding of causality and interrelationships between variables to individuals' acceptance of m-banking [p.888]
Suoranta & Mattila, 2004, Finland	Aims to investigate the consumer behaviour in m-banking and in particular on influence of certain demographic characteristics on the adoption process.	Bass Model	Quant. Questionnaire	1253 mobile users	Findings showed that main source of information about m-banking was by interpersonal influence namely recommendations by bank's personnel while 16.4 % of respondents were influenced by bank's direct marketing activity (letter) and 15.7 % by bank's advertisement. Furthermore, findings presented that the group most eager to begin regular usage of m-banking services are 25 to 34 (38.3 %) years old customers followed by age group of 35 to 49 years old (29.4 %) who were the next ones to begin the usage of m-banking services; it is also the largest age category among the non-users. Also, findings showed that household income has an influence on m-banking adoption.	The study is cross-sectional and the factors influencing m-banking adoption in this study are not discussed in details. Future research needs to consider the development of m-banking.
Brown *et al*, 2003, South Africa	to examine what factors would influence the adoption of cell phone banking in South Africa	TID & other factors include (cell phone experience, banking needs, perceived risk, Self-efficacy and facilitating conditions)	Quant. Questionnaire	162 m-phone users	Findings indicated that relative advantage, trialability, banking needs and lower perceptions of risk affect the m-banking adoption while compatibility, complexity, cell phone experience, facilitating conditions, and self-efficacy did not show any influence on m-banking adoption. This may be due to the fact that very few have actually used the service, and thus may not be able to unambiguously develop perceptions of whether this technology would be compatible with their lifestyle, whether facilitated support for its use would be necessary, whether they would have the confidence to use it, and whether it would be difficult to use.	The factors identified as possible influences on m- banking adoption are not exhaustive and there are some factors which are expected to have an influence on the adoption (e.g. consumers awareness and cost) need be examined as well [p.391].
Mattila, 2003, Finland	examines factors influencing the adoption of m-banking services		Quant. Questionnaire	1253 bank customers	Findings indicated that the most significant predictors of adoption are relative advantage, compatibility and complexity more than observability, trialability and risk. Also, demographic factors have an influence on adoption. M-banking users were young and educated, whereas non-users were relatively older (50-64 years old).	No Future/Limitation Guideline

3.3 Service-dominant (S-d) Logic: The Role of the Customer

Since it was introduced by Vargo and Lusch (2004), S-d logic is an emerging school of thought within marketing with an increased focus on service delivery. This logic flourished vigorously and has become widely discussed in literature. During the late 1999s and early 2000s, the idea of value creation and the locus of value creation for customers began to be debated in the marketing literature (Grönroos, 2006). The predominant view that value for customers is embedded in products as value in-exchange is challenged by an alternative view that value emerges in customers' sphere as value in-use (Ravald and Grönroos, 1996; Woodruff and Gardial, 1996; Holbrook, 1999; Lusch *et al*., 2007). It highlights that the creation of value occurs when consumers use a product or service (Payne *et al*., 2008; Vargo and Lusch, 2004).

The traditional perspective of the meaning of value in-exchange is associated with goods-dominant logic (G-d). In G-d logic, value is created (manufactured) by the firm and distributed in the market through exchange of goods and money (Vargo and Lusch, 2004). Taking the automobile example (Vargo *et al*. 2008), a manufacturer constructs the automobile out of metal, plastic, rubber and other parts, arranges them precisely and packages them together. According to the G-d view, the firm's production process creates value for customers through the manufacturing and delivery of an automobile. In this case, an automobile production firm embeds value in the automobile by transforming raw materials into what customers want. Accordingly, value is created by the firm in the form of a good which is exchanged for money in the marketplace (Vargo *et al*., 2008).

In contrast, as distinct from treating 'value' as an embedded attribute of the product being exchanged, S-d logic views it as being created through interactions with customers taking place in the relational process (Kowalkowski, 2011). It emphasizes that customers make value assessments when a product is in use, based on their service ability. In other words, customers judge the worth of the service from a product through value in-use (Ballantyne *et al*, 2011). Therefore, customers interact with the offered service through in-use experience as well as the interaction with service supplier. As a part of this interaction, customers become the final arbiters of value co-created via direct exchange with the supplier and most important, the value is determined at the time of use as value-in-use (Lusch and Vargo, 2006). Hence, at the time of consumption value in-use is realized and determined by consumers (Vargo and Lusch, 2008). Vargo and Lusch (2006: 44) point out this rationale by stating, ''*there is no value until*

an offering is used and experience, perceptions are essential to value determination''. Further; they elaborated on the meaning of value co-creation arguing that value-in-use is relational and reciprocal and the notion of customer as a co-creator of value is captured mainly through perceptions and experiences.

Vargo *et al*. (2008) make a fundamental distinction between the G-d logic and S-d logic in value creation based on the role of the 'resources', which include *operand* and *operant* resources (Table 9).

Table 9 G-d logic vs. S-d logic on value creation.

	G-D logic	S-D logic
Value driver	Value in-exchange	Value in-use or value in-context
Creator of value	Firm, often with input from firm in a supply chain	Firm, network partners and customers
Process of value creation	Firm embeds value in 'goods' or 'services', value is 'added' by enhancing or increasing attributes increase wealth for the firm	Firm proposes value through market offerings, customer continues value-creation process *through use*
Purpose of value	Increase wealth for the firm	Increase adaptability, survivability and system wellbeing through service (applied knowledge and skills) of others
Measurement of value	The amount of nominal value, price received in exchange	The adaptability and survivability of the beneficiary system
Resources used	Primarily operand resources	Primarily operant resources, sometimes transferred by embedding them in operand resources-goods
Role of firm	Produce and distribute value	Propose and co-create value, provide service
Role of goods	Units of output, operand resources that are embedded with value	Vehicle for operant resources, enables access to benefits of firm competences
Role of customers	To 'use up' or destroy' value created by the them	Co-create value through the integration of firm-provided resources with other private and publics resources

(Source: Vargo et al., 2008).

Operand resources refers to ''resources on which an operation or act is performed with operant resources, which can be employed to act on operand (and other operant resources)'' (Vargo and Lusch, 2004: 2). On the other hand, *operant resources* ''are those that produce effects and are often invisible, which include knowledge, core competences and organizational process'' (Vargo and Lusch, 2004). S-d logic focuses on operant resources because they are primary in producing effects (Vargo and Lusch, 2004). For instance, operand resources in G-d are

represented by the tangible and visible goods on which an operation is performed to produce an effect, such as equipment. In contrast, S-d focuses on the operant resources which imply those resources that are usually intangible and dynamic, and employed to create value by acting on operand resources, such as skills and knowledge. Vargo and Lusch (2006) point out that S-d implies continuous social and economic processes which largely concentrate on operant resources, by using intangible sources as skills and knowledge, where value is co-created in an interactive manner.

Taking this study into consideration, S-d logic views consumers as operant resources (e.g. skills and knowledge) that produce effects in their own right (Arnould *et al.,* 2006). Consumers are considered as active in the co-creation of value and it is through their experiences that value in-use is attainted (Baron *et al*., 2010; Prahalad and Ramaswamy 2004a). For example, in the scenario of withdrawing cash from an automated teller machine, the customer needs some skills to operate the ATM. In addition, a plastic card is required (Grönroos, 2008). In mobile services, without device adoption, there is no mobile commerce *(*Sarker and Wells, 2003). In this regard, self-efficacy might appear as a factor influencing mobile services adoption. It is an individual's self-assessment of being able to complete a specific mission (Bandura, 1986). Customers who believe mobile services are complex are expected to avoid them and have less motivation to use them. Therefore, self-efficacy affects the behaviour of consumers towards adopting mobile services through either direct or indirect usage factors (Sarker and Wells, 2003).

In sustaining the above discussions, Vargo and Lusch (2004) highlight ten foundational premises (FP) which suggest value is always co-created and it is uniquely and phenomenologically determined by the beneficiary (Table 10). Accordingly, value is regarded as idiosyncratic, experiential, contextual and meaning-laden (Vargo and Lusch, 2008).

Table 10 Service-dominant logic foundational premises.

FPs	Foundational premise	Comment/explanation
FP1	Service is the fundamental basis of exchange	The application of operant resources (knowledge and skills), "service," as defined in S-D logic, is the basis for all exchange. Service is exchanged for service
FP2	Indirect exchange masks the fundamental basis of exchange	Because service is provided through complex combinations of goods, money, and institutions, the service basis of exchange is not always apparent
FP3	Goods are a distribution mechanism for service provision	Goods (both durable and non-durable) derive their value through use–the service they provide

FP4	Operant resources are the fundamental source of competitive advantage	The comparative ability to cause desired change drives competition
FP5	All economies are service economies	Service (singular) is only now becoming more apparent with increased specialization and outsourcing
FP6	Customer is always a co-creator of value	Implies value creation is interactional
FP7	The enterprise cannot deliver value, but only offer value propositions	Enterprises can offer their applied resources for value creation and collaboratively (interactively) create value following acceptance of value propositions, but cannot create and/or deliver value independently
FP8	A service-centered view is inherently Customer oriented and relational	Because service is defined in terms of customer-determined benefit and co-created it is inherently customer oriented and relational
FP9	All social and economic actors are resource integrators	Implies the context of value creation is networks of networks (resource integrators)
FP10	Value is always uniquely and phenomenologically determined by the beneficiary	Value is idiosyncratic, experiential, contextual, and meaning laden

(Source: Vargo and Lusch, 2008).

The concept of (FP6) value co-creation rejects the separation of the traditional value chain and proposes a value system where producer and customer in a relational system create value through the integration of their resources (Vargo and Lusch, 2008). Co-creation further recognizes that value is realized and determined by the customer in use (Payne *et al*., 2008; Vargo and Lusch, 2008). From this perspective, customers do not make purchases for the sake of making a purchase; they seek a value proposition, which they perceive to be potentially valuable and the value of the market 'offering' is only realized within the customer's context. Until the point of value realization (i.e. in use), the offering is only potentially valuable; the implication for the firm being that they cannot deliver value, but only offer value propositions, as stated in FP7.

FP 6: The customer is always a co-creator of value

The active role of customers in service delivery is inescapable. As stated earlier, a distinctive difference between traditional manners of understanding value creation in G-d and S-d logics lies in the basis of exchange. Value in-exchange and value in-use imply different thinking about value and value creation. Unlike the G-d logic viewpoint, S-d logic views customers as operant resources having active roles in co-creating value derived from integrating knowledge and skills along with the core competences of the firm (Vargo and Lusch, 2008). This is represented by the fact that value is not embedded in goods; instead value is derived through use and consumption. Grönroos and Ravald (2011) point out that customers as co-producers (participants in e.g. designing new products) differs from customers as co-creators of value.

They argue that it is always customers who create the value for themselves and the supplier is more a value facilitator.

Although the phrase customer co-production was argued to be a feature of the G-d logic viewpoint, S-d logic does not relinquish its importance in the marketing domain. The inseparability of service which presupposes customers to participate in service delivery might be viewed in relation to customer 'co-production' and 'co-creation'. Prahalad and Ramaswamy (2000b) examine the new role of customers' knowledge in the value creation process. They mapped the evolution of customers through two primary transformations – from being a passive audience for a firm's offerings to becoming active players and co-creators of knowledge and value. Vargo and Lusch (2008: 8) make a clear distinction between the two concepts by arguing that, *''while customer are always co-creators of value, co-production is optional and can vary from none at all to extensive co-production activities by the customer or users''*. Co-production takes place when a customer is involved in the participation in the creation of the core offering itself (Lusch and Vargo, 2006). A clear example might be derived from co-designing where customers participate and collaborate with the company in creating the core offering (Prahalad, 2004). By engaging customers in tailoring products and services according to their needs and wishes, co-production and co-creation of value are involved.

However, advancement of information technology innovations has assisted suppliers to support co-creation opportunities (Payne *et al*., 2008; Prahalad and Ramaswamy, 2004a). Customers are increasingly able to access an immense amount of information in everyday life. They become more skilled, share their knowledge and are informed. They can assess value on their own terms, influence others' expectations and decide how they want to interact with the supplier. Prahalad and Ramaswamy (2004a) point out that the evolution and transformation of customers from 'passive audience' to 'active players' has a particular resonance to value co-creation. The authors argued that co-creation holds that the customer is an empowered participant in a process rather than a faceless participant in a transaction. Consequently, the utilization of experience itself can be rich in value.

Several authors view that consumers actively co-construct their own consumption experiences, and as a result co-create unique value for themselves (Prahalad and Ramaswamy, 2004a, Holbrook, 1999). Experiential value perceptions are based on interactions with direct usage of products and services. These interactions provide the basis for the relativistic preferences held by the individuals involved (Holbrook and Hirscman, 1982). Customers generate value

through the experiential view of consumption (Holbrook and Hirscman, 1982). Accordingly, a customer might choose self-service options for 'experiential' outcomes such as convenience, greater control or more fun (Hilton and Hughes, 2008). The behaviour might not necessarily be utilitarian-directed, but rather emphasizes emotions, contextual and symbolic aspects of consumption (Addis and Holbrook, 2001). Holbrook (1999) points out that intrinsic value derives from the appreciation of an experience for its own sake, apparat from any other consequence that may result.

Therefore, value is co-created with customers and determined by them. S-d conceptualizes the service as the co-creation of value between the customer and the firm through an integration of resources accessible to both parties. Vargo and Lusch (2008) elaborate that all offerings of the firm are deemed as mere value propositions to be realized through co-creation interactions to achieve the individuals' goal. This implies that customers co-create value through the consumption or use situations. Most literature has acknowledged that value in-use is achieved in context (Ravald and Grönroos, 2011; Heinonen and Strandvik, 2009; Payne *et al*., 2008; Sandström *et al*., 2008) and some authors have proposed that value in-use is synonymous to value in-context (Vargo and Lusch, 2008).

Given that value is created in a use situation, situational or contextual conditions of that situation could affect the co-creation (Lapierre and Shelling, 2008). Furthermore, Palmatier (2008) argues that contextual variables may arise from changes in the physical environment, originating either from the supplier and/or from the customers themselves. The inseparability of service, which requires customers to participate in service delivery, may be viewed in relation to customer co-creation. For instance, in using mobile banking services, there could be a number of contextual factors affecting value creation and such contextual factors may create contextual variance in the way these services are used by the same user. In the banking industry, a user may prefer to use Internet banking services because they have more time and spatial convenience to perform transactions. On the other hand, m-banking services users favour the ubiquity feature of the mobile medium, where they have access to account management independent of time and place. This enables banks to achieve more with less as customers interact with the offered services so customers' role is transformed from merely service receivers to active users (Ravald and Grönroos, 2011; Vargo and Lusch,, 2006).

FP 7: The firm can only make and offer a 'value proposition'

It is argued in S-D logic that an enterprise can only offer a value proposition and proposed that value is not delivered but is co-created in use with the customer (Vargo and Lusch, 2008). Ballantyne *et al*. (2011) elaborate that there are a variety of perspectives on 'value proposition'; it is most commonly taken to refer to the benefits that an enterprise promises to deliver in return for value delivered by the customer (often a financial payment). The firm can only offer a value proposition which potentially has value for the customer; hence, a value proposition 'exists to facilitate the co-creation of experiences' (Ballantyne *et al*., 2011; Payne *et al*, 2008). However, Ballantyne and Varey (2006) argue that, for a long-term relationship between a supplier and customer to work, there must be mutually satisfactory value proposition offered by both parties; 'reciprocal' value propositions.

Value proposition is seen as important part of overall value creation process in customer management (Payne and Frow, 2014; Payne *et al*., 2008). Anderson *et al* (2006) identify three approaches of which an organization usually adopts one to develop value propositions: all benefits, favourable points of points and resonating focus. The authors emphasized that the last approach is preferable as it asserts key critical attributes to customers. Further, Anderson *et al*. (2006) point out that the objective of the value proposition should be to provide distinct and concentrated benefits, by diagnosing a target segment's problem, and offering a solution that is superior to competitors, measurable and sustainable (i.e. valid for a certain period of time). A successful value proposition provides the basis for differentiation and the foundation for an ongoing buyer-seller relationship (Payne and Frow, 2014). Payne (2006: 123) point out that the aim of all organizations is to create a value proposition, whether implicit or explicit to its customers and it should be superior to those of competitors. Barnes *et al*. (2009) dissect that value proposition development is an organizational approach to building in value to customer experience in terms of their needs and wants.

However, it is crucial to consider product characteristics when value is created to match specific customer needs (Kambil *et al*., 1996). Along similar lines, Porter (1998) views value proposition as the relationship between supplier offerings and consumer purchases by identifying how the supplier fulfils the customer's needs across different customer roles. Bovet and Martha (2000) explain that a 'value proposition is the utility-creating product and/or service that a company presents to customers'. Thus, the value proposition solidifies the

relationship between the users and various dimensions of product value (Loebbecke and Huyskens, 2007).

The focus of the present study is on the mobile medium where the role of the mobile services supplier is to communicate value propositions and fulfil customer goals and desires through the consumption experience (Ballantyne and Aitken, 2007; Payne and Frow, 2005). Therefore, it is important to map mobile value proposition and customer needs to match them to mobile services characteristics designed in order to fulfil the consumption experience of the customers (**see section 3.7**).

3.4 Customer Participation in Service Delivery

One distinguishing characteristic of services is the customer's participation in the delivery process. Different types of service involve different levels of participation. It is possible to describe participation level according to service interaction. Shostack (1985) identifies three types of service encounters. The direct personal encounter refers to direct human interaction. The indirect personal encounter denotes verbal but no face-to-face interaction. The remote encounter occurs without human interaction with the service supplier, such as through mail or machine. In reviewing literature, several definitions of customer participation can be found. (Table 11).

Table 11 Definitions of customer participation.

Chan *et al.* (2010: 49)	a behavioural construct that measures the extent to which customers provide or share information, make suggestions, and become involved in decision making during the service co-creation and delivery process.
Hsieh *et al.* (2005: 190)	The extent to which customers provide resources in the form of time and/or effort, information provision, and co-production during the service production and delivery process.
Rodie and Kleine (2000: 111)	A behavioural concept that refers to the actions and resources supplied by customers or service production and/or delivery.
Cermak *et al.* (1994: 2)	The customer behaviours related to specification and delivery of a service.
File *et al.* (1992: 6)	The types and level of behaviour in which buyers actually engage in connection with the definition and delivery of the service (or value) they seek.

Dabholkar (1990: 484)	The degree to which the customer is involved in producing and delivering the service.

(*Source: Author*).

Ennew and Binks (1999) view participation from a more interpersonal relationship consisting of three broad dimensions. These include information sharing, responsible behaviour and personal interaction. Information sharing demotes that customers need to share and exchange information with the provider in order to meet their personal needs. This is apparent in self-service machines. Customer information is fed into the system which might be as basic as keying in username and password to log in to the system. Responsible behaviour recognizes the duties and responsibilities of both parties in the relationship dyad, supplier and customer. The third dimension postulates that a relationship such as trust and commitment will be present and emerge.

This study uses customer participation behaviour in a broader sense, which includes required behaviours necessary for successful service creation. The purpose is to understand the value creation process where customers participate in service delivery. It conceptualizes customer participation as a behavioural construct that identifies the extent to which customers provide information, make suggestions, and become involved in decision making during the service co-creation and delivery process (Chen *et al*., 2010; Bitner *et al*., 1997). In fact, customers are expected to perform certain tasks that were traditionally accomplished by a firms' employees (Bitner *et al*. 1997). This involves different levels of customer participation, which can be low, moderate or high according to the service industry. Customer participation in some banking contexts might moderate, where the customer's input comes to assist the supplier in creating the services. Bitner *et al*. (1997: 194) describe that: '*'the inputs can include information provision, effort or physical possessions''.*

Although the importance of customer participation in technology-based services, the more recent research emphases the role of customers as co-creators of value, who integrate firm-provided resources for their own benefit (Vargo and Lusch, 2006). As point out by Arnould *et al.* (2006), customer intangible resources influence the way they use and employ firm's resource. Taking the research phenomenon into consideration (i.e. m-applications), customers need skills and knowledge to download and use new m-applications on their mobile devices successfully. From this perspective, m-applications services can be viewed as a value co-creation locus within buyer-seller relationship. There can be no co-creation value between

buyer-seller, if the firm has designed applications that are difficult to use (Payne *et al*., 2008). This entails a fit between firm's service offering to meet customers' needs. When such a fit exists, customers may perceive the desired value from the service usage. As S-d logic postulates, value emerges through customer's creation of value in-use. The underpinning argument is that there is no value until an offering is used and experienced, so perceptions are essential to value determination (Vargo and Lusch, 2006: 44). This indicates that the customer as value co-creator is mainly captured through the consumption experience.

3.5 Value in-use through Consumption Experience

Studies based on assumptions implicit in the experiential perspective have emphasized hedonic and emotions process of consumption (Addis and Holbrook, 2001; Holbrook and Hirschman, 1982). Holbrook and Hirschman (1982) suggest experiential (hedonic) consumption is key to understanding consumer behaviour. Experiential aspects of consumption experience are subjectively based which focuses on multisensory, fantasy and emotional arousal. It explores the consumption experience not as information-processing but via experiential approach. Holbrook and Hirschman (1982: 132) view experiential consumption as *''a primarily subjective state of consciousness with a variety of symbolic meaning, hedonic responses and esthetic criteria''*. In other words, the authors argue that hedonic consumption should be taken into account to provide a better knowledge on those facets of consumer behaviour that relate to the multisensory, fantasy and emotive aspects of product usage experience (Holbrook and Hirschman, 1982).

Holbrook and Hirschman (1982) point out that each episode of consumption is, by definition, an experience. This posits that the consumption experience is linked often with interaction significance of stimuli when products and services are consumed (Holbrook and Hirschman, 1982). In a similar vein, Gupta and Vajic (1999) describe a service experience as *''any sensation or knowledge acquisition resulting from interaction with the different dimensions of a context created by a service provider''*. Besides that, Sandström *et al*. (2008) argue that experience can be enjoyed by consumer through the consumption of product and service. The growth of services has led to experiential consumption, in which the good that is purchased is an experience rather than a material object (Addis and Holbrook, 2001). Addis and Holbrook (2001: 50) point out:*''The roles of emotions in behaviour; the fact that consumers are feelers as well as thinkers and doers; the significance of symbolism in consumption; the consumers'*

need for fun and leisure; the roles of consumers, beyond the act of purchase, in produce usage as well as brand choice''.

However, the experiential aspects of consumption of mobile devices might include hedonic experience and positive emotion. While certain kinds of mobile services, such as m-banking, appear to be more goal-oriented consumption than pure hedonic, such as mobile gaming, it still does not exclude the possibility of being influenced by both utilitarian and hedonic perspectives (Li *et al*., 2012; Pura, 2005). Mobile services provide opportunities to create value through customers' everyday usage. As explained by Ropke (2003) the value of mobile phone is contextualized through the consumer's perceptions of a fragmented life, such as an emphasis on avoiding insecurity, the need to coordinate daily activities and to manage time effectively by doing things on the move.

A number of classifications of mobile services and applications have been proposed in the literature to structure consumer behaviour (Smura *et al*, 2009; Heinonen and Pura, 2006; Pousttchi and Schurig, 2004). The results indicate that customer requirements and expectations about mobile services with respect to adoption, usage and acceptance. They indicate also that customer requirements and expectations about the functionality of the service, its design and the support of enabling services may play a critical role in the adoption and use of mobile services. In respect to m-banking, the adoption would depend on the provision of secure, reliable and easy to use user interface (Pousttchi and Schurig, 2004). The results indicate that socio-cultural context might have a significant and critical role in mobile services adoption (Smura *et al*, 2009).

Mobile services are different from traditional services which are delivered face-to-face or via online network (Heinonen and Pura, 2006). Indeed, users can have access to mobile services from anywhere and at any time the need emerges. This requires marketers to understand and analyze consumer behaviour in mobile services. In addition to expanding the use of online channel, mobile services offer location and context-specific information with higher personalization (Balasubramanian *et al.*, 2002). As mobile phones have become an inseparable part of consumers' life, analysing consumption patterns is increasingly complex among different types of mobile devices (Smura *et al*., 2009). This highlights the need for mobile services categorization to explore factors affecting customer in mobile services market.

In order to understand consumer behaviour, Heinonen and Pura (2006) present a framework which examines mobile services' consumption from a customer centric perspective. It involves type of consumption, use context, social setting and relationship with service supplier. This is achieved by classifying value creating opportunities through mobile situations and motivations of current or potential mobile services users. The classification is presented in Figure 15, which might be taken into consideration in planning and evaluating mobile services. All the aspects of classification are related to each other and contribute to value creation during use to the customer (Heinonen and Pura, 2006). The constructed framework is relevant to usage dimensions of mobile services which help interpreting and comparing consumer behaviour in different situations.

According to Heinonen and Pura (2006) *type of consumption* of mobile services has been frequently characterized based on hedonic and utilitarian value. The categorization reflects the division into efficiency needs and entertainment needs. The use of new technology to access the service can be viewed as fun and thus services create both utilitarian and hedonic value. *Temporal and spatial context* is another aspect of mobile services which is generated by the possibility of using services independently of time and place. Heinonen and Pura (2006) introduce a classification scheme according to temporal and spatial criticality. Temporal criticality reflects the urgency of need of a service, while spatial criticality reflects the situation of use location and usage of a mobile service. The usage of a service can be either place non-critical, i.e. the service can be used from anywhere, or critical, i.e. the service can merely be used in that particular situation. A customer has to pay parking ticketing with no alternatives, which indicates time and location criticality, because he/she needs to pay at a specific time and location for an urgent situation.

Social setting is the locus of service use besides time and location context. Kleijnen *et al*.'s (2004) findings report that social setting affects mobile services usage. Social setting involves interpersonal communication with a friend or family member. Different mobile services can be consumed alone or in a group for socializing with others. This depends on the social interaction level when using a mobile service. For example, when a consumer wants to use mobile gaming he/she probably wants to share it publicaly with others to enjoy the moment. Contrarily, a consumer interested in performing mobile payment might prefer a private space for more attention. This indicates low social interaction (Heinonen and Pura, 2006). *Relationship* is another important aspect of mobile services is which concerned with customer and service

suppler; discrete and continuous. Discrete transactions can be seen as episodes that represent a set of different interconnected actions. For example, the occasional usage of a retail service of free mobile web access by a customer in a retail store is a discrete transaction, because there is no registration required (Heinonen and Pura, 2006). The other dimension is continuous relationship, which is mainly related to services that are based on contract and entail some kind of agreement with the supplier (e.g. SMS reminder when account balance is low).

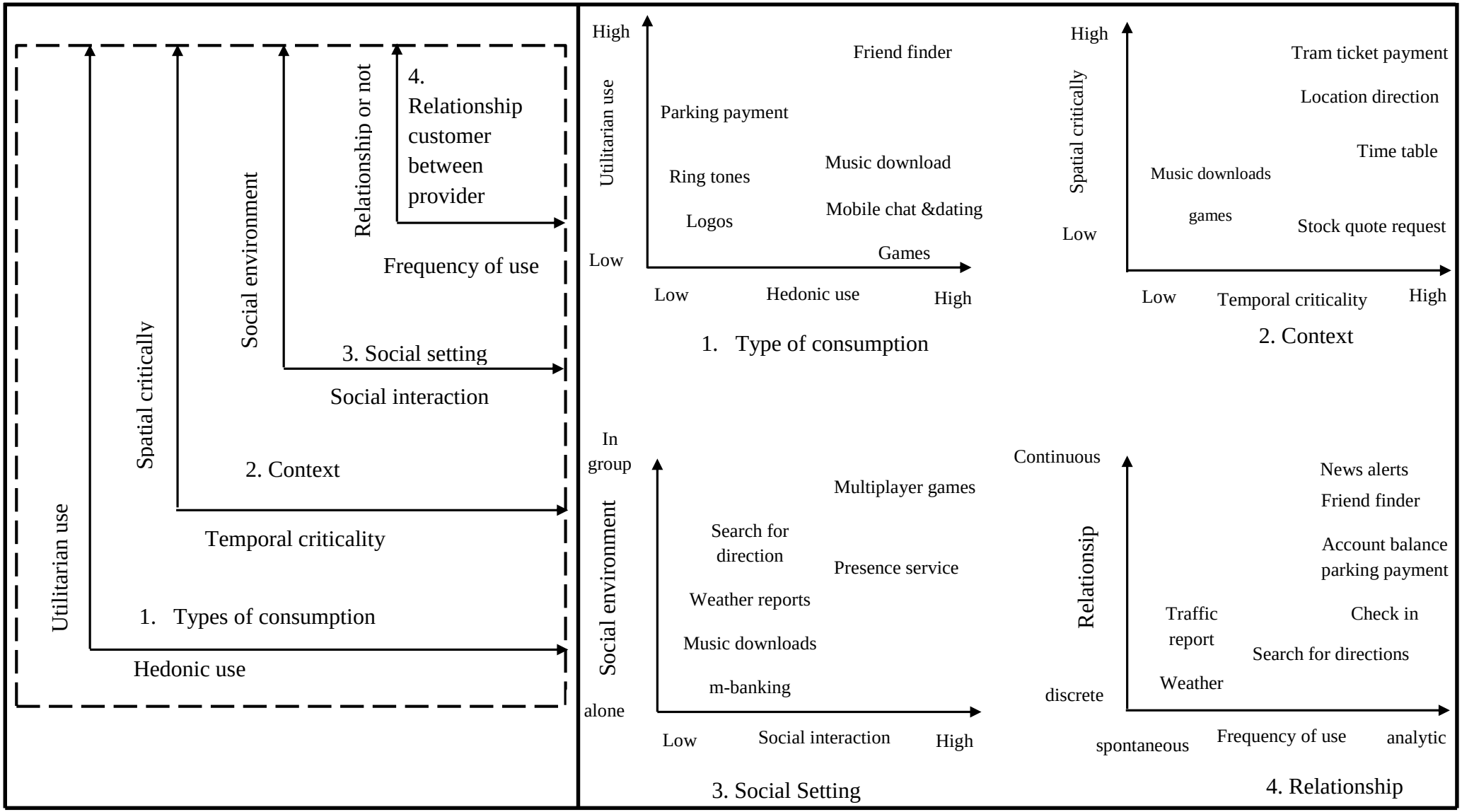


Figure 15 Classification of mobile services *(source: Heinonen and Pura, 2006: 5).*

However, mobile technologies' advent has led to new types of mobile services consumption. It is envisaged in literature that both utilitarian and hedonic values fundamentally contribute to the consumption behaviour (Childers *et al*., 2001; Babin *et al*., 1994). Under this view, various mobile services can be categorized as having utilitarian and hedonic consumption motives. Holbrook (1999) presupposes that consumption experiences are likely to involve more than one type of value simultaneously. Utilitarian motives generally refer to the functional and instrumental benefits of consumption offerings, which are considered as closer to necessities or needs. On the contrary, hedonic motives pertain to aesthetics, experiential and enjoyment benefits, which are perceived as being closer to emotive consumption (Childers *et al*., 2001; Babin *et al*., 1994).

Consumer behaviour driven by utilitarian value is typically satisfying functional needs and is related to task completion (Holbrook and Hirschman, 1982). Consumers who place emphasis on utilitarian value in using mobile services are likely to be users of task-oriented services. Due to the ubiquity of mobile services, consumers' perception of utilitarian value might be different from other traditional service encounters. Nysveen *et al*. (2005) classify mobile services (e.g. m-banking and news) as utilitarian aspects of mobile services. Kleijnen *et al*. (2007) findings reported that flexibility of use, convenience of time and place and personalization enhance consumers' utilitarian value of mobile service use. These services drive usage intentions because they are linked directly to the consumer's goals of information acquisition and completing transactions through mobile services (Kleijnen *et al*., 2007).

However, hedonic consumption focuses primarily on the emotional aspects, atheistic and enjoyment benefits (Addis and Holbrook, 2001; Hirschman and Holbrook, 1982). Hedonic value is more subjective and personal than utilitarian value. It is the experiential and emotional motivations of consumer behaviour that can be derived from the multisensory, emotive, and entertainment aspect of experience in the consumption process (Babin *et al*., 1994; Holbrook and Hirschman, 1982). In a mobile service context, hedonic value may be derived from the immediate pleasure or joy of communicating with other people on a mobile phone. Furthermore, consumers who seek hedonic value might find mobile services useful to respond to entertainment and fun (e.g. mobile gaming). Also, others might enjoy the emotional aspects of mobile services such as sending emoticons in text messaging or receiving funny clips. Nysveen *et al*. (2005) classify mobile services such as mobile gaming as reflecting the hedonic value of mobile services, which arouse feelings of fun and excitement.

Nevertheless, identifying value sought from utilitarian and hedonic mobile services consumption is a relatively daunting task. Consumers might actively take part in the service process and enjoy the fun experience while achieving a goal (Pura, 2005). Similarly, Li and Chen (2012) point out that while certain kinds of mobile service, such as m-banking services, appear to be more goal-directed consumption than purely hedonic experience, such as mobile gaming, it still does not exclude the possibility of being influenced by both utilitarian and hedonic motivations. In a similar vein, Babin *et al*. (1994) suggest, more generally, that a typical good or service consumption experience would have both of these dimensions.

Customer value is derived from the experience and interaction with a product and service. The Theory of Consumption Values (TCV) posits that values that motivate consumption behaviour are mainly functional, emotional, social, epistemic and conditional. Consumers' prefernces for centain values are likely to be expressed through consumtion. In this study TCV is employed as an analytical framewrok for assessing value in-use. Holbrook (2006: 213) deepens the link between value in-use and experience by stating:

> *''Value resides not in an object, a product or a possession but rather in and only in a consumtion expereince''.*

Hence, customers create value in-use through the interaction with an object (e.g. mobile phone). Due to the nature of the m-commerce, context of use might affect the consumtion sevice experience. Mobile phones have become indispensible in consumers' life and they use them at almost any time. Accordingly, the use context is assumed to affect essentially consumers' use of mobile services. Under this view, context of use and situational factors surrounding mobile services' use sitation may have an impact on value perceptions (Pura, 2005; Heinonen, 2004).

Value in-use is a concept which refers to the value that is realized and evaluated at the time of consumption (Payne *et al.,* 2012; Vargo and Lusch, 2004; Grönroos and Voima, 2011). Heinonen (2009) views value in-use as '*the positive (or negative) value that the customer expereinces when using the service*'. Woodruff (1997: 142) defines customer value as *"a customer perceived preference for and evaluation of those products attributes, attribute performances, and consequences arising from use that facilitate (or block) achieving the customer's goals and purposes in use situations".*

Building on this definition and Vargo and Lusch's (2004) S-d logic, Macdonald *et al*. (2011: 671) propose that *''value in-use is customer's outcome, purpose or objective that is achaived through service consumption''*. A key commonality among these defintions is that value is derived as a result of customers achieving goals. Also, these definitions appear to be grounded in the value in-use, in which value is realized not in the product but as a result of interaction with and usage of the product. Another similarity, is that value is embdded in and related to the usage context. However, Woodruff's (1997) definition highlights that there are some barriers which impede value perceptions. These barriers might emerge from product attibutes (e.g. quality) which hinder value creation. This indicates that a combination of positive or negative views held by consumers determine whether or not value in-use is created.

Value in-use is realized and evaluated during the time of consumption experience. Vargo and Lusch (2004) describe that value in-use is most often concetulized as a cognitive assessment. They further elaburate that value in-use evalution is subjective to very single customer since it is co-created with that customer. In a similar vien, Michel *et al*. (2008: 55) point out that value in-use is something perceived and defined by the customers when using a good or serivce. Concequtnly, customers' motivations of consumption experience create value in-use.

This study views smartphone usage as a consumption based on consumer research and the TCV. The physical and perceived attributes of smartphones provide customers with a bundle of benefits which satisfy their needs and goals. As Gutman (1982) points out, products and services are means of reaching end-states. In other words, a consumer may prefer a specific and expensive smartphone brand due to the the experience of owning it (e.g. self-esteem or the way s/he wants to be appreciated by others) and experiencing its functional attributes.

In summary, value is co-created with customers and assessed on the basis of value in-use during consumption experience. It occurs through the interaction with a product or service. Consumption expereince is likely to involve more than one type of value simultaneously. Therefore, value emerges through using mobile services in a particular situation and sometimes it emerges from possession of particular product or service. Customers' value creation may take place on different levels based on subjective evaluation and determination. Building on consumer behaviour research the present study deploys TCV to understand the underlying values and motives of m-applications services usage. It is applied to explain users' activities and experiences of the m-applications services which provides a useful supplement to the traditional conceptualization and explanations of non-TAM theoretical standpoints. Therefore,

in this study, the argument is that consumption values might provide better understanding in capturing value in-use of m-aplications services.

3.6 Customer-Perceived Value (CPV) of Mobile Services

A considerable volume of research has focused on perceived value as a significant determinant of consumer behaviour. One of the main reasons behind this is the fact that customer value has been regarded as a source of competitive advantage (Woodruff, 1997; Ravald and Grönroos, 1996). Similarly, Porter (1985) postulates that competitive advantage grows fundamentally firm the value a form is able to create. Further, Porter (1985) pointed out that value is viewed in terms of the price that consumers are willing to pay and superior value stems from offering lower prices than competitors for equivalent benefits or providing unique benefits that more than offset higher prices (Porter, 1985: 3). Value is a central concept in the S-d logic perspective. For this reason, more researchers and practitioners have become aware of value and suggested consumer behaviour is better understood when analysed through perceived value (Ostrom and Iacobucci, 1995).

Despite the importance of perceived value, little interest has been shown in understanding its conceptual basis, compared to other variables such as price, quality or satisfaction (Sánchez-Fernández and Iniesta, 2007). This can be explained by the fact that perceived value is a complex (Ravald and Grönroos, 1996; Woodruff and Gardial, 1996), polysemic (Zeithaml, 1988), subjective (Woodruff and Gardial, 1996; Babin *et al*., 1994) and dynamic concept. However, a considerable amount of literature has been published on perceived value in the mobile services domain as illustrated in Table 13. Due to the lack of clarity and complexity of value conceptualization, Sanchez-Fernandez and Iniesta-Bonillo (2007) classify the concept of 'perceived value' into one-dimensional and multidimensional research streams (Figure 16). The one-dimensional perspective underlines price-related studies and means-end theories. The alternative multidimensional perspective postulates that value consists of numerous, distinctive value dimensions which incorporate a broader range of customer perceptions than the one-dimensional position.

From the one-dimensional perspective, value has been identified through means-end theory and price-based research (Laukkanen and Lauronen, 2005). Multidimensional is classified into sub-categories of 'perceived value' which give prominence to hedonic and utilitarian values as main dimensions. The theory of consumption value (Sheth *et al*, 1991) is classified as a

multidimensional construct which presents consumers' choice decisions based on how they discriminate between five elements of value (functional, social, emotional, epistemic and conditional). A multidimensional perspective has been supported as better depicting perceived value dimensions (Childers *et al*., 2001; Sweeney and Soutar, 2001).

However, there is argument and little agreement on how to conceptualize and measure value due its complexity and nebulous nature (Landroguez *et al.,* 2013; Boksberger and Melsen, 2011; Gummerus and Pihlstrom, 2011; Pura, 2008; Sánchez-Fernández and Iniesta-Bonillo, 2007; Khalifa, 2004). Sánchez-Fernández and Iniesta-Bonillo (2007: 441) call for further research to clarify the nature of the multi-dimensional value perspective and its constituent dimensions to develop a comprehensive understanding of the concept. Also, Helkkula and Pihlström (2009) indicate that extent research has tended to focus on the antecedents and consequences of customer perceived value in marketing literature and view it as a linear function that has a positive effect on behaviour. It has been suggested that a multidimensional standpoint might be more suitable in a service context (Zeithaml, 1988; De Ruyter *et al*., 1997). Therefore, this study employs the theory of consumption values (Sheth *et al*., 1991) to identify value creation and determination in mobile services. The application by marketing professionals of a multi-dimensional perspective to customer value research has the potential to generate a greater depth of knowledge than the dominant one-dimensional approach, providing increased support for strategic marketing activities.

However, previous empirical studies of customer value in multi-dimensional form have suffered from a number of limitations. Specifically, a lack of consensus exists among multi-dimensional conceptualisations regarding the exact value dimensions comprising an overall customer value perception. For example, the leading typologies established by Sheth *et al*. (1991) and Holbrook (1999) underpin the most highly cited multi-dimensional investigations of customer value, yet differ in the value dimensions presented. In addition, both lack robust empirical derivation, resulting in further limitations due to their unsubstantiated nature.

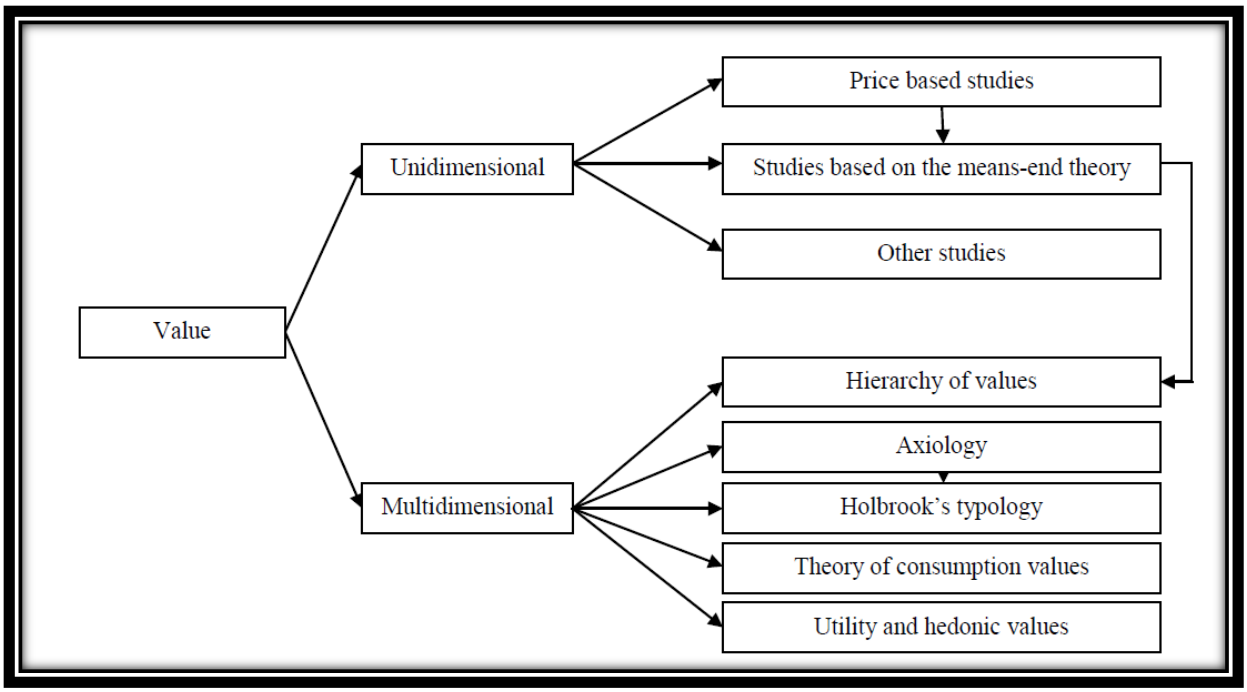


Figure 16 Research trends focused on value concept *(source: Sánchez-Fernández, and Iniesta-Bonillo, 2007: 430).*

The theory of consumption values (TCV) is a multidimensional model for investigating consumer actual behaviour (Sheth *et al*., 1991) (Table 12). It argues that consumers depict value based on their consumption motives (Holbrook, 1999). TCV is deployed in this study as a means of explaining users' decision to employ mobile services (e.g. m-applications content services) as an experiential (hedonic) consumption. According to TCV, consumers make informed purchase decisions after considering multiple value dimensions (e.g. social and emotional value). Hirschman and Holbrook (1982) describe consumers as either problem solvers or seekers of fun and enjoyment, which refers to utilitarian and hedonic consumption respectively. The consumption motives are explicitly reflected in TCV, which incorporates the hedonic construct of value. It argues that the customer decision is made based on perceived value, a theoretical construct that has been used by m-commerce researchers such as Turel *et al*. 2010; Kim and Han, 2009. Therefore, using a practice-focused theory such as TCV can provide an analytical lens to identify the consumption values that consumers seek from using a product and service, while also clarifying the context of that consumption value.

Table 12 A typology of theory of consumption values.

Functional value	It reflects value derived from effective task fulfilment. Often, it relates to superiority of alternative through utilitarian and physical attributes.
Emotional value	Acquired when a product/service arouses feeling or affective states.
Social value	Relates to social approval and the enhancement of self-image among other consumers, socioeconomic and other groups. Products are considered to possess symbolic or conspicuous consumption value in excess of their utility.
Epistemic value	Relates to experienced curiosity, novelty or gained knowledge. New experiences provide epistemic value, and people may be driven through needs of stimulation or arousal.
Conditional value	Refers to circumstances which impact choice. Such situations may be seasonal or emergency situations (Sheth *et al*., 1991). According to Holbrook (1999) conditional value depends on the context in which the value judgment occurs and exists only within a specific situation.

(Source: Sheth et al., 1991).

Users of mobile services follow a cognitive decision process and reflect on multiple value dimensions before they use mobile services. The decision to use mobile services is conceptualized as a cognitive process based on a broad perspective of value which concentrates on tradeoffs among several components such as utilitarian and hedonic motivations. Although TCV has not been directly applied to technology adoption, its unique perspective on consumption values can provide valuable insights to better understand m-commerce adoption drivers.

TCV reflects hedonic and utilitarian views of consumption by including goal-oriented consumption in functional value as well as emotional aspects of hedonic consumption (Turel *et al*., 2010; Pura, 2005). Also, the TCV framework takes into consideration context dependency (Pura, 2005). In addition, Gummerus and Pihlström (2011) note that the TCV combines cognitive and emotive aspects which capture the emotional, intangible and intrinsic value dimensions that are important in service consumption. According to Sweeney and Soutar (2001: 205) the TCV offers a well-suited foundation for extending the value construct as it was validated through an intensive investigation in a variety of fields in which value has been discussed. Pihlström and Brush (2008) provide evidence to support the existence of

interrelationships between the five dimensions of TCV in mobile services consumption. Furthermore, Standing *et al*. (2007) claim TCV provides a theoretical framework to examine the adoption of mobile services.

Pihlström (2008) applies the TCV model and highlights the need for adapting the theoretical framework to the context of mobile services. Further, Pihlström (2008) points out that for new electronic services a comprehensive conceptualization is required, especially since mobile services might not be purely used for utilitarian but rather for experiential and hedonic justifications. In line with this view, other researchers claim that lack of mobile services consumption should be understood from a behavioural perspective rather than a technology perspective (Yang and Jolly, 2008). The importance of TCV lies in positing that consumers balance value assessments for making informed, intrinsically and extrinsically motivated consumption decisions (Kim *et al*., 2007). In this study, perceived value theory is used to answer researchers' calls for more consumer-centric and less technology-oriented work (Yang and Jolly, 2008*;* Kleijnen *et al*., 2004).

Based on the previous discussion, it appears that perceived value effects on acceptance and use of mobile technology and services are well established in marketing literature. Some researchers argued that mobile service suppliers should understand how consumers perceive the value of their mobile phones through the ways that it is contextually situated in their everyday lives (Yang, 2012; Andrews *et al*., 2009). In addition, a better understanding is required of the ways mobile services might create value to enhance consumers' life (Grant and O'Donohoe, 2007; Anckar and D'Incau, 2000). The present study takes an experiential view of novel mobile services (i.e. m-applications) and applies Sheth *et al*.'s (1991) TCV as a theoretical standpoint to examine this issue. It is expected to contribute to mobile marketing theory and practice by identifying values that motivate and enhance consumers' everyday experiential consumption of m-applications content services Therefore, focusing on perceived value paves the way to service suppliers for a practical understanding of consumer behaviour. Also, it demonstrates concrete benefits of value in a specific use context. Thus, TCV provides an integrated approach to the underlying motives that drive consumer adoption in certain choice situations.

Table 13 Summary of research on mobile service value.

Author, Date and Country	Aim of the Study	Theoretical Stand	Research Method	Population & Sample Size	Relevant Findings to the present study	Areas for future research
Wang *et al*. (2013), Taiwan	Considering m-applications use as consumption this study aims to investigate the key determinant of behavioural intention to adopt m-applications using theory of consumption values.	TVC Sheth *et al.*, 1991	**Quant. :** a survey questionnaire	282 m-applications users	The findings confirm that functional, social, emotional and epistemic values have significant effects on behavioural intention to use m-applications. Emotional and epistemic values influences are stronger than functional and social values. Conditional value significantly affects m-application use via mediating functional, social, emotional and epistemic value.	For future research cross-national research is encouraged to investigate whether different cultures may have different values structures and different behaviour patterns.
Kim and Oh (2011), Korea	To provide a theoretical framework for identifying the key predictors of the adoption and continued usage of mobile data services (MDS).	Model of Utilitarian, hedonic values and prior experience variables	**Quant. :** a survey questionnaire	497 university student potential and actual users of MDS.	Utilitarian value is the only determinant of influencing MDS acceptance intention while the key determinants of MDS continuance intention are utilitarian and hedonic values. Utilitarian values are more critical evaluation criteria forming positive behavioural intention towards MDS rather than hedonic values among actual users. Compared with potential adopters, the strong effect of hedonic values on continued usage intention is noticeable.	Further research needs to investigate how user's utilitarian and hedonic of MDS evolve temporally. Different research population and location is favoured.

Kainth and Verma (2011), India	To design a framework to identify a "services mix" based on unique "value" proposition for various consumer types. Then, develop a multi-item customer perceived value scale, which later came to be known as "SPERVAL (Services Perceived Value).	CPV dimensions and their constituent value drivers	**Mixed-methods:** both with customers	**Qual.:** 8 Focus groups and **Quant**: a questionnaire with customers.	Findings present better understanding of the customer perceived value drivers in the service context. Main value drivers identified were functional value, actor intrinsic value, experiential value, spatial value and social value. They represent the various components of CPV that matter to a consumer.	Future research is need to broaden and deepen our knowledge of CPV in other county. Also, future research can aim to widen the scope of research in terms of overall industry type (product or service dominant) [p. 298].
Hedman and Gimpel (2010),	To explore the values that drive users' desire to adopt the mobile technology.	TCV	**Qual.:** three focus groups and 60 semi-structured interviews	Undergraduate-level students	Functional value proved to have strong impact on mobile adoption. Epistemic value is another important driver of using mobile technology. People want to learn about new technology not for what can be achieved with the assistance of it but just to learn about it. Social value emerges in two ways. Firstly, participants believed that they would gain social prestige because they possessed an expensive artefact. Secondly, they would be positively viewed by their peers. Emotional value influence by some unique aesthetic such as the large touch screen. Contrary to expectations, conditional and functional values were not significant drivers of adoption. Conditional value, which considers how specific contexts create value, was an immaterial adoption driver among the participants.	Future research is needed to empirically verify the model with larger respondent samples and a diverse sample of technologies. This can be done through qualitative and quantitative approaches.

Turel *et al*. (2010), Canada	Applying TCV as new method to study the adopting of hedonic digital artifacts and measured them in the context of mobile phone ringtones.	TVC Sheth *et al*., 1991	**Quant. : two rounds :** a paper-based survey 186 and online questionnaire 236	University students	It was proved that social value did not have an impact on the value assessment in the context of ringtones. The playfulness value, which is based mainly on enjoyment and moderately on escapism, is a strong predictor of the overall ringtone value.	Other factors such as cultural difference and personality trains may act as predictors of adoption behaviour of hedonic digital artifacts.
Yang and Lee (2010), USA	To explore how value perceptions of mobile data services (MDS) play a role in generating different consumer intention.	TAM with utilitarian and hedonic values	**Quant. :** Online a survey questionnaire	200 MDS users	In targeting male consumers, marketers should emphasize the benefits of MDS in terms of usability and functional utility which will enhance task performance. For instance, useful information according to individual interests such as m-banking can be more relevantly positioned with male consumers' needs and wants than female consumers. In addition, simple MDS design features enabling consumers to achieve their utilitarian goals in a timely manner will appeal more to male consumers than female consumers. Overall, the results suggest that intentions to use MDS were driven by different values (i.e. utilitarian and hedonic value) and perceptions to use the services. However, both male and female consumers' intentions to use MDS produced almost the same results. Gender can be used as a segmenting	Other demographic factors (e.g. age, education) should be studied. Moreover, future researchers should investigate the relationships between other values of mobile data services (e.g. social value, monetary value) in terms of consumer characteristics (e.g. demographic, lifestyle, socio-psychographic) to better understand driving values of mobile data service uses [p. 135].

					variable in the mobile consumers market when the services are categorized as utilitarian and hedonic value services.	
Kim and Han (2009), South Korea	It attempts to develop the theoretical framework by drawing from literature on IS and marketing domain from multidisciplinary perspectives. The multidisciplinary perspectives would provide a synergistic framework to study the users' decision processes of mobile data service (MDS) acceptance. In the marketing discipline, the ability of a service provider to offer superior value to its customers is regarded as the success of the service.	A framework posits information quality, system quality, and perceived fee as the key antecedents of utilitarian and hedonic values for MDS adoption intention.	**Quant.:** a survey questionnaire	120 potential MDS users	Utilitarian value was proved to have a significant influence of MDS adoption intention. However, hedonic value is found to have an insignificant effect on adoption intention. Perceived fee and information quality have a significant effect on utilitarian value, but information quality is significantly related only to hedonic value. Perceived fee plays a dominant role in evaluating utilitarian value while information quality takes a dominant role in evaluating hedonic value. The information quality of MDS is significantly associated with the accuracy, completeness, and currency. Similarly, the navigation, reliability, and timeliness are significantly related to MDS system quality.	A call for specific task adoption process to empirically examine the effects of task types on technology adoption in mobile commerce. Also, this is a cross-sectional study; therefore, a further research needs to examine how perceptions and attitudes evolve temporally from a dynamic perspective [p. 2316].
Lu and Su (2009), Taiwan	To provide better understanding of the factors that have an influence on the adoption of m-shopping services (MSS)	Composed model of extrinsic and intrinsic motivation factors	**Quant.:** e-mail survey questionnaire	382 m-shopping users.	Perceived enjoyment (intrinsic motivation) strongly affects the intention to use m-shopping rather than extrinsic motivation (i.e. usefulness). Mobile skilfulness is a key predictor of enjoyment and anxiety and proved to have a direct and significant influence on the intention. Ease of use was found an	Social factors can be added to explain the adoption of human communication devices. More studies are required in different m-commerce fields to validate findings.

					important and direct determinant of an influence assessment of enjoyment and usefulness. Anxiety was proven to be a significant negative antecedent of behavioural intention of m-shopping.	Mobile services are changing and there is a need for a longitudinal research to better grasp our understanding over time.
Yang and Jolly (2009), USA and Korea	To examine the differences and similarities in consumer mobile data service adoption behaviour by explaining the effects of consumer perceived value and subjective norm on using mobile data services between American and Korean consumers.	Sheth *et al*, 1991	**Quant.:** a survey questionnaire	400 mobile service users in America and Korea.	Findings revealed that the effects of four dimensions of consumer perceived value (functional, social, monetary and emotional) on attitude toward using mobile data services indicated that the effects of social and monetary values on attitude toward mobile data services differed between the two countries. Emotional value had the strongest effect on attitude toward using mobile data services for both countries. Thus, emotional value played the most significant antecedent role in the adoption of mobile data services in each country.	Research implications provide suggestions for additional approaches to measuring consumer mobile data service adoption behaviour and conducting cross-cultural research as well as investigation different samples for research population [p. 507].
Mallat *et al*. (2008), Finland	To explain the use intention of mobile tickets in a public transportation context.	TAM and Diffusion innovation theory	**Quant.:** a survey questionnaire	362 Helsinki citizen	Ease of use and usefulness were relatively weak which suggests that traditional TAM may not be a widely applicable determinant of the adopting decision. *Prior experience* on mobile ticketing is the strongest predictors of use intention with use of mobile phone. Social influence in terms of other people's recommendation and	An important avenue for future m-commerce research is to study the contextual factors and their effect on the mobile users' behaviour. Studies of contextual factors in

					perceptions was also a strong determinant of adoption. Unlike other studies, cost was not a significant determinant of mobile ticketing. *Contextual factors* including lack of cash and unexpected need to use public transportation and hurry were found significant in determining future use of mobile ticketing. Mobility seems to have a stronger effect on the adoption decision than the usefulness factor. This indicates that mobile services have unique benefits that are different from the usefulness of general technology.	actual use situations should be of interest.
Vlachos and **Vrechopoulo**, (2008), Greece	The main focus of the study is to model direct and indirect effects of service quality predictors, service quality, satisfaction and value, on consumers' behavioural intentions towards using a mobile internet service. Value approach as a trade-off and a cognitive concept. Service quality investigated in terms of connection quality (benefit/sacrifice) interaction quality(benefit/sacrifice), content quality (benefit/sacrifice), device quality (benefit/sacrifice), customer service (benefit/sacrifice), privacy	Trade-off between benefits and sacrifices (Zeithmal, 1988)	**Quant.:** a survey questionnaire	144 potential mobile Internet users	Findings provide empirical evidence that consumers' intentions are positively and directly influenced by three higher-order service evaluation constructs, namely service quality, satisfaction and value. Therefore, consumers use both cognitive and emotional criteria when evaluating a mobile Internet service. This has direct implications for design, delivery and communication practices. When communicating the benefits of mobile Internet services, providers should emphasize both functional and symbolic characteristics. In other words, managers should get both the service and the marketing right.	Further research should include the construct of perceived trust in identifying mobile Internet service acceptance. In addition, future research should examine the effects of relational, socially embedded aspects of mobile service evaluation [p. 288].

	(benefit/sacrifice) and contextual quality (benefit/sacrifice)					
Laukkanen (2007a), Finland	To explore and compare customer perceived value in internet and mobile banking service consumption.	Means-end theory	**Qual.:** In-depth Interviews	20 bank customers	The results indicate that there is a stark difference which can be seen using Internet and mobile mediums. The three key points that help in establishing insight into a customer's usage of a particular medium are efficiency, convenience and safety.	Mobile technologies such as 3G and improved displays of the devices will likely change mobile service use. Future research is needed on m-banking field [p. 795].
Turel *et al*. (2007), Canada	To explain the role of perceived value in user adoption behaviour because technology acceptance is a cognitive decision made by individuals for a specific IS. This process is like a consumer behaviour process, because it focuses on the cognitive aspects of decision making about any product or service. It is also consistent with behavioural theories, such as the TRA, since perceived value is a context specific perception that may drive user attitudes and behaviours.	Perceived value is measured by quality value, emotional value, value for money and social value.	**Quant.:** a survey questionnaire	222 current SMS service users	The model was different from other adoption models because it included both system (situation-specific) and value-for-money measures that seemed to be highly relevant to the acceptance of SMS. Perceived value of SMS was an important predictor of people's behavioural intentions for usage. Perceptions of positive emotions were the key factors influencing usage intentions towards SMS. Value-for-money proved to be a significant predictor of the usage of an SMS technology on a pay-per-use basis: many SMS users are price sensitive. Finally, the extent of perceived social value was found to have no impact on users' overall perceived value and future usage of SMS.	Mobile services are growing rapidly and there is a need to understand the underlying motives of user behaviour of mobile value added services [p. 71].

Kleijnen *et al*. (2007), Netherlands	To provide an in-depth understanding of value creation in the context of mobile transaction services intention usage. There is a relative paucity of knowledge about the specific costs and benefits associated with innovative mobile services and how they determine consumer value perceptions; therefore, understanding of the specific drivers of and barriers to value creation is crucial to help companies effectively allocate their resources to enhance consumer value perceptions.	Value as a trade-off; benefits (time convenience, user control, service compatibility) sacrifices (perceived risk and cognitive efforts).	**Mixed-methods:** both with customers	Qual.: 2o interview participants ; Quant: 232 (Survey questionnaire) **Samples:** Potential users of mobile transactions	Findings showed that time convenience and user control over service delivery are the most important benefits leading towards mobile usage intention. In mobile services domain, consumers are most concerned with the time-related gains they can obtain from mobile service delivery. Although risk has received considerable attention as a barrier to mobile services adoption, the respondents in this study seem relatively more concerned with the cognitive effort the service process requires. In addition, findings proved that mobile value has a strong impact on consumers' usage intentions.	Research model helps explain the usage intentions of consumers, A full understanding requires the investigation of use diffusion and the usage itself. In addition, future studies should examine behavioural styles, values, and beliefs related to temporal value while taking cultural differences into consideration [p. 44].
Lee and Jun (2007), S. Korea	To propose "contextual perceived value (CPV) of marketing offer" as a new construct to enhance the understanding of m-commerce users' repurchase intention (RPI) of mobile service. CPV is added as m-commerce (MC) specific additional benefits to understand consumers' RPIs in MC context. In this study, CPV is defined as a marketing offer in the MC context	An integrated model of repurchase intention (RPI) model including technology acceptance model (TAM),	**Mixed-methods:** both with customers	An in-depth interviews and a questionnaire with 296 respondents, Mobile users	Findings contribute to the m-CRM literature by empirically validating the effect of MC-specific variable (CPV of marketing offer) on both customer satisfaction and repurchase intention in m-commerce context. Furthermore, results of the study reveal that including the CPV, which is proposed as a MC-specific variable, has improved the overall fit of the model. This suggests that integrating CPV with CS and TAM	Future research could take a longitudinal perspective as this study is cross-sectional. In addition, further research is suggested to address the classification of CPV of marketing offer according to temporal, spatial, and personal

	as "the degree to which a person believes that receiving context-relevant information or services would enhance his or her purchase performance." [p. 802]	customer satisfaction (CS), and contextual perceived value (CPV) of marketing offer as a new MC-specific construct.			in a single model can better explain and predict MC consumers' RPIs. Consequently, the proposed model can serve as an initial blueprint for understanding the effects of contextual marketing offer on customer retention in m-CRM perspective.	components of the construct. And much work remains to be done regarding the relationship between CPV of marketing offer and other potential drivers of customer retention in MC context [p. 809].
Kim *et al*. (2007), Singapore	The research aims to examine mobile Internet (m-Internet) adoption as a new information communication technology (ICT) from the consumer perspective, and not just from the technology user perspective. A model proposed based on value-adoption model (VAM). The cost–benefit analyses are exemplified in the concept of value, which is defined as the trade-off between total benefits received and total sacrifices.	Perceived benefits (usefulness and enjoyment) and sacrifices represented by (technicality and perceived monetary).	**Mixed-methods:** both with customers	1 Focus group then a questionnaire, m-Internet users	The results support that extrinsic and intrinsic benefits prompt customers' intention to adopt M-Internet while monetary costs and non-monetary costs serve as barriers to adoption. Also, results suggest that perceived value of M-Internet is not only inferred by cognitive elements such as usefulness and fee, but also enjoyment, an affective element. Perceived sacrifices (perceived monetary and technicality) proved to have greater impact than perceived benefits (usefulness, enjoyment) on perceived value of adoption intention. Perceived value fully mediates the effects of customers' beliefs on adoption intention, which conforms to value research in the economics and marketing literature. Prior to this study, technology	Further research recommended in m-commerce driving use forces [p. 123].

					adoption models have not investigated the role of perceived value in determining adoption. This study proved by empirical effort the impact of perceived value in concert with technology adoption.	
Pura (2005), Finland	To analyse the direct effect of perceived value dimensions (monetary, convenience, social, emotional, conditional and epistemic value) on attitudinal and behavioural components of loyalty: commitment and behavioural intentions to use location-based service (LBS).	Combined value (Sheth *et al* 1991; Sweeney and Soutart, 2001).	**Quant.:** online questionnaire	411 current users	Commitment and three value dimensions: conditional, convenience and monetary value had a significant, positive relationship with behavioural intentions. Also, convenience value and monetary value had an effect on behavioural intentions, but their effect was minor compared to the other constructs. Social and epistemic values did not prove to have strong influence.	A call for further research in all kinds of mobile service contexts in order to be able to compare perceived value of different types of mobile services and generalize the results globally. Moreover, further research could explore if there exist possible niche customer segments that may have distinct motives for using location-based mobile services [p. 530].
Pura and Gummerus, (2007), Finland	To propose a mobile perceived value framework (MPVAL) to help the understanding of multifaceted nature of perceived value from customer's point of view.	Sheth *et al*. (1991).	**Qual.:** face-to-face interviews	31 actual users of mobile services	Conditional and epistemic values are primary found primarily trigging factors that intensify the experienced value of the services in a certain situations and enhance emotional, social, monetary and convenience value of the services.	Value perceptions vary between customers and further research is encouraged in analysing the effects of perceived value in different types

					Findings highlighted the importance of use situations and conditional value in influencing use of mobile services, in addition to customers' more permanent value perceptions and preferences that are related to the mobile content itself.	of mobile services and different mobile users groups in different cultural and situational milieus [p. 156].
Anckar and D'Incau (2002), Finland	To build an understanding of the elements and special features of wireless electronic channels that are value-adding from the consumer's point of view. The study approach to value uses mobile value to signify the value arising from the new channel.	A theoretical framework involves wireless value driven by cost savings, convenience and familiarity with the device.	**Quant.:** e-mail questionnaire	485 Potential users of mobile services	Findings supported the view that the demand side of m-commerce is search for value. The outcomes of the study highlighted the importance of adopting a consumer-centric approach when developing m-commerce strategies. Perceived value of spontaneous needs and time critical needs proved to have a direct influence on mobile service acceptance. In terms of customer segment of mobile services (age and gender only used by this study) findings revealed that women were more eager to show willingness to use mobile services than men. For age group, significant variations between respondents in the different age groups, with the oldest age group (66-74 years old) typically showing a much lower mobile service willingness that the other groups in particular the youngest respondents.	In order to support business decisions and the development of purposeful mobile services, an understanding of the elements and special features of wireless electronic channels that are value-adding from the consumer's point of view needs to be built. Moreover, this study is conducted in Finnish society and there is a need for cross-cultural settings to widen our knowledge of mobile services market [p. 58].

(Source: Author).

3.7 Antecedents of Mobile Services Perceived Value

Mobile services research has tried to capture a wider perspective of customers' perceived value. Heinonen (2004) recognizes that viewing value as a benefits-sacrifices model is unable to explain the sources of value and causes of sacrifice. Lin *et al*. (2005) criticised the unidimensional conceptualization of value (give-versus-get trade-off) for being unable to reflect explicitly the sources of value from a customers' standpoint. Similarly, Heinonen and Strandvick (2009) assert that identifying dimensions of services value to be improved are critical and more important than identifying the benefit or sacrifice facets. This necessitated a broader standpoint of perceived value having inputs leading to output reflecting consequence. This broader standpoint, emphasized by Woodruff (1997: 142), treats perceived value as a means to an end.

''Customer value is a customer's perceived preference for and evaluation of those product attributes, attribute performances and consequences arising from use that facilitate (or block) achieving the customer's goals and purposes in use situations" (Woodruff (1997: 142).

This definition guides the process of the concept of customer value by linking together product attributes with use situations and related consequences experienced by goal-oriented customers. This definition might be adopted from a supply standpoint by viewing value as having antecedents and consequences. Lin *et al*. (2005) note that the ability of multidimensional models to define value antecedents explicitly in addressing the complex nature of customer perceived value. Mass and Graf (2008) point out that value in financial services is an outcome of interaction among firm strategies, product characteristics, service environment and customer characteristics. This broader standpoint of value is needed to guide supply and demand side value creation and perception.

However, previous research disagrees on the antecedents of perceived value in services in general and in m-banking in particular. This is mainly because the antecedents of service perceived value are the result of a number of related factors. These are consumer characteristics, situational and contextual elements, quality requirement and m-commerce products and services (Figure 17). These factors emerged from consumer behaviour theories, explained earlier, in a mobile services adoption context. These are essential to contribute to determine perceived value in mobile services but not enough to explain antecedents of value on their own. Further discussion of these factors is presented in the following section. For the

purpose of this study, the interaction among these factors is considered to evaluate perceived value from a multi-dimensional perspective.

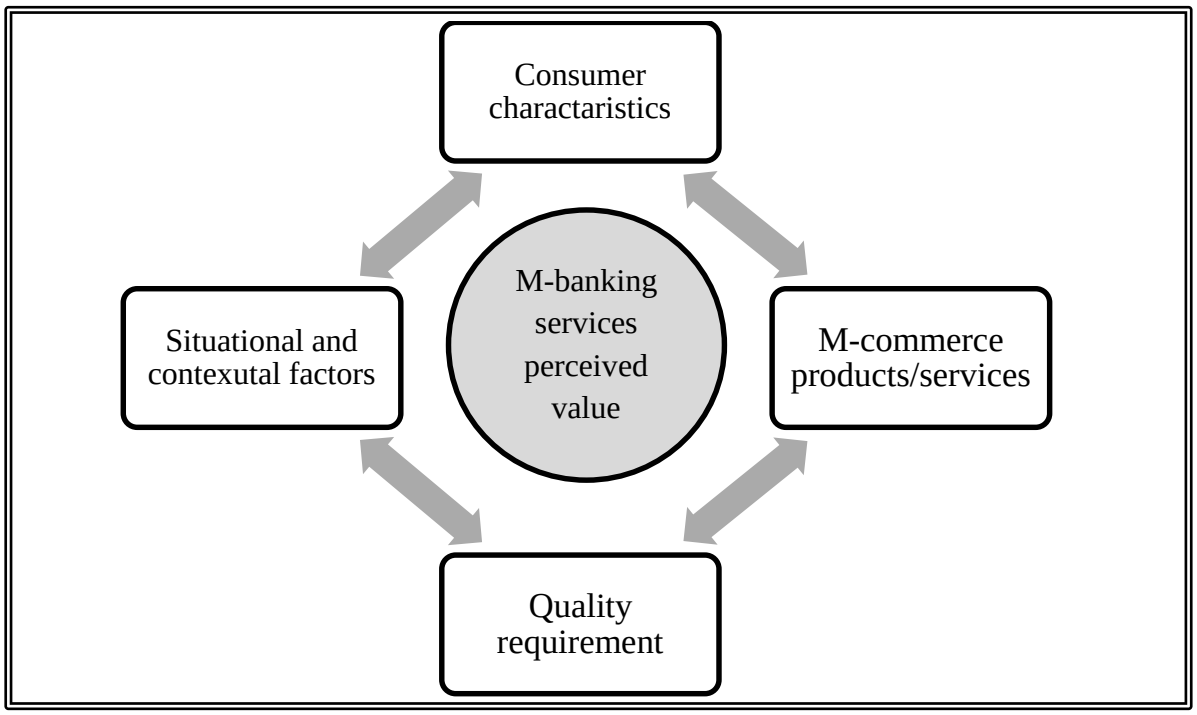


Figure 17 Sources of antecedents of m-banking services value perception *(source: Author).*

3.7.1 Consumers' Characteristics

The customer is the main beneficiary of MB services and the one who should judge the perceived value (Woodruff, 1997; Ulaga and Chacour, 2001; Khalifa 2004). Perceived value is ultimately subjective and varies among customers depending on their needs, preferences and financial resources (Ravald and Gronroos, 1996). According to Sanchez-Fernandez and Iniesta-Bonillo (2007) the customer's attitude reflects the subjective view on perceived value based on an interaction between the customer and product's utility.

Maslow's hierarchy presents a basis to understand consumers' motivation for decision making. It explains how the driving forces of a particular product (e.g. lifestyle) can influence consumers' intention to use a product or service (Evans *et al*., 2009). Customer characteristics and motivations towards using a particular product drive their needs. In the literature, a considerable amount of studies have been published on the characteristics of electronic banking users. A review of these studies reveals that e-banking users are characterized by young age group (Al-Ashban and Burney, 2001; Howcroft *et al*., 2002; Karjaluoto *et al*., 2002; Laforet and Li, 2005), high income earnings (Al-Ashban and Burney, 2001; Karjaluoto *et al*., 2002) employed (Karjaluoto *et al*., 2002), high level of education (Al-Ashban and Burney, 2001;

Laforet and Li, 2005). These are common variables which can distinguish e-banking users from non-users of e-banking.

Young customers are more predisposed to use mobile services than other Internet users due to the low cost entertainment which fits with their lifestyle (.Koenig-Lewis *et al*., 2010). This might be consistent with the finding of Bigne *et al.* (2005) who found that younger consumers prefer to adopt m-commerce shopping more than users of the Internet channel. Similarly, Laukkanen (2007) argues that for young customers with long Internet banking usage, experience influences m-banking adoption. However, the penetration of mobile devices among young consumers is found to be the critical factor which makes m-banking use more popular among this age group (Sulaiman *et al*., 2007). The situation is similar in Saudi Arabia. Most Saudi users of e-banking services are relatively young, due to the population of the country, which is considered as a young nation (Baker *et al*., 2007). Therefore, the age variable could be important in predicting customer adoption of new technology. In contrast, Zhu *et al.* (2002) found that older consumers prefer to use face-to-face contact to conduct their banking services for more personal privacy, which cannot be done through e-channels. However, demographic factors alone are not enough to explain new technology adoption; thus, other characteristics should be taken into consideration (Dabholkar and Bagozzi, 2002). Moreover, there is a common belief that consumer acceptance is the most significant to the development of m-banking (Koenig-Lewis *et al*., 2010). Hence, it is fundamental to understand what prevents consumers from using m-banking services.

Researchers disagree on the barriers that influence m-banking services users. Luarn and Lin (2005) found that perceived financial cost is a strong factor deterring users for m-banking adoption, while it was not significant in Jeong and Yoon's (2013) study. Similarly, Laukkanen and Lauronen (2005) report that perceived complexity impedes consumers from using m-banking, which was found not to be a significant factor in other studies (Akturan and Tezcan, 2010; Al-Jabri and Sohail, 2012). Consumers' past experience with technology use and lack of awareness were reported as essential barriers in m-banking adoption (Jeong and Yoon, 2013). This indicates that factors influencing m-banking use vary widely across nations and countries.

3.7.2 Situational and Contextual Factors

The basic function of mobile services is that they enable users to access services at anytime and anywhere and in any situation (De Reuver, 2008). Bobbitt and Dabholkar (2001) maintain that the role of context is important in explaining consumer behaviour in technology-based

services. Context is viewed as a critical moderating factor in consumer behavior research (Liang and Yeh, 2011). In addition, the intention to use mobile services was found to depend on the situational context (Bouwman *et al*., 2008). The nature of mobile services enables them to be consumed with the help of mobile device attributes (e.g. ubiquity). Woodruff (1997: 142) demonstrates that the role of product attributes depends on the use of situation, stating:
"The customer's use situation plays a critical role in evaluation as well as in desires. If the use situation changes, the linkages between product attributes, consequences and goals and purposes change as well"

Researchers have approached situational and contextual factors from various angles (Liang and Yeh, 2011; Barnard *et al*., 2007; Lee and Benbasat, 2004; Day, 2001). Barnard *et al*. (2007) define context as a set of conditions or user states that influence the ways in which a human interacts with a mobile computing; whereas Day *et al*. (2001: 106) define context as:
''any information that can be used to characterize the situation of entities (i.e. whether a person, place or object) that are considered relevant to the interaction between a user and an application, including the user and the application themselves. Context is typically the location, identity and state of people, groups and computational and physical objects''

Mobile services provide different kinds of value to mobile tasks and the impact may vary among mobile contexts in which the services are used. Van de Wijngaert and Bouwman (2009: 89) view use context as *''the very concrete environment in which a technology is going to be used''*. The use of specific mobile technologies is highly dependent on the interaction of physical context (urgency and location), the way information is handled (push, pull, retrieved, administrated) and task characteristics.

The emphasized aspects of context-aware services are users' place, who they are with and what resources are nearby (Day *et al*., 2001). Context is considered as a situation in which a particular action has been taken in specific time and space (Liang and Yeh, 2011). Lee and Benbasat (2004) describe three characteristics of mobile setting: spatiality, temporality and contextuality. Contexuality refers to the milieu in which the users carry out their tasks, such as interaction with friends who have used service or product before (Table 14). In addition, Lee and Benbasat (2004) suggest that the design of m-commerce customer interfaces should take into account the particular mobile setting. In this thesis, context relates to the situation in terms of ***where***, ***when*** and under which ***circumstances*** m-applications services are consumed. The 'where' represents the spatial value of the mobile (e.g. customers accessing m-applications

from anywhere) (Kainth and Verma, 2011). The 'when' represents time of use (i.e. time-critical situations when a customer lacks alternatives to pay for a parking space). The 'circumstances' of use may be physical or psychological (Pura, 2008; Mallat, 2007). As examples of physical conditions, mobile services may be used under circumstances when other service channels are unavailable in unknown locations. Psychological conditions are the customer's mood or desire for novelty-seeking in trying new mobile services (Pura, 2008). Therefore, in this thesis, context-related use of customer perceived value is a group of perceived value dimensions that reflect the situation where consumers adopt a m-applications service.

The effect of use context has been found as an important determinant of consumer choice behaviour of mobile services (Mallat *et al*., 2009; Klemettinen, 2007; Mallat, 2007; Bae *et al*., 2006; Laukkanen and Lauronen, 2005; Dabholkar and Bagozzi, 2002). Mallat (2007) finds that the adoption of mobile payment is dynamic and depends on certain situational factors such as lack of other payment methods or urgency. Lin *et al*. (2007) examine the effect of contextual factors on mobile value-added services and demonstrate that time pressure and location have a moderating effect on attitude toward the intention to use mobile value-added services. Similarly, Mallat *et al.* (2008) indicate that mobility and contextual factors including availability of other alternatives and time pressure in the service usage situation have a direct effect on the adoption decision.

Table 14 Complex interactions of locations, roles and stances.

Location	Stance	Role	
		Professional (on duty)	Private
Work	Busy	Productivity	
	Time on hand, waiting	Productivity or entertainment	Entertainment or Productivity
home	Busy	Convenience	
	Open to diversion	Entertainment	
Other	Busy	Efficiency	
	Time on hand, waiting	Efficiency or Entertainment	Entertainment, convenience or efficiency
Cell entries indicate primary benefit sought in that setting			

(source: Dholakia and Dholakia, 2004).

3.7.3 M-commerce Products/Services related Factors

Product capabilities and characteristics act importantly in launching marketing strategy. The influence of product characteristics on customers' adoption is well established in literature as mentioned previously. However, consumers may not use technology alone, but rather, they use these services and product related benefits for final ends. Hooley and Saunders (1993: 17) state that *''consumers are less interested in the technical features of a product or service that in what benefits they get from buying, using or consuming the product''*. Product attributes are configurable characteristics which involve quality, durability, styles, colours and other services. By designing products' attributes, suppliers might try to attract consumers towards certain consumption values.

The advent of mobile mediums has created novel value propositions. Unlike conventional perspectives which view m-commerce as an extension of e-commerce, forward marketing thinking should treat m-commerce rather as wireless in its own unique medium with its own unique attributes (Mahatanankoon *et al*., 2005; Siau *et al*., 2001). Some of these differentiating attributes open up business opportunities to reach customers at various (targeted) locations, for services configuration and offerings in novel (pinpointed) ways and enabling new types of shopping and service consumption experiences (Dholakia and Dholakia, 2004). Accordingly, it is important to consider mobile technologies' characteristics and their potential effects on customer service consumption (Figure 18).

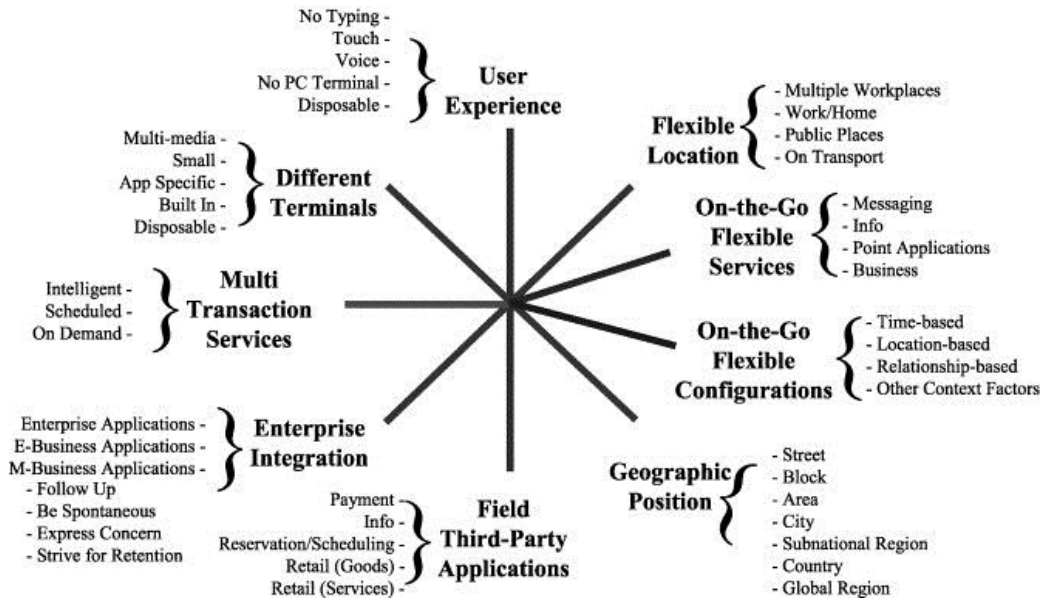


Figure 18 Key dimensions of the emergent m-business space *(source: Dholakia and Dholakia, 2004).*

The nature of m-commerce space creates rich and consistent mobile-based services consumption. Tiwari and Buse (2007) claim monetary value transactions should not be the focus of m-commerce as these neglect other services such as music download, ringtones, playing mobile games and mobile advertisements. Varshney and Vetter (2002) provide a detailed explanation of m-commerce services and identified several important classifications including mobile financial services (banking and brokerage), mobile advertising (user/location), proactive service management, location-based services, mobile auction, mobile entertainment services and wireless data centre application. Also, they mentioned that these applications are likely to be user-centric and highly personalized, context and location aware and transaction-oriented. Pagani (2004) indicates mobile services classification advantages which can be summarized under four categories; mobility (i.e. accessing real time information and communication e.g. need for work, emergency and contact), availability (possibility to be contacted in any time and place), functions provided (availability of personalized information or functions) e.g. MS Office compatibility, downloading facilities, organizer functions, games, identification, and accessibility. The perceived obstacles include micro design based on user needs and mobility, limitation in bandwidth (coverage area), cost, hardware and software functionalities (battery life, display, dimensions of the device and functions provided), and privacy issues (Pagani, 2004).

Ngai and Gunasekaran (2007) conducted a review of m-commerce literature (149 articles) and found that m-commerce applications and cases have various activities which include location-based services, mobile advertising, mobile entertainment services and games, mobile financial applications and product locating and searching. Along similar lines, Mahatanankoon *et al.* (2005) provide extensive m-commerce usage activities framework which was validated empirically using confirmatory factor analysis. The framework classifies m-commerce activities into 1) content delivery (e.g. using mobile web to notify and report important content information such as personalized financial news), 2) transactions which involve using a mobile device to transfer money between consumers and vusinesses, 3) location-based services (e.g. allowing location-based services recommendations based on shops' offering and consumers can respond on the spot) and 4) entertainment usages (e.g. music listening, video watching and games playing using mobile device).

Recently, Chong (2013) conducted an empirical study and tested the former fourfold classification of m-commerce and examined its relationships with demographic (age,

educational level and gender) and motivation variables (ease of use and enjoyment as intrinsic motivation and usefulness as extrinsic motivation). Using a survey questionnaire, data were collected from 517 Chinese respondents and hierarchical regression analysis; findings presented that age and educational level are significantly correlated with m-commerce activities while they vary between content delivery, transactions, location-based services and entrainment activities. Also, both motivation variables were important in determining m-commerce usage.

Based upon the discussion above it appears that m-commerce is superior to e-commerce due to its products' attributes. These attributes can affect consumers' perception and appreciation in a particular consumption activity to achieve a particular value. Gummesson (1995: 250) recapitulates this concept by stating *''Customers do not buy goods or services: they buy offerings which render services which create value…."* In sum, consumers perceive and appreciate product features as input to leverage their own value creation. Table (15) presents and discusses the key attributes of m-commerce, summarized from existing studies.

Table 15 M-commerce value propositions characteristics.

Characteristic	Explanation	Relevant Research Studies
Cost reduction	Mobile medium can reduce banks' costs by delivering mobile banking services and customer service which reduce the operational effects of other channel like ATMs or bank staff.	Balasubramanian *et al*., (2002); Riivari (2005); Anckar & D'Incau (2002).
Immediacy	Mobile channel provides immediate access to mobile services consumption and allows mobile users to perform certain tasks at the right time at right place.	Clarke)2001); Tiwari, *et al*. (2006); Larivière *et al*. (2009); Sarker and Wells (2010).
Localization	Refers to the ability to locate the geographical position of a user or mobile device to provide location-based services. Most smartphones have navigation feature to determine personal navigation and located-based services.	Balasubramanian *et al*., (2002); Clarke)2001); Mahatanankoon *et al*. (2005); Shankar and Balasubramanian (2009); Peppers and Rogers (2004); Laukkanen and Lauronen (2005); Larivière *et al* (2009).
Ubiquity	The distinctive feature of m-commerce which extends the time-space paradigm of traditional marketing and amplifies the importance of location, time, and personalization. Barns (2002) points out that interactivity of m-commerce offers consumers more control over what they see, read, and hear. This personal and ubiquitous nature means that interactivity may be provided	Clarke) 2001), Anckar & D'Incau (2002); Balasubramanian *et al*., (2002); Barnes and Corbitt, (2002); Nysveen *et al*. (2005); Shankar, *et al* (2010); Shankar and

	anywhere. Mobile services are becoming increasingly important for firms and consumers because of ubiquitous, universal, and unison access to information and services and the possibility for unique and personalized exchange of information (Nysveen *et al*., 2005).	Balasubramanian (2009); Larivière *et al* (2009); Sarker and Wells (2010); Okazaki and Mendez (2013).
Personalization	Mobile device usually belongs to an individual, while information and services can be requested by the user. Moreover, mobile device can support firms to personalize mobile content based on users' location because GRPS system.	Balasubramanian *et al*., (2002); Clarke)2001); Laforet and Li (2005); Shankar and Balasubramanian (2009); Sarker and Wells (2010); Larivière *et al* (2009); Ho (2012).
Instant connectivity	Mobile mediums are constantly "online" providing 'always-on feature' with the communication network (e.g. 3G), making significant access to real-time services (e.g. SMS service alerts). Also, this permits its users to engage in activities such as conducting transactions while travelling. Mobile devices now are operating on advanced network technologies (e.g. 3G, 4G LTE and Wi-Fi) which facilitate faster access to Internet and web sites that have been specially tailored for display on the small screens of mobile phones.	Lee, *et al.* (2003); Lu *et al*., (2003); Mahatanankoon *et al*. (2005); Chaffey (2007); Suki, (2011); Liao, *et al*. (2007); Larivière *et al* (2009); Sarker and Wells (2010)
Interactivity	Mobile devices are constantly 'online' because of mobile network disruption technologies such as 3G, 4G LTE and Wi-Fi, which enable firms to deliver customized services by identifying mobile users location and their geographical location by GPRS feature.	Balasubramanian *et al*., (2002); Clarke (2001); Anckar & D'Incau (2002); Barns (2002); Lee (2005); Laukkanen and Lauronen (2005).
Convenience	Convenience has several facets. Consumers may no longer be constrained by time or place in accessing e-commerce activities. M-commerce enables firms to communicate directly and engage with consumers in an interactive manner via two-way communication. In addition, convenience empowers consumers to gain information or perform certain tasks and services since they have network connection from anywhere at any time. This creates special comfort which improves service delivery.	Balasubramanian *et al*., (2002); Clarke)2001); Anckar & D'Incau (2002); Lee, *et al* (2003); Riivari (2005); Nysveen *et al*. (2005); Laukkanen, (2007); Kleijnen *et al*. (2007); Shankar and Balasubramanian (2009); Larivière *et al* (2009); Sarker and Wells (2010).
M-applications services Update Feature	M-applications services have the applicability of perpetual content and features update by m-applications develops and content providers. Mobile users usually receive a push alert notification via m-applications marketplace for permission to accept the new update service. M-applications update feature is the source of value engagement of m-applications for developers. It can measure: 1. Time spent per session; 2. Users' acceptance of m-application updates; 3. Users' times to recommend m-application use to friends and social networks.	This study

Multimedia	Mobile technologies have gained multimedia functionality over the years, e.g. most mobile phones shipped today include a digital camera, current models even have sufficient resolution for quality snapshots. This increases the hedonic value of mobile phone users.	Pousttchi *et al*. (2003); Park (2006); Larivière *et al* (2009).
Entertainment	Consumers prefer fast and easy access to entertainment. Entertainment on smartphone has spawned new business for companies who traditionally offered their products and services on other media such as CDs. Smartphones offer rich and interactive multimedia games applications supported with ubiquitous accessibility which is preferred by customer segments to enjoy the moment. Another example from the music industry; new technological breakthroughs (e.g. iPods) have empowered customers to buy and download music directly from supplier to their mobile devices. Other entertainment and multimedia m-applications include social networks, graphic designing, learning and education, digital TV, e-book reader and so on.	Anckar & D'Incau (2002); Nysveen *et al*. (2005); Park (2006); Larivière *et al*. (2009).

(Source: Author)

3.7.4 Quality and Perceived Value

Service quality is generally perceived as an important construct to sustain a competitive advantage. Nevertheless, the distinction between service quality and perceived value remains an occult. There is an argument as to the relationship of the two variables, with researchers such as Lappierre (1997) view perceived value is richer of customer overall evaluation of service than service quality, whereas others such as Zeithmal (1988) and Sweeny and Soutar (2001) view service quality as the (benefit) dimension of perceived value. In similar vein, Heinonen and Strandvick (2009) assert that service quality could be the source of benefit or risk from using the service. However, the role of quality is conspicuous in improving value perception. According to Kotler (2003: 84) quality dimensions are central drivers to value creation, he states:

''total quality is the key to value creation, as it is central to customer satisfaction''

However, service quality is an elusive construct has been examined from various perspectives. Several service quality models examined in literature depending on service context (Table 16). Table 16 shows the disagreement on the validity of specific service quality dimensions to all contexts. Indeed, this might be related to service delivery nature; face-to-face or through e-commerce (Cox and Dale, 2001). Also, quality dimensions could vary according to customers' experience and the degree of involvement with using e-banking services (Nilsson-Witell and Fundin, 2005). Vargo *et al*. (2008) denote that service quality is related to value in-use which

depends on the relationship between the beneficiary and the usage context. This indicates that not all quality dimensions have the same effect on perceived value. Those quality dimensions reflecting antecedents of perceived value depend mostly on the preference of bank customers for the way of getting the service (Vargo *et al*. 2007). Further, Nilsson-Witell and Fundin (2005: 154) stated that:

> *''Perceived value is related not only to service attributes, but also, to the ability of these attributes to fulfil certain goals of customers''.*

However, the most substantial contribution in this field is by Parasuraman *et al*. (1988) which is widely accepted. Service quality defined as "the degree and direction of the discrepancy between perceptions and expectations" (Parasuraman *et al*, 1988: 17) and comprises five dimensions: reliability (the ability to perform the promised service dependably and accurately), assurance (the knowledge and courtesy of employees and their ability to convey trust and confidence), tangibles (the appearance of physical facilities, equipment, personnel and communication materials), empathy (the provision of caring, individualized attention to customers) and responsiveness (the willingness to help customers and provide prompt service). Consequently, constructs such as personalization could be seen as a part of the service quality.

Personalization is a key construct in buyer-seller relationship development. The essential aim of personalization is increasing value to both parties through the exchange of information (Karat *et al*, 2004). Without a clear understanding of personalization, Suprenant and Solomon (1987: 86) point out that it may take different forms, stating:

> *''There appears to consensus among service providers that personal service is soothing their customers want, but little consensus about just what personal service means. In many cases, it seems to mean a smile, eye contact and a friendly greeting. In other cases, it means offerings to customize the basic service to suit the customers' needs or tastes''*

However, the role of personalization strategy may be interchanged with other terms such as individualization, one-to-one marketing and mass-customization (Huang and Lin, 2005; Ansari and Mela, 2003). In this study, personalization is viewed as a part of the technology to achieve good CRM through the mobile. As explained in Chapter Two, CRM is about better managing customers' relationship. It entails developing better strategies to know customers; then deploying this knowledge to better targeting individual characteristics and needs. This is consistent with Coner (2003) and Goldsmith (1999) who view personalization as a business

philosophy whereby firms need to learn about their customers' needs and deliver a customized product to match the right customer. This indicates anticipating and developing better segment strategy to serve customers' needs.

From customers' perspective, properly-done personalized services might encourage the customers to believe that the company is benevolent towards them; increasing trust which is an antecedent of loyalty (Ganesan, 1994). The effort involved in personalization leads to the attribution of benevolent motives to the company. Furthermore, Jiang (2000) points out that tailored products offer ways that a company could look into in order to derive customers' perceived value. Perceived value from tailored products arises from the anticipated fulfilment of desires or preferences that are expected to result from tailoring product attributes or benefits. Another component is the tailoring process itself, which is separated from the resulting fulfillment of product preferences.

The previous discussion demonstrated that service quality dimensions' relative effect on improving services value depend on the interaction between customer, use situation and the service supplier's efforts. This is in agreement with Woodruff (1997), who describes customer perceptions of value as time-dependent. Value is situational insofar as the situation-specific element of value changes occasionally based on a certain situation, use circumstances or location. For hybrid product-service offerings, assessment of quality through product-related attributes continues to be a challenge, to telecommunications providers and service suppliers.

Table 16 Service quality dimensions.

Author	Service context	Detailed dimensions
Jayawardhena (2004:198)	e-service quality (Internet banking)	Internet banking website service quality dimensions include: attention, trust, web interface, access and credibility.
Cox and Dale (2001: 129)	online retailing service quality	Dimensions of online retailing service quality with the comparison of the traditional dimensions of service quality are: website appearance, communication, accessibility, credibility, understanding and availability.
Jun and Cia (2001:282)	Online banking	Web site design, information, ease of use, access, courtesy, responsiveness, and reliability are significant dimensions that determine service quality.

Zeithaml *et al*. (2001)	online retailing service quality	Access, ease of navigation, efficiency, flexibility, reliability, personalization, security, responsiveness, assurance, site aesthetics and price knowledge.
Santos (2003: 239)	e-service quality (websites)	**Incubative dimensions**: proper design of website it includes ease of use, appearance, linkage, structure and content. **Active dimensions**: reliability, efficiency, support, communication, security, incentive.
Joseph *et al*. (1999: 186)	e-banking services	Convenience/accuracy, feedback/complaint management, efficiency, queue management, accessibility and customization.
Dabholkar (1996)	e-service quality	Website design, reliability, delivery, ease of use, enjoyment and control.
Parasuraman *et al*. (1988)	‘‘SERVQUAL’’ scale of measurement for service quality which used in different research studies	Determinants of service quality: reliability, response, assurance, tangibles and empathy.

(source: Author).

3.8 Conclusion and Conceptual Framework

This chapter presented the main theories applied to understand and predict consumer buying behaviour in e-banking services. The discussion explained the importance of integrating Relationship Marketing Theory in value creation and delivery to meet customers’ expectations and requirements. Suppliers’ service offerings delivered through products might potentially released by customers. However, Relationship Marketing importance is manifested by supporting customers’ value creation through customized solutions in the area of marketing services in general and m-banking services in particular.

Also, the chapter drew upon S-d logic in value explanation and customers’ role in value determination. It suggests that mobile phones are of the one resources that customers use to create value which customers need skills and knowledge to use the resources successfully. Due to the considerable role of value in predicting customer behvaviour, it was necessary to discuss the antecedents (requirements) of perceived value. The chapter shows mobile services

customers' value creation process which results from the interaction of a set of factors. These stem from the interaction among the characteristics of customers, who are the main beneficiary of value and are currently (or potentially) using the offered service, situational and contextual factors, m-commerce product/services related factors and service quality.

However, m-applications services have become the essential mobile channel to drive marketing content and services to consumers. Varnali and Toker (2010: 144) assert that mobile marketing is a compelling channel for digital marketers due to its potential to support one-to-one and one-to-many communication both cheaply and effectively; by stating: *''the mobile channel has morphed into an ultimate marketing vehicle'' (Varnali and Tokerm 2010: 144).*

In addition, Varnali and Toker (2010) acknowledge that research in mobile marketing is still in its early states. Further, Smutkupt *et al*. (2010) point out that smartphones present a new marketing environment in which firms should take part if they want to survive and flourish. The mobile medium is an attractive channel to marketers because of the ability to target, interact and establish relationships with consumers (Grant and O'Donohoe, 2007). The use of smartphones changes how consumers obtain and share information, which further changes the rules of the marketing game that marketers must adapt to (Ström *et al*, 2014). The value of smartphones is also supported by Chiem *et al*. (2010: 44) who maintain that:

> *''M-applications have created a new real of possibilities in mobile relationship marketing. Companies can use m-applications to create personalized content that promotes brand engagement and gives the mobile handset a 'sustainable utility'. However, achieving sustained usage and acquiring and retaining consumers amid the abundance of applications available presents a major challenge to marketers''.*

This is a central issue in Saudi Arabian banks and elsewhere in the world where there is substantial, unrealized, business potential in the development of m-applications. It seems likely that by identifying the various aspects of value perception and preferences in service delivery, marketing managers can more successfully design m-applications services content to promote their product and services throughout customer's value perception. This position is also supported by Anckar and D'Incau (2002: 49) who maintain that:

> *''the best way to see the true value of mobile phones as a marketing channel is to see it in the context of user situations''.*

Indeed, marketers should be aware that consumers might not necessarily appreciate and always receptive to marketing activity (Andrews *et al*, 2012; Grant and O'Donohoe, 2007). To make mobile marketing worthwhile, consumers should perceive its value and fulfil needs in certain context (Grant and O'Donohoe, 2007; Anckar and D'Incau, 2000). In order to understand how value is created by consumers, there is a need to go beyond customers' everyday activity and explore use situations where m-applications services perceived valuable. As noted previously, the five elements of TCV could capture potential value in the context of m-applications content. By understanding what kind of value is created at the time of usage, marketers can link between consumer bahviour and perceived value. Thereby it helps in gaining insights to better position the mobile marketing channel.

However, improving mobile services can be a dynamic process between both the supplier and consumers of the services. The rise of mobile phones as a channel to reach customers has imposed challenges on suppliers. This requires the need to understand changing customer behaviour to develop valuable and profitable service offerings. In addition, the literature review described existing knowledge on how mobile marketing can sustain value for customers and suppliers. It revealed the paucity of mobile marketing research and the calls to examine mobile value in managing buyer-seller relationship. Figure 19 maps the value co-creation of m-applications services within buyer-seller relationship in the context of m-banking services. It articulates the main theoretical components of the research model which guide the demand and supply side efforts in value co-creation.

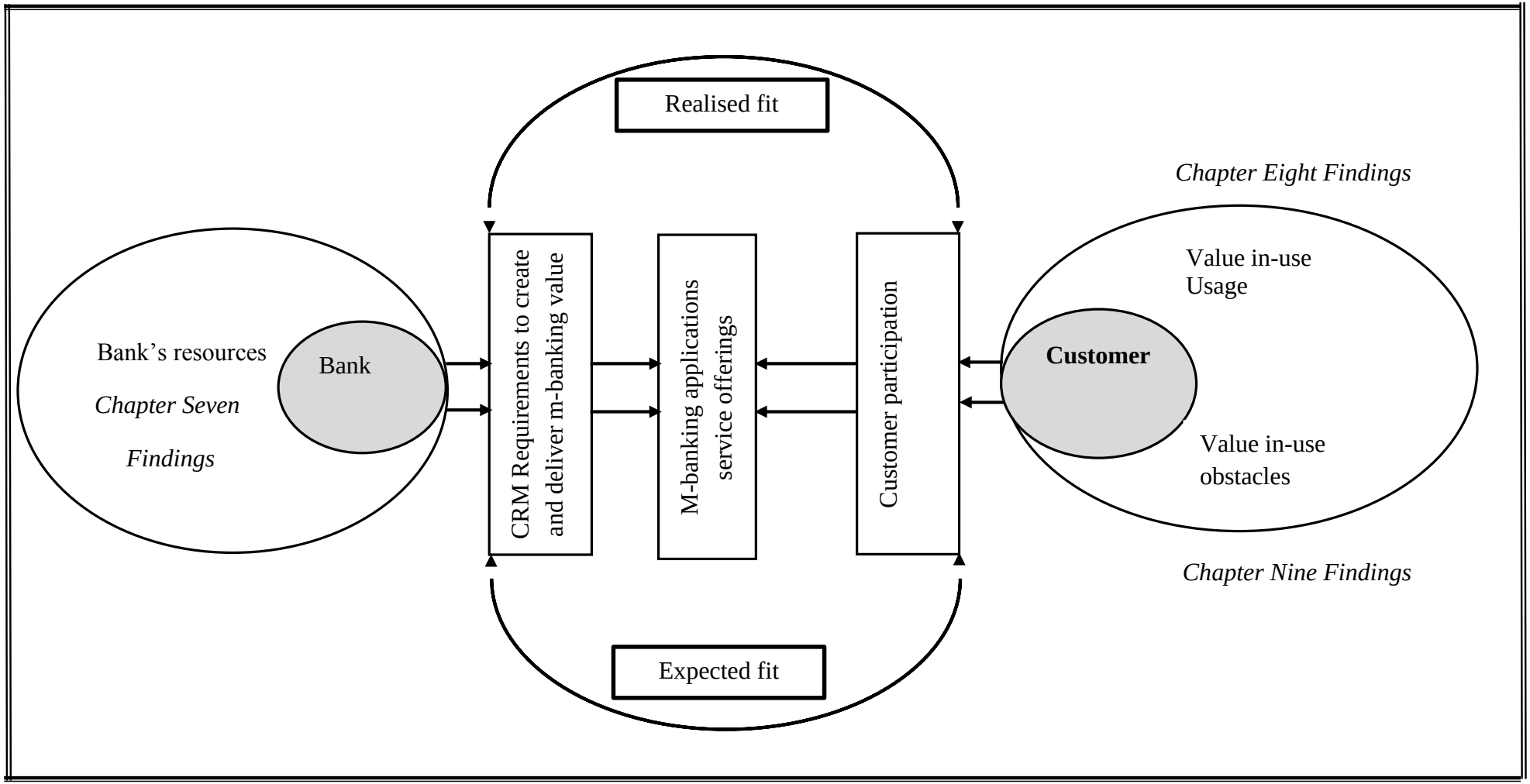


Figure 19 Buyer-Seller dyadic value co-creation: a model development. (*source: the Author*).

CHAPTER FOUR
RESEARCH CONTEXT: SAUDI BANKING SECTOR OVERVIEW AND MOBILE BANKING SERVICES

Table 17 Current chapter position in the research.

Chapter One	Introduction
Chapter Two	Role of Customer Relationship Management (CRM) in value creation and delivery
Chapter Three	An overview of customer buying behaviour in mobile services context
Chapter Four	Research context: Saudi banking sector overview and MB services
Chapter Five	Research methodology and data collection methods design
Chapter Six	First phase data anlysis: suppliers' persepctives
Chapter Seven	Second phase data analysis: part one
Chapter Eight	Second phase data anlysis: part two
Chapter Nine	Discussion and interpretations of findings
Chapter Ten	Conclusion, recommendations and research contribution

4.1 Introduction

Suppliers today are facing unprecedented challenges in banking services delivery. This is mainly due to the changes which take place in market place competition with highly empowered and financially literate consumers (Durkin and Howcroft, 2003). In addition, the banking sector is an area in which technology has had a fundamental impact on the everyday lives of consumers. The convergence of the Internet combined with modern mobile technologies has become an integral part of human life. The Internet has radically changed the manner of communication; creating further dimensions for customers' connectivity. It has the potential of technological impact on banking services which offers an ultimate tool in sustaining relationship marketing (Zineldin, 2000).

The Internet is one of the main technological developments that have impacted on businesses, particularly the banking sector (figure 20). In the wider business environment, technology development is a key driver of internal changes. Saudi Arabia is one of the fastest developing countries which has a growing banking market. Commercial banks operate in a competitive environment amid technological advances and government control policies. This makes the Saudi banking sector an appropriate context to examine e-banking services provision and trace

back m-banking services development in the buyer-seller relationship. Therefore, the aim of this chapter is to the present current research in its business and environmental context. Firstly, a brief geographical and cultural background overview of the Kingdom of Saudi Arabia (KSA) is provided. Secondly, this chapter provides an overview of the Saudi banking industry within which this research takes place. Also, it profiles issues related to financial services delivery, including Internet and mobile banking.

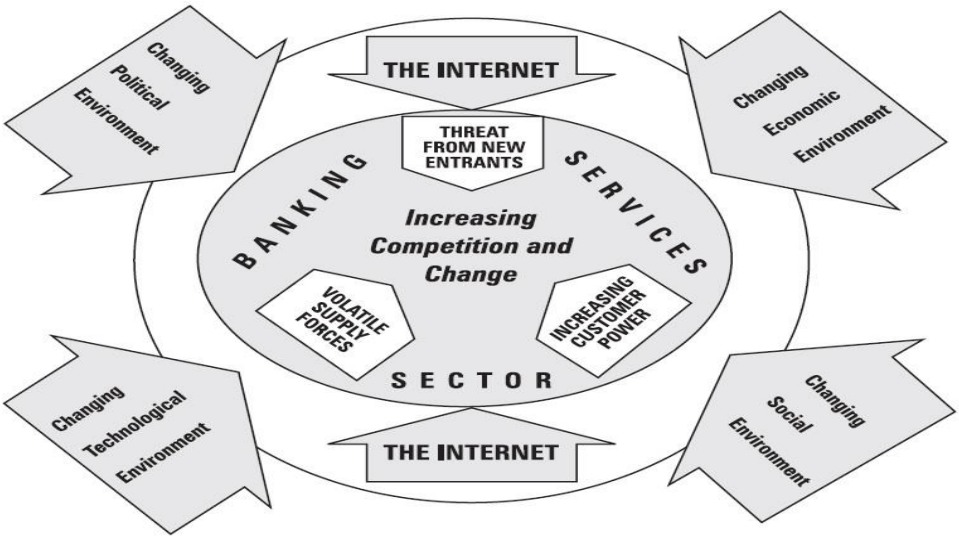


Figure 20 Banking services sector and interaction with internal and external environments forces (*source: Jayawardhena and Foley, 2000*).

4.2 Background of Saudi Arabia

The Kingdom of Saudi Arabia (KSA) is a country located in the Middle East. It occupies 2,149,690 square kilometers comprising most of the Arabian Peninsula. It is bounded on the west by the Gulf of Aqaba and the Red Sea; on the east by the Arabian Gulf, Qatar, and the United Arab Emirates; on the south by Yemen and Oman; and on the north by Jordan, Iraq, and Kuwait. For administrative purposes, the Kingdom of Saudi Arabia is divided into 13 provinces; Riyadh is the capital and is located in the central area of the kingdom, which is called the Najd region (Figure 21).

There has been an increase in the Saudi Arabian population at its fastest rate since the 1990s. According to the latest census in 2010, the number of the population reached 27,136,977 in total with 18,707,576 Saudi nationals and 8,429,401 non-nationals (CDSI, 2010). There is an increase for people who are under 14 years-old with 29.4% of the population (CDSI, 2010).

These figures indicate that young people represent a large percentage of the Saudi Arabian population.

Figure 21 The Kingdom of Saudi Arabia (source: *country reports, 2015*).

Saudi Arabia's economic sector depends mainly on oil resources; it has one of the largest oil reserves in the world (Assad, 2007). Saudi Arabia's large-scale oil production is reflected in an exponential rise in the national income. This has enabled the kingdom to become one of the biggest markets for imported goods with the rise of individuals' incomes. The youth population among Saudi society has an inclination towards consumerism, especially with changing patterns of lifestyle preference and individuals being more conscious of the retail market (Rahman, 2012).

4.3 The Role of Saudi Arabian Monetary Agency SAMA (central bank)

SAMA was established in 1952 to regulate the financial market in KSA. Its main duties include supervising commercial local and international bank branches, managing foreign exchange reserves, ensuring growth and stability of financial system. Also, SAMA has a significant role with commercial banks in upgrading and developing Saudi electronic banking products such as ATMs, consumer financing, electronic clearing, stock trading and electronic banking services (Saudi Arabia Monetary Agency, 2015).

SAMA functions as a central bank overseeing all financial services suppliers' activities. It monitors the banking sector through issuing effective policies and carrying out inspection to ensure the banking sector's compliance with governmental regulations. Furthermore, it is

responsible for informing consumers about the banking regulatory environment and disseminating information about the banking market.

4.4 Commercial Banking Sector of Saudi Arabia

Saudi Arabia has a profitable and stable banking industry, closely regulated by the central bank (SAMA). Saudi banks that conform to Islamic law prohibiting interest payments have the benefit of not paying their depositors to hold their money. The banking sector is composed of 12 Saudi-owned banks and eight branches of foreign banks (Saudi Arabia Monetary Agency, 2015). Saudi-owned banks include the National Commercial Bank (NCB), which is controlled by the Saudi government and operates under Islamic principles. The others are Al Rajhi Bank, Samba Financial Group, Al Riyadh Bank, Banque Saudi Fransi, Saudi British Bank, Al Jazira Bank, Saudi Investment Bank, Saudi Hollandi Bank, Al Inma Bank and Al Bilad Bank. Appendix 6 provides further details regarding Saudi banks' financial products and services. However, Saudi Arabia recently has opened its doors for foreign banks' branches. Foreign banks are permitted to have up to sexity per cent foreign onwenship, which has resultd in an increase in the number of insititutions with particial foreign onwenship that operate in Saudi Arabia. These include Gulf-based banks (Emirates Bank, Gulf International Bank, National Bank of Kuwait and Bank of Muscat), European and American banks (BNP Paribas, Deutsche Bank and J.P. Morgan). These banks operating in Saudi banking sector generally emphasise corporate, private banking and stock market management (Saudi Arabia Monetary Agency, 2015).

In addition to commercial banks, which meet general consumers' banking needs, five government-developed credit institutions are designed to meet private and corporate financing needs: the Real Estate Development Fund, established in 1974; the Saudi Industrial Development Fund; the Saudi Arabian Agricultural Bank, which was founded in 1964; the Public Investment Fund, which lends to "commercially oriented public corporations;" and the Saudi Credit Bank, established in 1971 to make personal loans to low-income Saudi citizens for marriage expenses, vocational training, and building projects (Saudi Arabia Monetary Agency, 2015). Besides commercial banks and the five government funds, only a few investment banks and other financial intermediaries exist. The venture capital and entrepreneur finance sectors of the economy remain underdeveloped, as most Saudis continue to rely on either family or friends to provide capital for business development.

The banking market in Saudi Arabia holds tremendous potential for investments. The four largest banks that dominate the market are National Commercial Bank (NCB), Samba Financial Group, Al Rajhi and Riyad Bank (Saudi Arabia Monetary Agency, 2015). The competitive landscape of the sector is changing steadily, since SAMA commenced to issue licences to new local banks and foreign banks branches. Likewise, the local banks started to open branches in other countries including the Gulf Cooperation Council (GCC).

Saudi Arabia's financial regulator SAMA has been active in liberalizing the sector (Saudi Arabia Monetary Agency, 2015). As noted above, SAMA has licensed a number of GCC/foreign banks to establish their presence in the Saudi market. Currently, five banks are operating in the Kingdom, including branches of Gulf and foreign banks such as the Gulf International Bank, the Emirates Bank, BNP Paribas and Deutsche Bank. In addition, licences were granted to several Gulf and foreign banks to open branches in the Kingdom. The attraction of the Saudi banking sector surpassed the region, as three foreign banks, namely, Deutsche Bank, JP Morgan Chase, and BNP Paribas were allowed to start operations in the Kingdom, further opening up the financial sector. Moreover, HSBC has been approved to establish an investment banking operation with Saudi Arabia British bank (SAAB) in Saudi Arabia. However, the competition is increasing domestically from newly set-up banks such as Al Bilad and Al-Inma Bank.

In May 2006, Deutsche Bank launched its brokerage business on the Tadawul (Stock Exchange) in the Kingdom of Saudi Arabia. The bank's initial trade marks the first time a broker from outside the region has become a full member of the GCC's largest stock exchange. For the bank, broking business is an important addition to its product mix in the Kingdom. The bank envisages huge opportunities to contribute to the development of the Saudi market by launching equity finance, mutual fund, and corporate advisory and money market businesses.

4.5 Saudi Arabia Mobile Banking Environment

Before describing current Saudi Arabia's mobile banking services, a brief introduction of the Internet and the information technology infrastructure should be given.

4.5.1 Mobile Services in Saudi Arabia

The great improvements by the Saudi Government in the telecommunications sector have led to immense adoption of technology-based devices. Saudi society provides a potentially wide consumer base for commerce and technology driven initiatives. The significant youth

population and government commitment on moving towards e-government have accelerated the adoption of information technology (Al Jarf, 2003). The number of mobile broadband subscriptions has soared gradually to reach 20.7 million by the end of Q2 2014 (CITC, 2014). According to CITC (2014) among the key change drivers for growth are the entry of new mobile services suppliers, healthy expansion in smartphones penetration and the decrease of mobile Internet data packages by mobile services suppliers for different user segments (Figure 22).

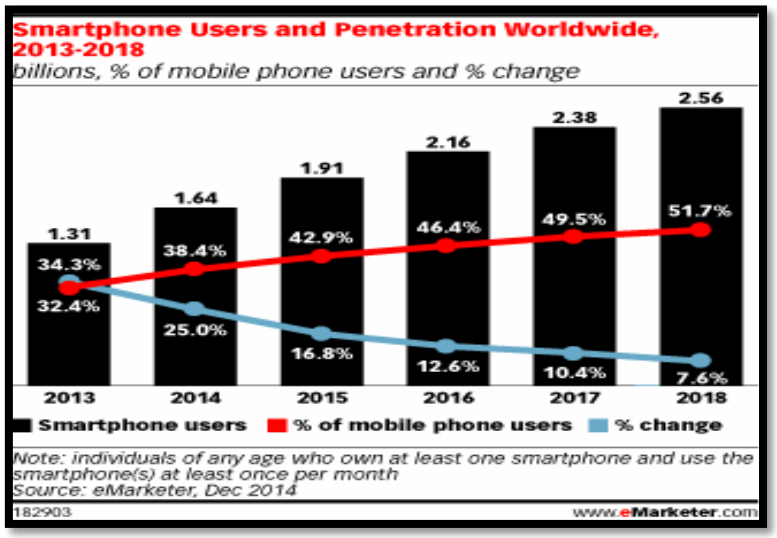


Figure 22 Future outlook of mobile phones penetration globally (*source: e-marketer, 2014*).

The emergence of smartphone handsets contributed to raising consumers' desire to be offered a range of mobile services. A recent study reveals that 43 per cent of smartphone owners in KSA use mobile financial services (Digital Arabia, 2012). There has been a growth in the use of m-banking services, particularly mobile payment using SMS banking, among Saudi consumers (AL-Riyadh Economy, 2011). According to a recent study, Saudi Arabia has been ranked foremost among the Arab world in the use of the Internet, with 20 hours a week for young people, compared to 13 hours for females (Al Arabiya News, 2014). In the digital age, consumers keep their mobile phones nearby, check them frequently and occasionally use multiple devices at once.

Saudi Arabia is considered the second largest country in the Middle East in terms of mobile phone adoption (CITC, 2014). The total number of mobile phone subscribers in Saudi Arabia grew to 50.8 million by the end of the second quarter of 2014 with penetration at 196.3 per cent (CITC, 2014) (Figure 23). A wide range of activities can be observed, including using mobile phones like social communication, simple text messages (SMS) and accessing the Internet,

depending on the technological features of the mobile phone and services rendered (Figure 6). A study conducted by Matar (2014) reports that smartphones have become a vital component to support e-commerce and Saudi consumers check their smartphones 150 times per a day and 23 times to read SMS texts. Further, Matar (2014) asserts that using smartphones for online payment is not an obstacle in e-commerce as it was with classic mobile handsets. Smartphones provide additional activities for mobile users to keep connected with others through new social media hubs. In 2013, the total number of Facebook users reached 7.8 million and 5 million of them use it via their smartphones; the number of Twitter users from Saudi Arabia is roughly 5 million active users, with an annual growth rate of 45% and 73 per cent use their smartphones as an access; Saudis spent 90 million views on YouTube videos, averaging 7 videos per day per user (Social Clinic, 2013).

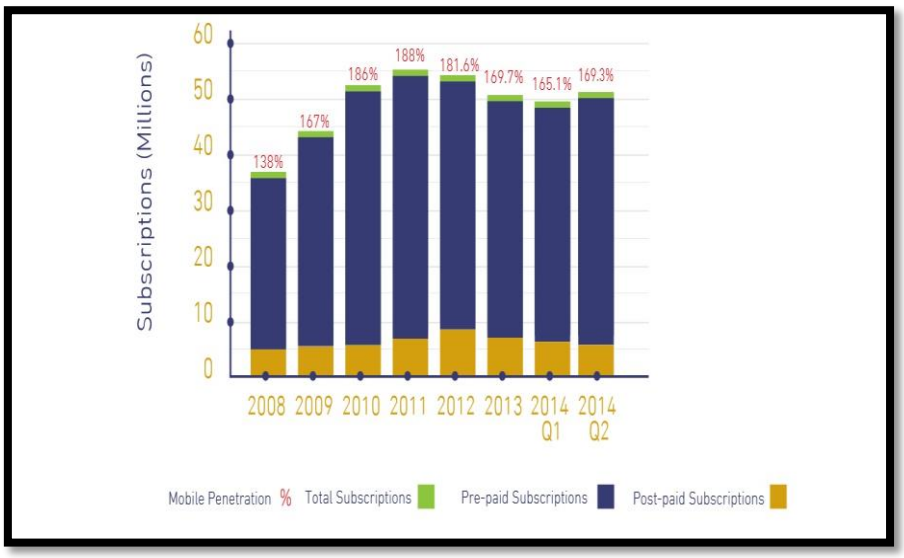


Figure 23 Mobile services market growth-total subscriptions in Saudi Arabia (*source CITC, 2014*).

4.5.2 Mobile Banking Services Definition

M-banking is one of the newest e-banking services innovations. E-banking services can be viewed from various perspectives. Frambach *et al.* (1998: 162) describe e-banking services as: *''a financial services innovation that offers banking firms opportunities to reduce costs of banking transactions, enhance the relationship with customers and to distribute wider range of semi-financial products''.* Accordingly, m-banking encompasses a broad range of financial activities via customer's mobile phone. In this study, m-banking refers to *''a channel whereby the customer interacts with a bank via a mobile device, such as a mobile phone or personal digital assistant (PDA)''* (Barnes and Corbitt, 2003: 275). With the increasingly wide spread

of smartphones (Valentine, 2011), m-applications usage has greatly developed among users. Among these, are MB applications designed by banking services suppliers and offered in specific market place, where the customer is required to download it on the mobile device to enjoy its benefits. In spite of mobile medium advances, it still has some limitations, namely, inconvenient input, security of transactions, small screen size and display type, which still need to be overcome (Zhou, 2011a, Clarke, 2001).

M-applications services have appeared as a means of marketing content delivery. Not surprisingly, m-applications have created an additional channel to deliver services ubiquitously. As a new technology, banking service suppliers perceive its benefits to provide better m-banking service delivery. In this regard, an innovation is defined as *''an idea, practice or object that is perceived as new by an individual''* (Rogers, 1995: 11). In this study, the interest is in consumer behaviour, with the emphasis being placed on the newness of the idea (i.e. m-applications) and its impact on mobile banking services provision.

In the banking sector, new technologies have a key role in managing and satisfying customers' needs (Jayawardhena and Foly, 2000). Unlike other mediums, the mobile provides direct and ubiquitous communication with consumers (Barnes and Scornavacca, 2003). Clarke (2001) summarizes the unique key drivers related to mobile value propositions, which include mobility, convenience, localization and personalization. Further, Kannan *et al.* (2001) describe four ways in which the mobile medium can be used to develop relationships with customers: **1**) personalize content and services **2**) track consumers across media over the time **3**) provide content and service at the point of need **4**) provide content with highly engaging characteristics. This is particularly important to deliver the right information at the right place to customers.

Saudi banks offer MB applications services alongside other e-banking services. M-banking allows full access to the details and transactions of personal accounts, as well as making credit installment and utility bill payments and transferring funds instantly (Al-Jabri and Sohail, 2012). Customers who intend to use m-banking need to download bank's m-banking application on their phones. Once the m-banking application is installed, customers can have access to a wide range of services free of charge. The cost depends on the mobile communication service operator (Al-Jabri and Sohail, 2012). Pousttchi and Schurig (2004) assert that mobile users have to be seen in relation to their context when using the application. Using focus groups, the authors identify four use cases of m-banking users' requirements (Table 18).

Table 18 Mobile banking use cases.

Use case	Description	Resulting need
Request of account balance	User is in mobile situation (e.g. in a department store and intend to know his account balance to verify his account before realizing a spontaneous purchase.	Quick obtainment of account balance
Control of account movement	User is waiting for an important cash receipt on his account. He intends to have the exact details of the cash receipt.	Continuous control over movements on the account
Instant payment	User is in a mobile situation and intend to make a payment by money transfer.	Instant execution of a bank transfer
Administration of the account	User intends to use spare time (e.g. waiting on the airport) to administer his account.	Quick and easy execution of transactions and administration is possible

(Source: Pousttchi and Schurig, 2004)

As the evolution of mobile services industry proceeds further, more value can be extracted from understanding usage patterns of consumers (Verkasalo and Hämmäinen, 2007). Classic mobile phones offer primarily voice-based service, SMS texts with a few other capabilities such as camera (Persaud and Azhar, 2012; Goldman, 2010). However, the uptake of m-banking is encouraged by improvements of mobile communication technologies such as Wireless network and 3G service (Pousttchi and Schurig, 2007; Robins, 2003). Those improvements support mobile mediums to offer better services and enhance location-specific information (Barnes and Scornavacca, 2003). M-banking has evolved over time due to the new emergent mobile technologies (see Appendix 5). Traditionally, m-banking used to be delivered on a push and pull strategy (Barnes and Corbitt, 2003). Push SMS are those that the bank sends out to a customer's mobile phone, without the customer initiating a request for information (e.g. account movement alerts); while pull SMS are those that are initiated by the customer, using a mobile phone, for obtaining information or performing a transaction (e.g. bill payment). This strategy allows banks to offer additional value-added mobile services which are increasingly important in gaining a competitive edge in the marketplace (Wang *et al*, 2006).

Although banks might still operate a push-pull strategy, however, the new generation of smartphones has advanced m-banking service delivery. Smartphones enable marketers to offer

pull-based services through wider smartphones capabilities such as mobile web browsing, e-mail, picture messaging, thousands of m-applications, video and audio playback, GPS, video camera and much more (Persaud and Azhar, 2012; Wong, 2012). Among these are the MB applications which offer users financial transactions, information services, viewing account balances and transfer between accounts via smartphones. In a similar vein, previous studies have explained that m-banking increases efficiency and convenience in bill payment due to immediate reactions to unexpected service need and time saving (Laukkanen, 2007a; Pura, 2005). Similarly, Anckar and D'Incau (2002) point out that consumers are most interested in services with high mobile value that meet spontaneous and time critical needs such as checking stock quotes. Despite such benefits, in a more recent study, Shaikh and Karjaluoto (2015) review m-banking literature and indicate that there is a paucity of studies that address the use of m-banking application via smartphones or tablets. The authors recommended that, since m-banking application usage is growing among mobile users, researchers need to analyse consumer attitude and behaviour via qualitative or quantitative research design.

4.6 Development of Electronic Banking Services

With the rapid improvement of technology, SAMA has recognized the potential to enhance and support the Saudi financial market by investment in emerging technology. SAMA has played a key role in providing comprehensive improvements to guide the banking system towards modernization (Saudi Arabia Monetary Agency, 2015). The key strategic improvements in the banking industry in Saudi Arabia included:

- The linking of all Saudi banks with the Saudi Payments Network (SPAN) in 1990. The system is the national automatic teller machine (ATM) and points of sale network that aims to encourage Saudi citizens and foreign residents to utilize the banking system. Moreover, it facilitates access to funds at remote locations, thereby reducing the bank notes in circulation. SPAN has increased the efficiency in the Saudi banking sector by avoiding ineffective competition at the transaction delivery points. SPAN provides support of international association transactions, such as Visa and MasterCard, originating either within or outside Saudi Arabia. SPAN has direct connections to these associations and provides the connectivity in a pass-through mode to the Saudi Banks. This support includes a full range of credit and debit card transactions at both ATM and Point of Sale terminals.
- The introduction of the Saudi Arabian Riyal Interbank Express (SARIE) system in 1997. It provides the mechanism for all Saudi commercial banks to make and settle

payments in Saudi Riyals (SR). SARIE provides the basis for improved banking products and services and the foundation for the payments system strategy in Saudi Arabia.

- The introduction of the Payment System (SADAD) in 2004 to be the national Electronic Bill Presentment and Payment (EBPP) service provider in Saudi Arabia. The core mandate for SADAD is to facilitate and streamline bill payment transactions of end consumers through all channels of banks in Saudi Arabia such as bank branch, ATM, online banking, telephone banking and SMS banking.
- The government entrusted the supervision of capital market operations to SAMA, and authorized commercial banks to act as brokers (Saudi Arabia Monetary Agency, 2015). With the introduction of the Electronic Share Information System (ESIS) in 1990, the share market witnessed great developments in all of its operations. In 2001, the capital market improved with the introduction of a new technical infrastructure known as the "Tadawul" system to underpin stock market operations. This is a fully integrated trading system providing real time share trading settlement and clearance of transactions on the same day. This technology provides an opportunity to investors to do transactions easily and conveniently via online or mobile banking.
- The mobile 'Tadawul' is a service that allows bank customers to trade and access real time market prices anytime, anywhere, using customers' existing accounts details. It provides instant access to the Saudi stock market and has a number of characteristics like trading and viewing of order status, amendment or cancellation of orders, customization of watch lists and access to the latest market information. Since 2009, the process of buying and selling stock shares online or by ATM or mobile banking has thrived among bank customers (Tadawul, 2011). Stock exchanges have benefited from information technology to improve operations efficiency, accuracy of trading, settlement processing and information dissemination. The new technological systems have increased the transparency of the stock market and improved customers' profitability with the banks (Al Jarf, 2003).

These technology-based changes have improved provision of e-banking services in Saudi Arabia with more efficiency and cost effectiveness. As a result, customers have the options of doing their banking services through ATMs, telephone banking, online and mobile banking. This has led to growth in online banking services and according to a recent banking report, the number of online users increased to reach 1,300,000 and more than 3,000,000 transactions

monthly (Tdwel, 2014). Besides that, ATMs are viewed as a supported banking channel which offers basic banking services such as cash withdrawal, cash deposit, balance inquiry bill payment and fund transfers (Saudi Arabia Monetary Agency, 2015). The total number of ATMs increased to 15,906 and the number of transactions reached 152,515,800 by the end of 2014 (Saudi Arabia Monetary Agency, 2015). Additionally, telephone banking offers a variety of banking services via an automated voice response system such as balance enquiries and bill payments.

4.7 Conclusion

This chapter presented the evolution of the Saudi Arabian banking sector. The context in which the Saudi banking sector operates generates motivation for the adoption of e-banking services in general and m-banking in particular. This is represented by a number of aspects which include:

- The increase in competition among banking services suppliers driven by the government changes in privatizing the banking sector by entry of new players from foreign bank branches. This puts additional pressure on domestic banks to offer e-banking services to attract or retain customers.
- The proliferation of smartphones and mobile Internet devices and rapid diffusion among consumers. For banks, this development of information technologies enables fundamental changes in customers' expectations towards m-banking services delivery. Therefore, choosing Saudi Arabia as a research context helps to examine the research phenomenon (i.e. mobile applications) and provide better understanding of consumer behavior in mobile services consumption. Also, this helps to investigate the role of culture, which might have an effect in developing banking services from a non-Western perspective.

However, the rapid growth of Internet users in the Kingdom of Saudi Arabia has encouraged banks to offer more services accessed via mobile devices. This highlights the changes that smartphones might cause in consumer everyday lives. Mobile technology frees users from previous limitations of location and supports service accessibility from anytime, anywhere. As a result, consumers have become ubiquitously connected to facilitate instant communication with the supplier.

CHAPTER FIVE
RESEARCH DESIGN AND REREARCH METHODOLOGY

Table 19 Current chapter position in the research.

Chapter One	Introduction
Chapter Two	Research context: Saudi banking sector overview and MB services
Chapter Three	Role of Customer Relationship Management (CRM) in value creation and delivery
Chapter Four	An overview of customer buying behaviour in mobile services context
Chapter Five	Research methodology and data collection methods design
Chapter Six	First phase data anlysis: suppliers' persepctives
Chapter Seven	Second phase data analysis: part one
Chapter Eight	Second phase data anlysis: part two
Chapter Nine	Discussion and interpretations of findings
Chapter Ten	Conclusion, recommendations and research contribution

5.1 Introduction

This chapter focuses on the research methodology adopted in this study. It outlines different stages of the research and the methods applied. The first section highlights a number of theoretical assumptions of the research paradigm. The second describes the selected research methodology. The third section explores the research approach and justifies the choice of methods for data collection and analysis. The methodological choices in this study are guided by the basic aim of expanding the existing knowledge on buyer-seller value creation. More specifically, the aim is to derive a better understanding of how mobile technology might be effective and enhance value creation for the dyad. The research is exploratory in nature, to identify the salient factors that might be found relevant to the research phenomenon. With the use of a case study research design, it is possible to obtain rich information by multiple methods. This was favoured when parties' perspectives were examined to ensure the value of findings. Qualitative research methods were applied, which include semi-structured interviews, content/document analysis and focus groups. These methods made it possible to get closer to the parties involved in the research. Figure 24 shows the main subjects discussed in this chapter.

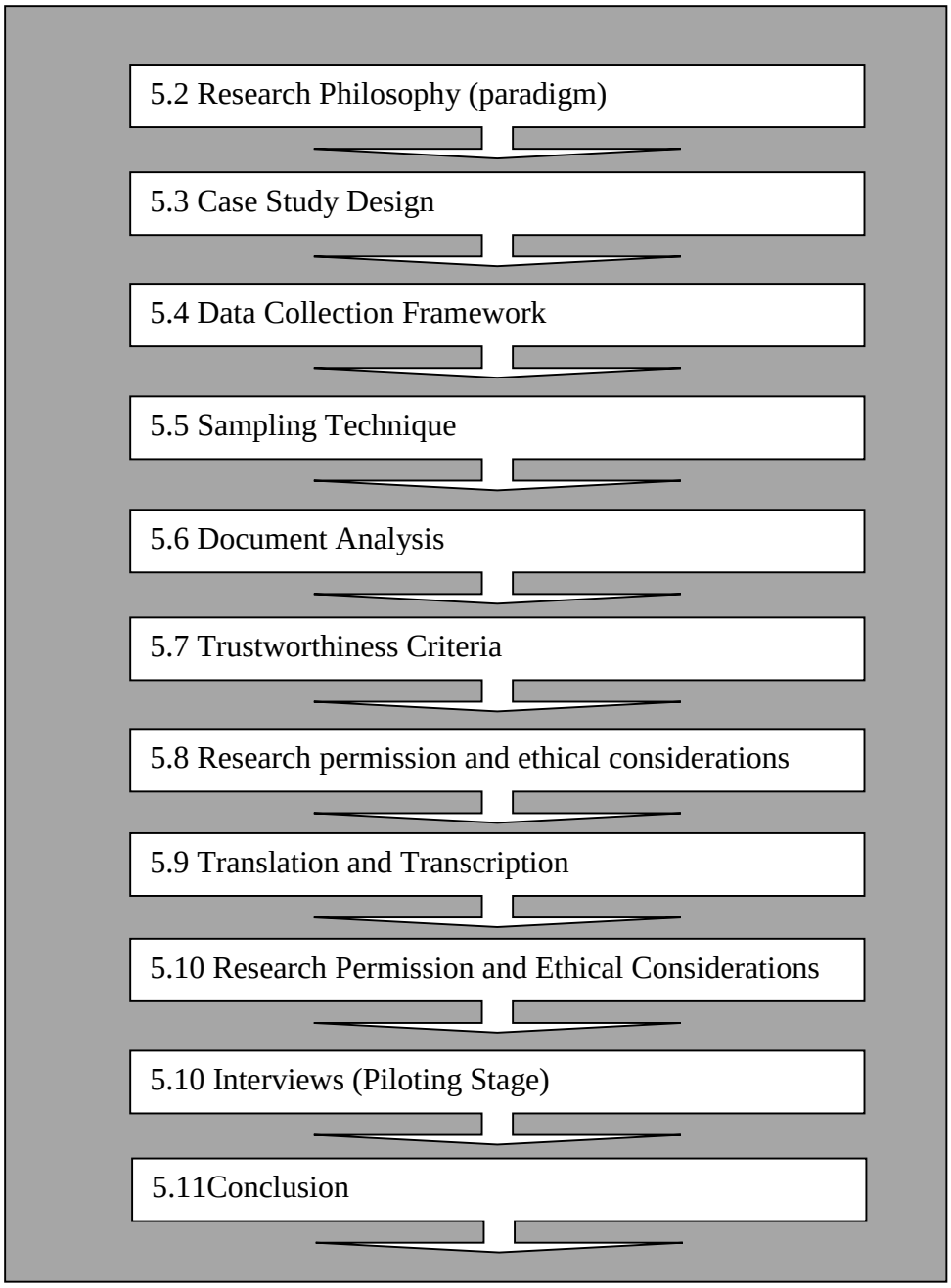


Figure 24 Structure of Chapter Five.

5.2 Research Philosophy (Paradigms)

The research philosophy determines important assumptions about the way the researcher will view the world (Easterby-Smith *et al.*, 2004; Saunders *et al*., 2007; Creswell, 2009). Easterby-Smith *et al.* (2004) highlight three essential reasons for the importance of the research philosophy with particular reference to research methodology. It might assist the researcher to be innovative in the methods of the research. It can assist the researcher to refine and narrow the research methodology to be used in the research. In addition, knowledge of research

philosophy will enable researchers to evaluate various research methods and avoid unnecessary work by identifying the limitations of the research at an early stage.

A research paradigm is an accepted system of belief which guides researchers to concentrate on focal, legitimate and reasonable facts in conducting their research (Creswell, 2009). Malhotra and Briks (2003:136) point out that *''a research paradigm is a set of assumptions consisting of agreed-upon knowledge, criteria of judgment, field problems and ways to consider them''*. However, Patton (1990) describes a paradigm as a general perspective to view the world, a way of breaking down the complexity of the real world. Consequently, to clarify the researcher's structure of inquiry and methodological choices, an argument is developed on research paradigms which supports the current study paradigm adoption, prior to discussion of specific methodologies utilized in this study.

There are three main assumptions which underpin a research paradigm. Denzin and Lincoln (1998) listed three basic philosophical assumptions which should be considered before embarking on any research (Figure 25).

- Ontology is related to theory of 'being'. It concerns the assumption on how the world is built, how 'real-world' is constituted and how far it is independent of our knowledge.
- Epistemology investigates the relationship between the inquirer and the known. Epistemological position reflects a theory of knowledge which explains the view of what we can know about the world and how we can know it.
- Methodological position aims to find out knowledge and carry out research.

These concepts are discussed in details in this section, as they represent the key elements in conducting social research.

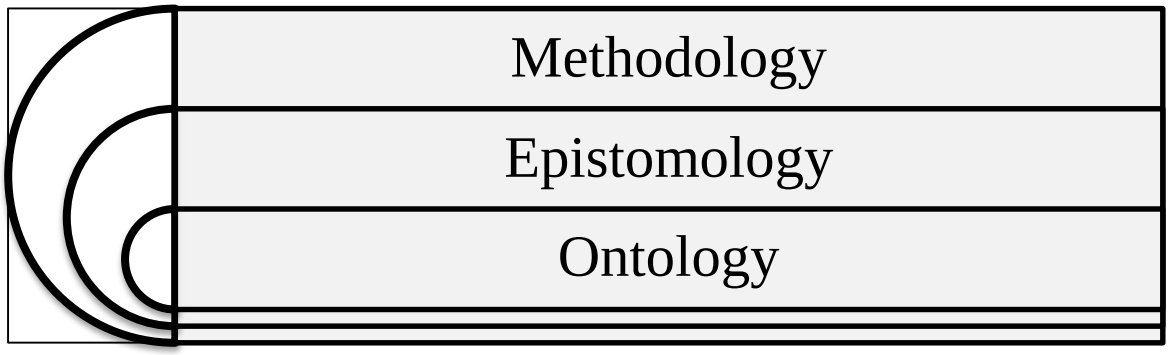


Figure 25 Basic philosophical assumptions in conducting research *(source: Denzin and Lincoln, 1998).*

❖ Ontology

Ontology is concerned with 'the study of being' and describes the claims and assumptions on the nature of reality (Blaikie, 1993). The ontological philosophy addresses the essential nature of human societies. It is concerned with what societies are, what units compose them and how these units interact with each other. The ontological question is the question of 'what' (Blaikie, 1993). It concerns the nature and form of social reality. From an ontological point of view, we ask if the world of social phenomena is a real and objective world endowed with an autonomous existence outside the human mind and independent from the interpretation given to it by the subject. Therefore, ontological assumptions inquire if social phenomena are 'things in their own right' or 'representations of things'. In ontology assumptions, the research problem is linked to the more general philosophical question of the existence of things and of the external world (Bryman and Bell, 2007). Indeed, the existence of an idea in an individual mind may be different from the existence of the object in the real world.

According to Saunders *et al.* (2007) there are two main views on ontology: objectivity and subjectivity. The objectivist approach has been developed from natural sciences to investigate social sciences phenomena (Saunders *et al*., 2007). It portrays the position that social entities exist in reality, external to social actors' view of their existence (Saunders, *et al*., 2007). On the other hand, the subjectivist approach denies the notion that reality already exists in the external world and instead endorses the idea that 'reality' is subjective and it is what each individual interprets it to be (Saunders *et al*., 2007). The debate of objectivism-subjectivism is to some extent similar to the different views on the theoretical and practical approaches to organizational culture, where objectivists tend to view the culture of an organization as something the organization 'has', whereas subjectivists view it as something the organization 'is', as a result of a process of continuing social enactment (Saunders *et al.,* 2007).

❖ Epistemology

Epistemological philosophy is concerned with the nature of knowledge, knowing and beliefs (Saunders *et al.,* 2007; Blaikie, 1993). It refers to what constitutes acceptable knowledge in a field of study (Saunders *et al.,* 2007). Blaikie (1993) has explained that epistemology is the theory of grounds of knowledge, expanding this into a set of assumptions about the ways of gaining knowledge of reality, how what exists may be known and what can be known. As ontology involves the nature of reality, epistemology is concerned with how we can know that reality and methodology identifies the practices used to attain knowledge of it (Blaikie, 1993).

According to Saunders *et al.,* (2007) epistemology is related to how and what it is possible to know, with reflection on the methods used to verify that knowledge. In other words, epistemology can support the researcher to spot and identify the starting point of the research process. There are two main viewpoints of research epistemology: positivism (depending on existing theories) or interpretivism (gathering notions and data to generate and build up new theory). Further discussion of these concepts is developed below. Then, the research paradigm selected for the current study is explained.

- **Positivism**

The positivist position is derived from natural science and assumes that science quantitatively measures independent facts about a single reality (Bryman and Bell, 2007; Saunders *et al.,* 2007). One of its important components is that research is undertaken in a value-free way (Saunders *et al.,* 2007). In other words, the researcher is independent of and neither affects nor is affected by the subject of the research. Positivism, in its broadest sense, rejects metaphysics and considers that the goal of science is to describe what we observe and measure (Bryman and Bell, 2007; Saunders *et al.,* 2007). It assumes that the social world exists objectively and externally and knowledge is observed in this external world. Also, it can explain cause and effect relationships in research which lend themselves to predicting results (Bryman and Bell, 2007; Saunders *et al.,* 2007).

- **Post-positivim**

Post-positivism provides an alternative to the traditions of positivism in conducting social research (Blaikie, 1993). It is grounded on the assumption that features of the social environment are constructed as interpretations by individuals and that these interpretations tend to be transitory and situational (Blaikie, 1993). Reality in the post-positivist approach is not a rigid thing but it is a creation of individuals involved in the research (Creswell, 2009). According to Blaikie (1993) cultural norms are the most significant factor in construction of reality. Post-positivists hold a deterministic philosophy in which causes probably determine effects or outcomes (Creswell, 2009). Furthermore, post-positivists believe that there are laws or theories which govern the world and these need to be tested and refined so that we can understand the world (Creswell, 2009).

- **Pragmatism**

Pragmatism considers that the choice of research philosophy has a direct link to the nature of the research questions (Creswell, 2009; Tashakkori and Teddlie, 2003). Recently, pragmatism

has gained considerable support as a worldview for mixed methods researchers (Tashakkori and Teddlie, 2003; Creswell, 2009). Tashakkori and Teddlie (2003) and Creswell (2009) contend that the pragmatic stance is intuitively appealing because it permits the researcher to study what s/he is interested in, adopting appropriate methods and using the outcomes in a positive way in accordance with the researcher's value system (Tashakkori and Teddlie 2003;Creswell 2009: 18). Pragmatism as a research philosophy combines the use of the inductive approach (i.e. developing a theory or gaining a closer understanding of the research context via qualitative data) and the deductive approach (i.e. testing a theory and hypotheses via quantitative data) (Tashakkori and Teddlie 2003).

Pragmatism agrees with the positivist and postpositivists on the existence of an external reality independent of our minds. Pragmatists believe that epistemological issues exist on a continuum rather than on two opposing poles. At some point, during the research process, the researcher and participants may require a highly interactive relationship to answer complex questions. At other points, the researcher may not need to interact with participants (e.g. when testing a priori hypotheses using a quantitative questionnaire which is distributed via an intermediary).To pragmatists, using qualitative and quantitative methods alike within a study is acceptable bearing in mind the basic values on which they are founded including the belief of value-ladenness of an inquiry and theory-ladenness of facts. Furthermore, pragmatists consider that reality is multiple and constructed, as well as, adhering in the fallibility of knowledge (Tashakkori and Teddlie 2003).

- **Methodology**

The methodological assumption focuses on the process of data collection, analysis and interpretation that researchers propose for their studies (Creswell, 2009). Knowledge can be obtained by a quantitative, qualitative or mixed methods approach (Creswell, 2009). Crotty (2005: 5) suggested that methodology *''is the strategy, plan of action, process or design lying behind the choice of and use of particular methods and linking the choice and use of methods to the desired findings''.*

There are two main approaches of reasoning in business research; deductive and inductive (Bryman and Bell, 2007). Quantitative methods usually tend to be deductive research using statistical measures. In the deductive approach (testing theory), a researcher develops a theory and hypotheses and designs a research strategy to test the hypotheses. However, in the inductive approach (building theory) a researcher would collect data and then develop theory

as a result of the data analysis (Saunders *et al.*, 2007; Bryman and Bell, 2007). These research approaches are attached to research philosophies; deduction owes more to positivism and induction to interpretivisim (Bryman and Bell, 2007).

The purposes of business research are classified into exploratory, descriptive and explanatory (Saunders *et al.*, 2007). Exploratory research is designed to examine what is happening, to seek new knowledge and to assess phenomena in a new light. Descriptive research aims to describe the characteristics of a population or a phenomenon (Bryman and Bell, 2007). Explanatory research emphases on studying a situation or a problem in order to explain the relationships between variables (Saunders *et al.*, 2007).

In exploratory, descriptive or explanatory studies a researcher can employ a variety of research strategies (Creswell, 2009). Some of these belong to the deductive approach and others to the inductive approach. The choice of the research strategy is closely related to the research questions and objectives. According to Creswell (2009) quantitative studies focus on two main strategies of inquiry: experiments and surveys; while qualitative research may be conducted using narrative research, phenomenology, ethnographies, grounded theory and cases studies; in mixed methods research, the different research strategies can be employed in sequence or concurrently mixed methods. Table 20 shows the main differences between quantitative and qualitative approaches in research design.

Table 20 Key Differences between quantitative and qualitative approaches to inquiry that guide data.

Quantitative Research	Qualitative Research
Tests hypotheses born from theory	Generates understanding from patterns
Generalize from a sample to the population	Applies ideas across contexts
Focuses on control to establish cause or permit prediction	Focuses on interpreting and understanding a social construction of meaning in a natural setting
Attends to precise measurements and objective data collection	Attends to accurate description of process via words, texts, etc., and observations
Favours parsimony and seeks a single truth	Appreciates complexity and multiple realities

Conducts analysis that yields significant level	Conducts analysis that seeks insight and metaphor
Faces statistical complexity	Faces conceptual complexity
Conducts analysis after data collection	Conducts analysis along with data collection
Favours the laboratory	Favours fieldwork
Uses instruments with psychometrics properties	Relies on researchers who have become skilled at observing, recording, and coding (researcher as instrument)
Generates a report that follows a standardized format	Generates a report of findings that includes expressive language and a personal voice
Uses designs that are fixed prior to data collection	Allows designs to emerge during study
Often measures a single-criterion outcome (albeit multidimensional)	Offers multiple sources of evidence (triangulation)
Often uses large sample sizes determined by power analysis or acceptable margins of errors	Often studies single cases or small groups that build arguments for the study's conformability
Uses statistical scales as data	Uses texts as data
Favours standardized tests and instruments that measure constructs	Favours interviewers, observations and documents
Performs data analysis in a prescribed, standardized, linear fashion	Performs data analysis in a creative, iterative, nonlinear, holistic fashion
Uses reliable and valid data	Uses trustworthy, credible, coherent data

(Adapted from Suter, 2012: 347).

5.2.1 Paradigm Adopted in this Study

The interpretivist approach is the research paradigm underpinning the current study (Table 21). It is an epistemological position that advocates that it is necessary for a researcher to understand differences between humans in our role as social actors (Saunders *et al.,* 2007). Interpretivists believe that reality can be understood solely through individual or group interpretation (Blaikie, 1993). Therefore, meanings are constructed by personal experience, providing various interpretations. Moreover, interpretivists believe that there may be different interpretations of reality but these interpretations are in themselves a part of the scientific knowledge they are

pursuing (Blaikie, 1993). The focus of the researcher is on understanding the meanings and interpretations of 'social actors' and to understand the external world from their perspectives. Such understanding is highly contextual and hence is not widely generalizable (Bryman and Bell, 2007; Saunders *et al.*, 2007). Moreover, interpretivists seek to understand motives and reasons and other subjective experiences which are time and context bound (Bryman and Bell, 2007). Easton (2009) points out that interpretivistism is a way used to defend the use of the case studies. Further, Easton (2009) explains that researchers interpret cases placing the weight of the research on authentic ways of data gathering and detailed data analysis. The interpretivist paradigm is not concerned with measuring or testing hypotheses, but rather to discover and describe the interaction between numerous independent social phenomena.

As the main aim of this study is to develop a better understanding of buyer and seller value creation in mobile applications services, it mainly depends on exploring the perspectives of the two parties to the dyad regarding value perceptions. Therefore, the interpretivist approach seems relevant to the current study because it assists in developing understanding of the social phenomenon under investigation (i.e. mobile applications) through constructing the meaning and subjective interpretations that human actors attach to them. Secondly, as explained by several scholars, the interpretivist paradigm emphasises the role of the researcher as an interpreter of the data and participants who represent information (Creswell, 1998). Therefore, in order to study and observe value creation and perceptions from the supply and demand sides, the interpretivist approach seems suitable to guide the researcher to interpret and analyse the data from actual participants based on their own backgrounds and experiences. The following sections discuss how the interpretivist approach was put into operation in the research process.

Table 21 Characteristics of common types of research paradigms.

Paradigm	Positivism	Pragmatism	Interpretivism
Methods	Quantitative	Mixed research design (Quantitative + qualitative)	Qualitative
Approach (logic)	Deductive	Abductive	Inductive

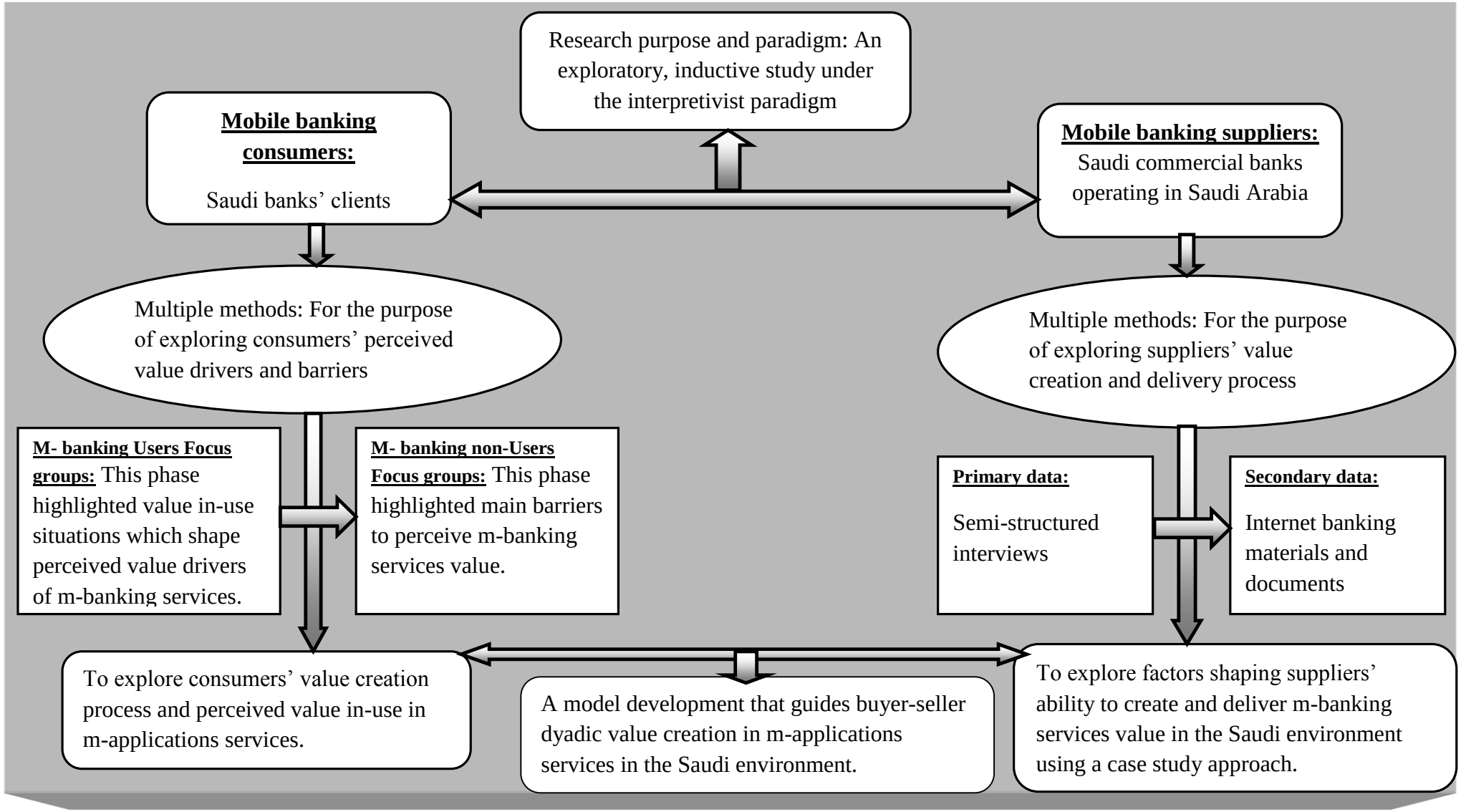
Epistemology	Objective point of view (knower and known are dualism)	Both objective and subjective point of view	Subjective point of view (knower and known are inseparable)
Axiology	Inquiry is value free	Values play a large role interpreting results	Inquiry is value-bound
ontology	Naïve realism	Accept external reality.	Inquiry is value-bound
Causal linkages	Real causes temporally precedent to or simultaneous with effects.	There may be causal relationships, but we will never be able to pin them down.	All entities simultaneously shaping each other. It's possible to distinguish causes from effects.

(Source: Tashakkori and Teddlie, 2003).

5.2.3 Research Paradigm Application

This part puts into operation the research paradigm adopted in this study. It discusses the process of data collection from both the mobile banking services suppliers and consumers. Figure 26 highlights the research main paradigm and introduces the research methods deployed to answer the research questions and meet the research objectives.

Figure 26 Research paradigm, data collection methods and research purposes *(source: Author).*



5.3 Case Study Research Design

The methodological choice in this study is guided by the basic aim of expanding the existing knowledge on buyer-seller value creation. More specifically, it seeks better understanding of how mobile technology might be effective and enhance value creation for the dyad. This aim could best be achieved through a case study research design (Yin, 2003). According to Perry (1998) research that investigates 'how do' and 'what are' questions is descriptive rather than prescriptive, which requires an inductive theory-building approach rather than testing theory. In other words, a case study is an inductive approach, as used in this study, to build up a new perspective where little is known about a research phenomenon (i.e. m-applications), not for developing research models which are basically based on a deductive approach to explain how a phenomenon should exist (Stake, 1995).

Case study is applicable to situations in which researchers require deeper understanding, a solid contextual sense, and inspiration toward theory building (Bonoma, 1985). Kumar (2011) describes the use of case study design when exploring an area of research where little is known and the researcher wants to have a holistic understanding of the phenomenon. Given the expeditious growth of m-applications and 3G/4G wireless networks, there is surprisingly little research in the literature on conceptual frameworks of m-applications (Yang, 2012). The review conducted by Yang (2012) identify only 14 articles in this area. Furthermore, Lamarre *et al*. (2012) state that few articles covered value creation from a consumer behaviour perspective in mobile marketing. Hence, the case study design is selected to provide a holistic overview of the research phenomenon as a qualitative research design (Table 22). A case study approach has been widely applied in the social sciences, with considerable support for marketing research as a rigorous research strategy in its own right (Bonoma, 1985; Perry, 1998; Riege, 2003).

Furthermore, case study research has received growing recognition among management researchers (Gummesson, 2000). Alloway (1977: 87) points out that case research is particularly useful when the audience are managers who can benefit from the findings. The author states:

''Research addressed to practitioners carries the additional burden of drawing recommendations from the findings which are, one, understandable and two, implementable. The familiarity of a managerial audience with the language, data format and analyses used in case research is, alone, a major advantage. Further, the conceptual and descriptive richness

of the data gathered enables the practitioner to assess for him/her the applicability of the findings.''

As a matter of interest, a common concern of case studies is the generalization of the findings. Yin (2003: 10) points out that: *''Case studies are generalizable to theoretical propositions and not to populations or universes. In this sense, the case study ... does not represent a 'sample', and in doing a case study, your goal will be to generalize theories (analytical generalization) and not to enumerate frequencies (statistical generalization)''.* This indicates that case study research is not sampling research (Yin, 2003; Stake, 1995). However, selection of cases must be done so as to maximize what can be learned in the period of time available for the study (Tellis, 1997).

One major aspect of case study methodology is that different methods are applied for in-depth investigation (Stake, 1995). Case studies tend to be selective, focusing on one or two issues that are fundamental to understanding the system being examined (Tellis, 1997). Stake (1995) describes case study as a form of research defined by interest in individual cases, not by the methods of inquiry used. Hartley (2004) describes case study research that consists of a detailed investigation, often with data collected over a period of time, of phenomena, within their context with the aim being to provide an analysis of the context and processes which illuminate the theoretical issues being studied. Similarly, Yin (2003) views case study as an empirical inquiry which investigates a contemporary phenomenon in its real-life context; when the boundaries between phenomenon and context are not clearly evident, in which multiple sources of evidence are used.

With the use of the case study, it is possible to obtain detailed and rich information from one focal phenomenon (Yin, 2003). In fact, and according to Johnston *et al*. (1999) case studies may have more influence on marketing managers than surveys. The business relationship that is studied is formed between two parties interacting in a mobile medium. That is to say, both parties to the interaction are studied instead of one. The perspectives of both parties of the business relationship need to be studied to be sure of the value of the findings (John and Reve, 1982).

Table 22 A schematic comparison of case study with experiment and survey approaches

Experiment	Case Study	Survey
Investigation of a relatively small number of cases	Investigation of a relatively small number of cases (sometimes just one)	Investigation of a relatively large number of cases
Information gathered and analyzed about a small number of features of each case	Information gathered and analyzed about a large number of features of each case	Information gathered and analyzed about a small number of features of each case
Study of cases created in such a way as to control the important variables	Study of naturally occurring cases, or, in 'action research' form, study of cases created by the actions of the researcher but where the primary concern is not controlling variables to measure their effects	Study of a sample of naturally occurring cases, selected in such a way as to maximize the sample's representativeness in relation to some larger population
Quantification of data is a priority	Quantification of data is not a priority	Quantification of data is a priority
The aim is either theoretical inference – the development and testing of theory – or the practical evaluation of an intervention	The main concern may be with understanding the case studied in itself, with no interest in theoretical inference or empirical generalization. However, there may also be attempts at one or other, or both, of these. Alternatively, the wider relevance of the findings may be conceptualized in terms of the provision of vicarious experience, as a basis for 'naturalistic generalization' or 'transferability'.	The aim is empirical generalization, from a sample to finite population, though this is sometimes seen as a platform for theoretical inference.

(Source: Gomm et al., 2000: 4).

As proposed by Yin's (2003) typology, case study can involve (i) a single case (holistic), (ii) a single case (embedded), (iii) multiple cases (holistic), (iv) multiple cases (embedded). The single case study design indicates the deployment of one case study and it is holistic when it involves simply one unit of analysis or the case itself; while it is embedded when it uses more complex subunits of analysis (Yin, 2003). However, multiple case design implies examining several cases and it can be holistic when each holistic case includes only one unit of analysis, while it is embedded when each case involve multiple units of analysis (Yin, 2003). The unit of analysis is central to understanding and implementing the case study (Yin, 2003; Patton, 1990). According to Patton (1990) there is no divergence between case and the unit of analysis. The case is simply identical to the unit of analysis (Patton, 1990). Unit of analysis refers to the actual source of information (e.g. individual, organizational document) (Yin, 2003).

A multiple case study design must follow a replication rather than sampling logic (Yin, 2003). When no other cases are available for replication, the researcher is limited to single-case designs. Yin (2003) pointed out that generalization of results, from either single or multiple designs, is made to theory and not to populations. Multiple cases strengthen the results by replicating the pattern-matching, thus increasing confidence in the robustness of the theory (Yin, 2003). Thus, in the present study, a multiple-case study methodology was applied in order to find patterns through replication logic as Yin (2003) suggests. In addition, Kumar (2011) describes the use of case study design when exploring an area of research where little is known and the researcher wants to have a holistic understanding of the phenomenon.

As explained earlier, m-applications are still nascent and little is known about them (Yang, 2012). Because several data sets needed to be collected to examine value creation for buyer-seller, this research falls into the embedded category with multiple units of analysis (Yin, 2003). The approach to unit of analysis selection was based on the most informative participants for the investigated problem. Consequently, the research targeted decision-makers and mobile banking directors and clients in all 12 commercial banks operating in the Saudi market. The aim was to explore their perspectives of m-applications services provision. In addition, it was planned to gain a broader understanding of m-applications value from the supply side. In addition, suppliers' online banking channels and mobile applications content were examined to generate more holistic understanding of value created and delivered to customers. On the other hand, focus groups were held with MB applications users and non-users in order to explore customers' perspectives regarding their value perceptions. It was intended to examine suppliers' perceptions in relation to initiating banking services in m-applications and the strategies being implemented to create value for their customers. Therefore, semi-structured interviews were applied to extract interviewees' standpoints. The interviews were held at banks' headquarters with twelve banks official responsible for mobile banking services.

Figure 27 illustrates the research strategy with the replication approach of this research. Because the scope of value creation in m-applications services is considered to be wide, the cases were selected to cover the broad setting of banks delivering m-applications services. According to Eisenhardt (1989) this kind of theoretical sampling enhances the generalizability of the emergent theory.

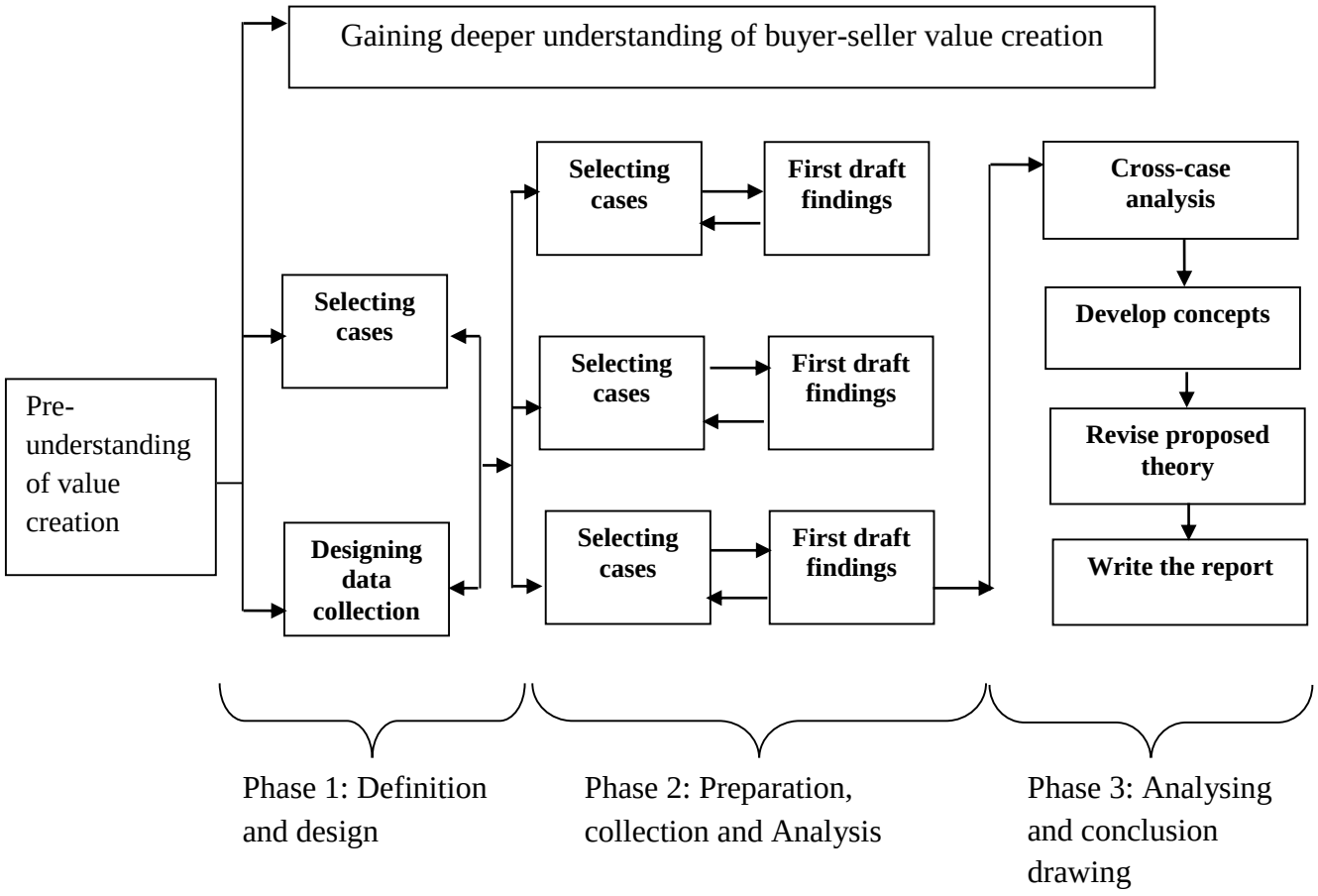


Figure 27 Case study strategy applied in this research *(source: Yin (2003).*

Based on the previous discussion, the main rationale behind the case study research design is as follows:

- Case study strategy is applicable when contemporary phenomena need to be investigated. M-applications services are still a nascent medium in the mobile services industry; therefore, in order to examine their value proposition influence on banking services suppliers, customer perceived value drivers or potential barriers requires deploying various research methods; a case study design was selected and applied. In contrast to other research designs such as quantitative research which is usually limited to measure certain predefined variables, case study enables a holistic view to understand the examined issue by using semi-structured interviews, content/document analysis and focus groups. In addition, case study aims to answer questions such as 'how' 'what' and 'why', applicable to exploratory research, while survey inquiry tends to describe incidents with the objective of predicting outcomes.

- The use of qualitative methods is more appropriate because of the complexity of the investigated phenomena (Eisenhardt, 1989; Yin, 2003). This study applied an embedded-case study design to provide richer theory generation as compared to a single case (Yin, 2003, Eisenhardt, 1989). Moreover, Eisenhardt (1989) contended that the case study design with the use of secondary data and multiple interviews in each case would help develop rich insights and provide the basis for greater transferability of the findings to other contexts. The limitation of the current study was with regard to the number of interviews with bank employees. This was mainly due to constraints of financial resources which were needed for transportation and accommodation, especially between Riyadh and Jeddah.

- The embedded-case study design enables more data to be gathered using various research methods (Stake, 1995; Eisenhardt, 1989). This enhances multiple methods, which Yin (2003) advocated in case study design. The need for multiple methids arises from the ethical need to confirm the validity of the processes. In case study research, this could be done by using multiple sources of data (Yin, 2003). In addition, selecting units of analysis from all Saudi banks allows different perspectives to emerge and enables pattern-matching to occur in the data analysis (Yin, 2003)

- The case study research strategy can accommodate heterogeneous research techniques. The objectives of the current research favoured a combination of various research techniques, in terms of data collection and analysis. For instance, the objective of identifying banking services suppliers' points of view for delivering MB applications favoured in-depth analysis. Hence, semi-structured interviews and content analysis were suggested and applied, while content analysis was preferred to examine the role of MB applications services value proposition features provided by other banking service suppliers. Focus groups with MB applications users and non-users provide a panoramic view of customers' value perception and behaviour. Consequently, adopting a case study design allowed the use of multiple sources of data collection and analysis which allowed the researcher to fulfil the research objectives and answer the research questions appropriately.

- The case study research design is appropriate for mobile services. The context of the present study was MB applications services as a channel for buyer-seller value creation in the banking sector. M-applications represent the current and future of mobile

services, their influence becomes apparent on value creation. Therefore, it was more appropriate to examine their effect on banking services as a real-life context (Yin, 2003). This was important for the current study, as the existing literature mainly pertained to customers' perspectives (Anckar, and D'Incau, 2002). Case study enabled exploration of a contemporary research phenomenon , as in MB applications, which is still nascent and there is a need to investigate the suppliers' perspective towards creating relevant and valuable content to attract, acquire and build clearly defined and understood target audience.

- Case study research design was chosen to answer marketing researchers who call for theory-building research (Summers, 2001; Pousttchi and Wiedemann, 2006; Baxter and Jack, 2008; Riquelme and Rios, 2010; Bonoma, 1985). The need for a case study strategy is supported by epistemological and methodological assumptions. Qualitative research is concerned with developing explanations of social phenomena (Pousttchi and Wiedemann, 2006). That is to say, it aims to provide understanding the social world in which we live and why things are the way they are (Summesr, 2001). Understanding buyer-seller value creation factors necessitated employing qualitative research. The supplier needs to offer value to the customer but also needs to gain benefits from the customer at the same time. For the sake of their own survival, suppliers need to understand how value can be created through relationships with customers.

5.3.1 Rationale for Choice of Saudi Banks

Case study design has become increasingly popular in business and management research (Bryman and Bell, 2007: 64). According to Eisenhardt (1989) between four and ten cases included in a multi-case study is recommended. It is difficult to generate theory with fewer than four cases and with more than ten cases the analysis may become intricate (Eisenhardt, 1989). Hedges (1985) sets an upper limit of 12 because of the high costs involved in qualitative interviews and the quality of qualitative data which can be effectively assimilated. Similarly, Miles and Huberman (1994) argue that more than 15 cases make a study 'unwieldy'. Perry (1998) suggested that the widest accepted range seems to fall between two to four as the minimum and ten to 12 or 15 as the maximum. Turning from the number of cases to the number of interviews, Perry (1998) suggested that the number of interviews varies depending on accessibility; but he asserts that more than one interview in a small business or any Asian organization is difficult.

The logic underlying the use of case study is that each case selected is able to predict either similar results (literal replication) or predicts anticipatable and disparate results (theoretical replication) (Yin, 2003). In this study, theoretical replication was favoured to enable exploration of different businesses perspectives of mobile banking suppliers. Hence, it was expected that there would be different results but for predictable reasons. Because of the exploratory nature of qualitative research design, it was not possible to determine before data collection was started, on what theoretical base to guide bank selection. Therefore, the decision was made to select banks that differ on a range of characteristics: capital market, organizational structure, geographical location and types of banking products/services (Saudi Arabia Monetary Agency, 2015). This would help to yield better results and give the best chance of identifying patterns of differences or similarities.

In qualitative inquiry, the emphasis is on data saturation where common themes start to emerge; the inquiry should stop when improvement to theory is minimal (Bryman and Bell, 2007). Guided by theoretical development, each interview in this study was collected and then analyzed tentatively to highlight major emerged themes. Then, another round of data collection was conducted. This procedure of data collection was applied to determine when theoretical saturation was reached (Figure 28). Furthermore, the meaningfulness and insights generated from qualitative inquiry have more to do with the information-richness of the cases chosen and the observational/analytical capabilities of the researcher than with sample size (Bryman and Bell, 2007; Patton, 1999).

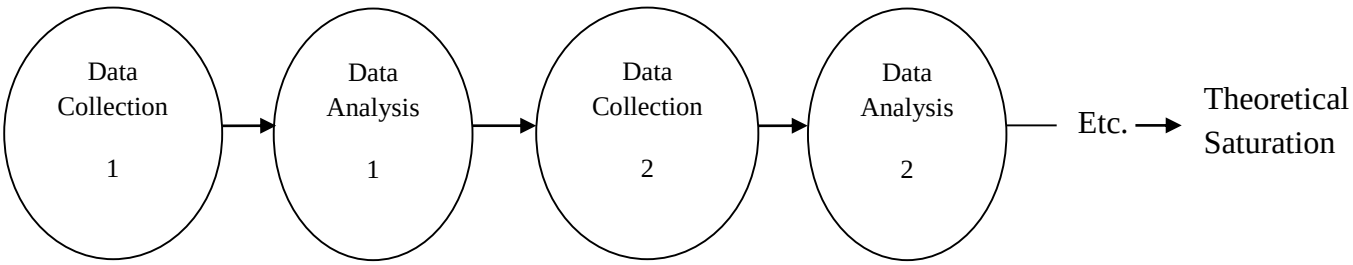


Figure 28 Cycle of alternation between data collection and data analysis *(source: Author).*

5.3.2 Within-Case and Cross-case Analysis

As mentioned by Eisenhardt (1989: 533), data in case study can be analysed in two distinctive but interrelated ways, namely, within-case and cross-case analysis (Figure 29). One key step is

within-case analysis. The aim of this phase is to organize and prepare data collected for the analysis process (Eisenhardt, 1989). During the interviews, notes were first taken and written down then a summary of each individual interview was made after listening to the recorder for the sake of keeping fresh the memory of the interview content (Eisenhardt, 1989). A full transcription of each interview (see Appendix 3) was made after the completion of the whole interview process. . In this thesis, the interviews conducted were investigated based on both approaches. A summary of these two approaches is shown below;

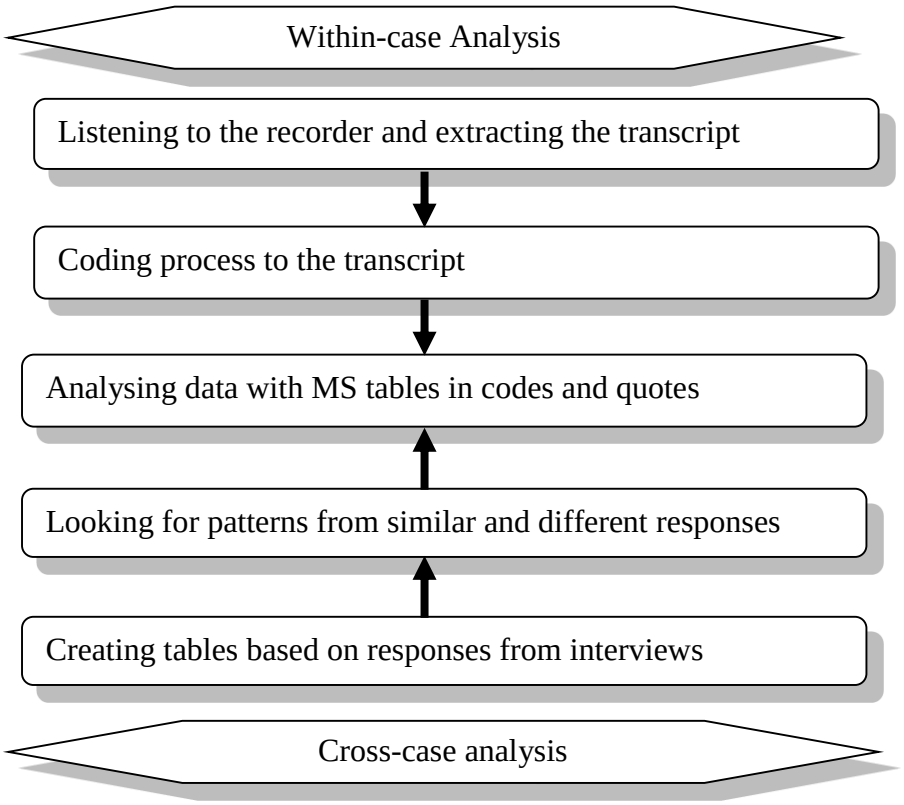


Figure 29 Typology of case study analysis (source: Eisenhardt, 1989: 533).

On the other hand, cross-case analysis aims at looking for convergences and divergences in the data, recognizing ways to account for similarities and differences of the respondents (Eisenhardt, 1989). Each interview was analysed in the same way as discussed under within-case analysis. Then the patterns that emerged were analysed based on several tables representing different themes.

5.3.3 Criticisms of Case Study

Despite the advantages of case study design, as with any research methodology, it has its drawbacks. One of the core criticisms is that data gathered may not necessarily be generalized to other populations (Stake, 1995; Gummesson, 2000; Bryman and Bell, 2007). In addition, Yin (2003) points out that case study is a less desirable form of inquiry than either experiments or surveys. Moreover, Gummessson (2000) identifies a disadvantage of case study research, that it lacks statistical reliability and validity (Table 23). The next part explains the research tactics explored to tackle these two points.

Moreover, most qualitative research is characterized as time-consuming, data can be too rich and complex to be analyzed and the researcher's bias may affect the outcomes (Stake, 1995; Gummesson, 2000; Bryman and Bell, 2007). In this study, the researcher was an external observer of the banking industry, which meant he was unobtrusive and examined findings from an outsider's perspective.

Table 23 The advantages and disadvantages of the current research methodology.

Advantages	Disadvantages
Case selection was from various geographical regions	It required a number of journeys to Saudi Arabia.
It allows different explanations through cross-case/within-case analysis to ensure externally validity	Time-consuming for organization access
It helps to answer the research questions and meet the objectives posed	Involved a large volume of data
Most of the data gathered was from bank officials and it includes documents and material on banks' online channels.	Costly, especially as the research required support from external bodies.
Enables exploration of similarities and differences among banks, which helps the replication logic	
Provides significant data and results which enrich knowledge of mobile services in	

general and the mobile banking field in particular.	

(Source: Gummessson (2000).

5.3.4 Inductive Approach

The inductive approach is appropriate to the context in which events were taking place. Therefore, the study of a small sample of cases might be more suitable than a large number, such as is used with the deductive approach (Saunders *et al*, 2007: 119). In this approach, data is gleaned then analyzed and the result of this analysis would be the formation of a theory (Saunders *et al*, 2007). The inductive approach was applied in this research. M-applications are still nascent in business. Therefore, there is a little knowledge on how organizations can deploy this kind of mobile technology in creating value for customers. In addition, the literature review highlighted the importance of investigating how customer perceived-value is formed (Grant and O'Donohoe, 2007; Gummerus and Pihlström, 2011). M-applications is a growing research area in marketing service. For organizations, they have become an important customer engagement platform due to their value proposition features which have become indispensable to consumers (Payne *et al*., 2008).

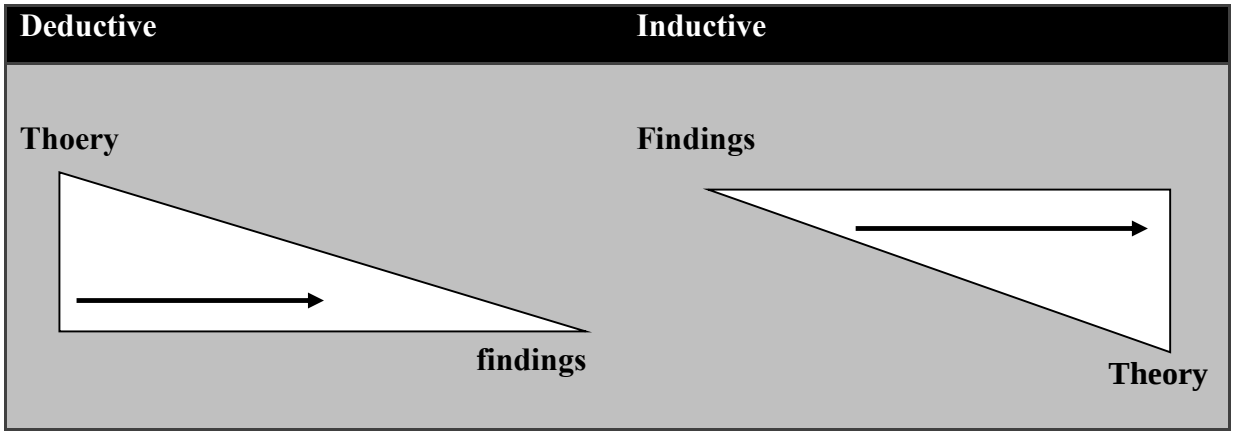


Figure 30 Deductive and inductive approaches to the relationship between theory and research *(source: Bryman, 2004:10).*

The inductive approach works in a 'bottom-up' direction which focuses on a specific research leading to problem to broader generalization and theories (Figure 30). Bryman (2004: 9) comments on using an inductive approach in a research by saying *''theory is the outcome of research''*. This explains the defining difference between the inductive approach and deductive approaches which would attempt to substantiate a theory with evidence (Table 24). In addition,

the deductive approach requires formation of pre-defined hypotheses to provide the basis for more precise estimates of the degree of relationships between measured variables (Bryman, 2004: 271). Qualitative research where assorted methods are used is needed in the area of social phenomena for exploratory purposes.

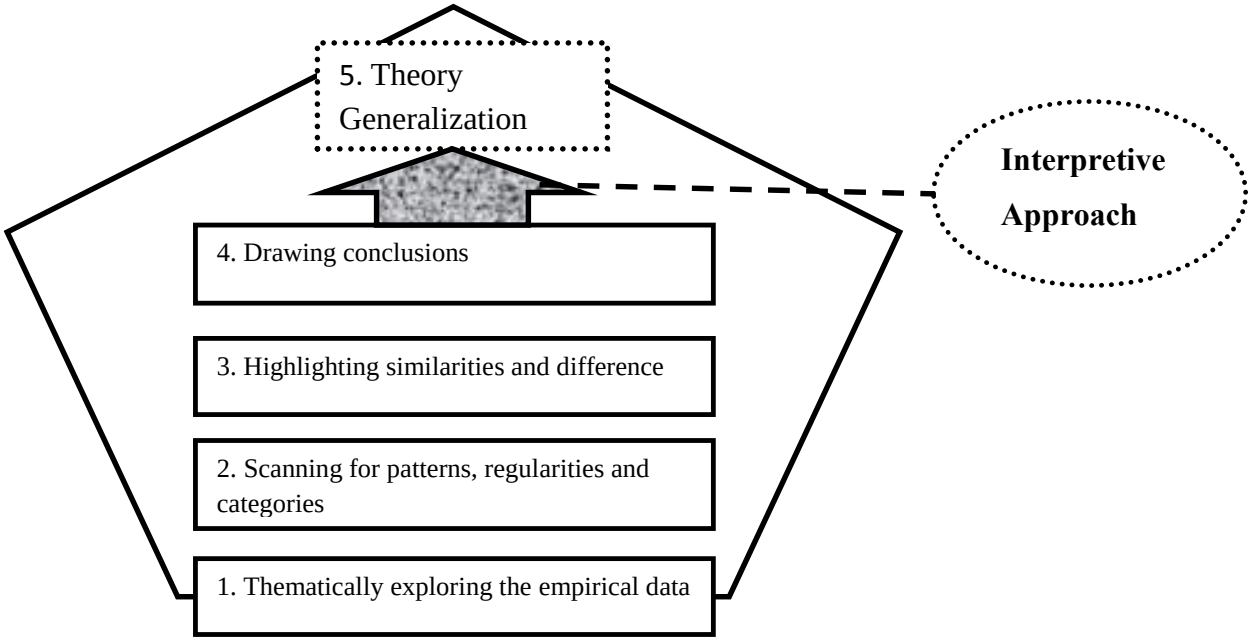
Table 24 Major differences between deductive and inductive research approaches.

Deductive methods	Inductive methods
Principles based on science	The meaning humans attach events are explored
Movement is done from theory to data	Research context is understood in a deeper manner
Quantitative type of data is mainly collected	Qualitative type of data is collected
The approach is highly structured	More flexible approach to research structure to ensure provisions for changes during the research
Researcher is independent from the research process	Researcher is perceived to be a part of the research process
Samples need to be selected of a sufficient size in order to be able to generalise research conclusions	Research findings do not have to be generalised
Causal relationships between variables need to be explained	
Measures of control are applied in order to ensure the validity of data	
Concepts are operationalised in order to ensure the clarity of definitions	

(Source: Saunders et al, 2007).

Therefore, in this study, data were collected and analysed inductively to build a theory (Figure 31). In qualitative research, meanings and themes are primary to building evidence interpretively. Thus, Gephart (1999) explains that subjective meaning is at the heart of interpretivim. To understand the ontological reality, the interpretivist has to grasp the meaning(s) of an event within its context. In case studies, inductive theory-generalization is based on data interpreted within a case. According to Glaser and Strauss (1967) the result is a theory which normally consists of related concepts.

Figure 31 Inductive approach process (Theory-building approach/bottom up reasoning) *(source: Author).*



5.3.5 Case Study Boundaries

In summary, this is an embedded-case study research in the banking sector which involves Saudi commercial banks operating in the KSA market. These selected banks have offered full mobile banking services for a long time. In addition, they provide various banking services using a mobile medium. Hence, it was important to investigate the role of mobile technology development on the buyer-seller value creation process.

5.4 Data Collection Framework

Within an interpretivist ground, a case study research design was used to collect rich data regarding value creation in MB banking services. It involved investigating suppliers' perspectives for MB service provision and delivery and performing a content analysis. Also, it examines consumers' attitudes in terms of perceived value motivators and barriers from both MB services users and non-users. Figure 32 illustrates how the data collection process was used to glean the data and information required to meet the objectives of the study.

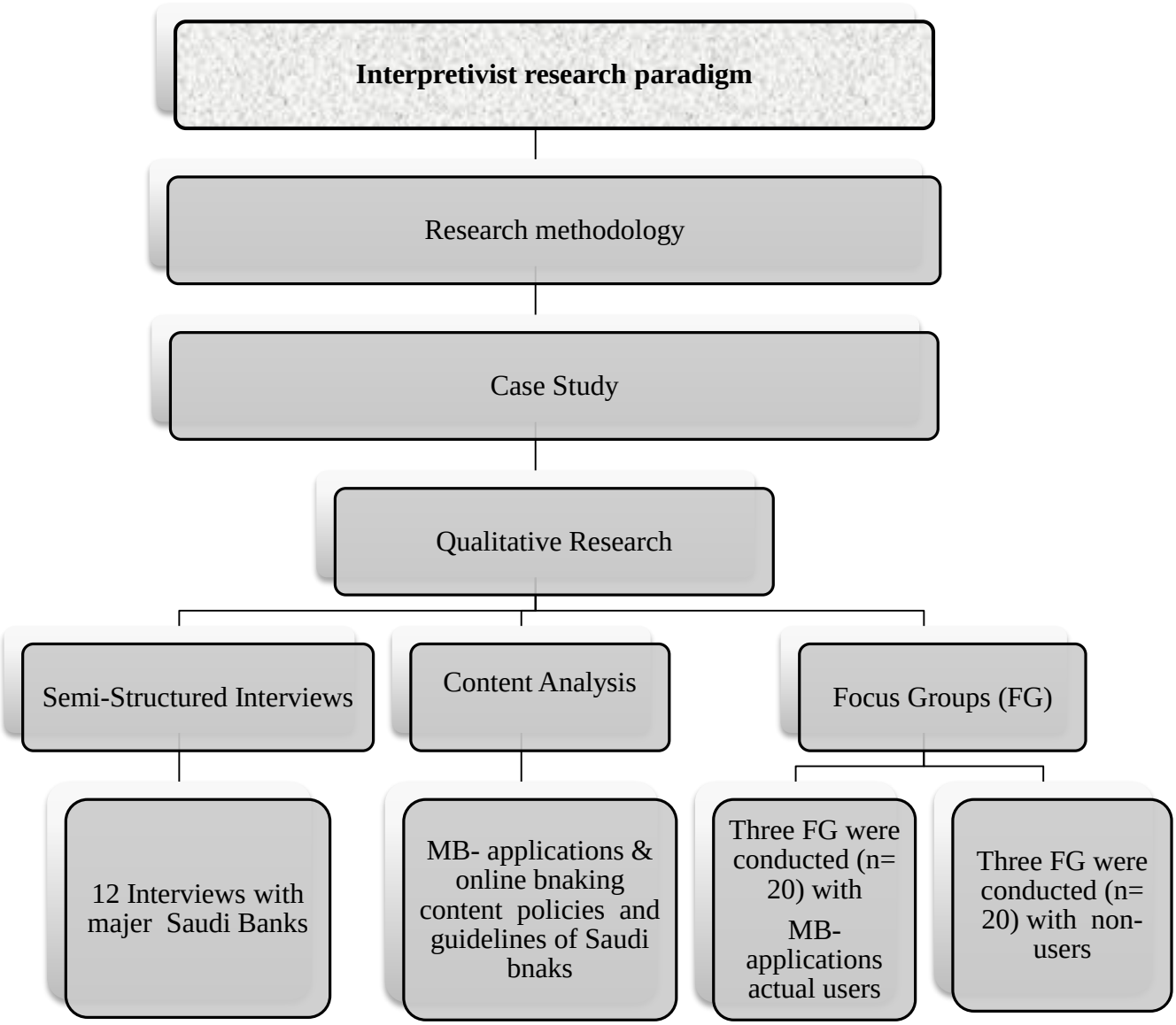


Figure 32 Data collection framework *(source: Author).*

5.5 Sampling Techniques

Sampling approaches are one of the areas of difference between qualitative and quantitative methods (Patton, 1990). Quantitative researchers mainly apply probability sampling depending on selecting a truly random and statistically representative (Bryman and Bell, 2007). On the other hand, non-probability sampling, as deployed in this study, represents a group of sampling techniques which help in selecting units from a population (Bryman and Bell, 2007). Bryman and Bell (2007) argue that the selection of sampling technique depends on various factors (e.g. cost, time, access). Non-probability sampling has different forms. For example, Patton (1990) identified 15 strategies for non-probability sampling. Purposive sampling techniques including

convenience, snowball and theoretical sampling techniques, are commonly used as a form of non-probability sampling.

Sampling is usually done because it is impossible to test every single individual in the population. McMillan and Schumacher (2001: 164) view a population as ‘‘a group of elements or cases, whether individuals, objects, or events, that conform to specific criteria and to which we intend to generalize the results of the research’’. In the current study, the relevant populations were as follows:

- **The first phase (part one)**: involved all bank employees who are responsible for mobile banking services provision (at least one mobile banking director from each bank);
- **The first phase (part two)**: this covered the content analysis which involved all banks' official Internet banking channel documents and MB applications content;
- **The second phase (parts one and two)**: involved all Saudi clients who have at least an MB application account living in Riyadh city the capital of Saudi Arabia. MB non-users were all Saudi clients living in Riyadh city who do not use MB applications services.

Riyadh is the capital city of the Kingdom of Saudi Arabia. It is the largest city and the home of more than 5.7 million. The population of Riyadh represents 61 per cent of Saudi inhabitants (High Commission for the Development of Arriyadh, 2014). It is the centre for the Saudi Government, financial district, universities, embassies and key institutions of Saudi Arabia. It is the heart of all life aspects, and encompasses different nationalities and citizens from various geographical regions who come to study, work and live in the capital. Accordingly, research samples were selected from different parts of Riyadh city. This is mainly due to time, cost and location accessibility.

5.5.1 Sample Size

In qualitative research, there is no precise way of determining sample size (Bryman and Bell, 2007; Patton, 1990; Strauss and Corbin, 1998). Bryman and Bell (2007) point out that it is fairly common practice in business and management research to use a single respondent to represent an organization. When the respondent is a senior manager they may have a tendency to represent the business perspective in a way that depicts their own duty and role more than other respondents would (Bryman and Bell, 2007)

According to Patton (1990: 184) there are no specific guidelines for sample size in qualitative studies. Although many qualitative researchers agree on data saturation as a method of calculating sample size, it has limitations (Guest *et al.,* 2006). This is due to the time, resources and funds needed for the sort of saturation required in conducting participants' interviews. However, there has been an inconclusive debate about the concept of saturation. Morse (1995) believes that researchers often claim that they achieved saturation but are not necessarily able to prove it. Similarly, Bowen (2009) suggests that saturation is claimed by qualitative research without evidence of how it was achieved. In the same vein, Dey (1999) criticizes the concept of saturation and suggested that researchers often close categories early when the data only are partially coded. Supporting this view, Strausss and Corbin (1998) point out that saturation is a matter of degree and suggested that the longer a researcher examines and analyses their data, the more potential there is for 'the new to emerge'.

Guest *et al*. (2006) suggest that data saturation is achieved with twelve participants' interviews, when additional interviews will add little to the gathered data. Creswell (1998:112) further elaborated on using a purposive sampling type with participants who are familiar with the research phenomenon, and suggested ten respondents are an ideal sample size to reach theoretical saturation. Lee *et al.* (2002 cited by Mason, 2010) proposed that studies which use more than one method require fewer participants, as do studies using multiple interviews with the same participants.

To explore the factors shaping banks' ability to create and deliver value, non-probability sampling strategies were employed (Figure 33). Purposeful sampling was applied to reach participants with special characteristics in order to generate the required data. In addition, non-probability sampling is favoured in the exploratory stages of research as it permits selecting of, perhaps one element in population, to provide rich information about the research question (Saunders *et al,* 2007: 226). Mobile banking banks' directors who could provide answers to the interview questions were selected purposefully due to limited resources and the inability to specify a sampling frame of banks' population. Further details about participants' recruitment in the qualitative part of the current study are discussed in the next sections.

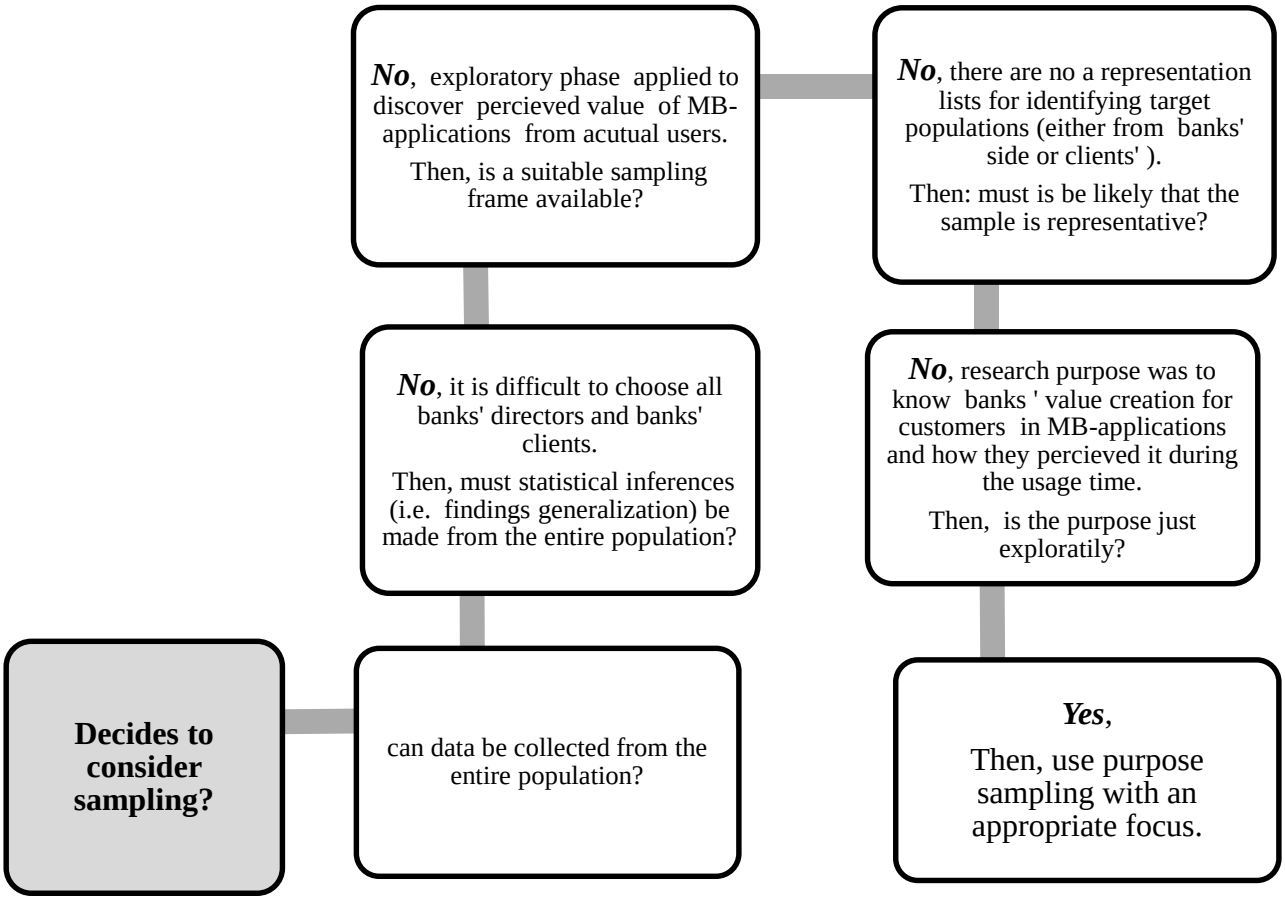


Figure 33 Sampling strategy technique applied for semi-strucutred interviews and focus groups in this study *(source: Saunders et al, 2007: 227).*

5.5.2 Bank Directors Interviews

The semi-structured interviews were conducted based on face-to-face interviews with key figures in Saudi Arabian operating banks. The interviews were conducted face-to-face in banks' headquarters in Riyadh (central region) and Jeddah (western region), mostly with information-rich directors at Saudi banks. The interviews were pertaining to directors' perspectives regarding value creation and provision in MB applications services. Some figures in leading banks such as #E Bank marketing and CSR manager, refused to be interviewed because of lack of time. As a result, they suggested others who could be interviewed because of their role. The interviews were exploratory in nature, aiming to examine the current situation (research phenomenon) of m-applications with particular interest to MB services. Hence, a

thematic analysis was applied for the qualitative interviews collected from participants; each question was analysed and thematically explained.

Qualitative research is concerned with non-statistical methods of inquiry and analysis of social phenomena. It draws on an inductive process in which themes and categories emerge through analysis of data collected by such techniques as interviews (Maxwell, 2005). There is no consensus on how many interviews are enough in conducting qualitative interviews (Baker and Edwards, 2012; Bryman and Bell, 2007; Guest *et al*., 2006). Therefore, probing themes were amended after each interview. This enabled extra notions and themes to be identified for discussion in the next interview. It is worth mentioning that the Saudi banking industry is relatively homogenous because of the governing role of SAMA (central bank) over e-banking products and services supplied by banks operating in the KSA market. Therefore, the rationale of evaluating MB-applications value propositions has emerged within this research to achieve a level of saturation which unveiled different uses of MB services and features as well as supporting common issues and themes pertaining to the banking industry internationally.

The interviews were carried out at banks' headquarters with twelve banks' officials in all Saudi banks in Saudi Arabia (Table 25). Tashakkori and Teddlie (2003: 102) describe this type of interview as ''a powerful method of data collection because it provides one-to-one interaction between the interviewer and the interviewee''. For managers, interviews are preferable to a filling in a questionnaire, especially where the interview topic is seen as relevant to their work (Saunders *et al*, 2007: 316). The decision to choose a face-to-face interview with key bank directors was made because:

1- It was not easy to have access for the whole population (bank managers and employees) in Saudi banks in time or effort; therefore, it was suggested to focus on access to MB managers who might be able to answer interview questions and explain the bank's perspective of MB applications value provision;
2- Retail banking is a very competitive environment; therefore, investigating MB managers in Saudi banks was planned to generate different perspectives regarding customer value provided in MB services.
3- It allowed an in-depth study and probing during each interview to discuss and explore particular issues or themes related to the investigated phenomenon.

Table 25 Types of Interviews: Following Perry's (1998: 797) guidance on physical and temporal context of case study.

N	*Bank Code*	*Types of Interviewees*	*Interview Place*
1	#A Bank	Head of Internet & Mobile Channel Manager	Bank Headquarters Riyadh: October/2012
2	#B Bank	Head of e-Consumers Banking Channels	Bank Headquarters Riyadh: October/2012
3	#C Bank	Manager of e-Marketing and Digital Banking Channels	Bank Headquarters Riyadh: November/2012
4	#D Bank	Marketing Senior Manager	Bank Headquarters Riyadh: November/2012
5	#E Bank	Senior Business and Marketing communication manager	Bank Headquarters Jeddah: December/2012
6	#F Bank	Customer Value &Service Strategy Officer	Bank Headquarters Riyadh: January/2013
7	#G Bank	Products Manager of Internet & Mobile Banking	Bank Headquarters Riyadh: December/2012
8	#H Bank	Banking Digital Marketing Manager	Bank Headquarters Riyadh: January/2013
9	#I Bank	Head of Marketing Banking Services for Individuals Customers	Bank Headquarters Riyadh: January/2013
10	#J Bank	Customer Relationship Manager in e-Banking Channels	Bank Headquarters Jeddah: December/2012
11	#K Bank	Head of Banking Products for Individuals Customers	Bank Headquarters Riyadh: November/2012
12	#L Bank	CEO Deputy for Marketing Strategies	Bank Headquarters Riyadh: November/2012
		TOTAL	**12**

(Source: Perry, 1998).

5.5.3 Focus Group Interviews

Businesses and organizations use focus groups as a qualitative marketing research methodology to understand how people make decisions about - and what factors influence their use of products or services (Calder, 1977). Focus group is a type of qualitative research which involves engaging a small number of individuals in an informal group discussion ''focused'' on a specific topic or set of issues (Wilkinson, 2004: 177).

Focus group has been suggested as a suitable method for explorative studies (Bryman and Bell, 2007; Malhotra and Birks, 2007). Previous research has demonstrated focus group feasibility in studying innovative mobile services (Jarvenpaa and Lang, 2005). The strength of focus group and its key benefits lie in the amount of creative discussion and other interactions that may be generated (Malhotra and Birks, 2007: 183). Bryman and Bell (2007) demonstrate that focus group members are more likely to argue to influence each other's views and bring forward issues that are important to them. Moreover, focus group research is an economical,

fast, and efficient method for obtaining data from multiple participants (Onwuegbuzie *et al*., 2009)

However, Malhotra and Birks (2007) clarify that the key drawback of focus group lies in how intimidating the group scenario may be to certain individuals. In addition, a number of individuals may be self-conscious in expressing their ideas, feeling they may be ridiculed by others, or they may be diffident and unable to express themselves freely in a group.

For better outcomes of focus group, participants should be carefully screened for successful interaction and discussions (Bryman and Bell, 2007). According to Malhotra and Birks (2007: 183) a focus group should be homogenous in terms of demographics and socio-economic characteristics. This commonality among group members avoids interactions and conflicts among group members on side issues (Malhotra and Birks, 2007). Bryman and Bell (2007) note that a relaxed and informal atmosphere helps ease in conversations and enables participants to discuss their ideas, views and opinions openly.

- **FG rationales:**

- Focus group is ideal for eliciting customers' attitudes, opinions and behaviour regarding m-applications services consumption. Consumers evaluate product or service value in-use subjectively; therefore identifying each individual perspective is important for current study.
- Unlike individual (one-to-one) interviews, focus group allows 'why' factors development and offers the opportunity to participants to probe each other's reasons for holding a certain view (Bryman and Bell, 2007: 512).
- Focus group provides the researcher with the opportunity to study the tenets in which individuals collectively make sense of a phenomenon and construct meanings around it (Bryman and Bell, 2007: 512). Indeed, the group-members discussions (especially peer-to-peer) were helpful in exploring m-applications consumption behaviour and situational context. Participants were able to bring to the fore issues regarding how mobile mediums and m-applications create value-in-use during mobile services consumption.

5.5.4 Focus group Format

Perceived value is subjective, meaning that it varied across people (Gummerus and Pihlström, 2011). In order to identify how new emergent m-applications services are viewed, with

particular interest to mobile banking create positive (sometimes negative) value-in-use for consumers, a qualitative study using six focus group interviews (three focus groups with MB applications services users and another three with non-users of MB applications) was applied. The respondents were selected based on a purposeful sampling type in the form of a snowball technique (Bryman and Bell, 2007; Onwuegbuzie *et al*, 2009). Bryman and Bell (2007: 200) propose that the researcher makes initial contact with a small group of people who are relevant to the research topic and then uses these to establish contacts with others. This enabled the researcher to choose targeted cases who would take a role in focus group interviews, then name and call other participants who have shared and experienced m-banking apps use.

The size of focus groups was between 5-7 participants in each group. Morgan (1997) suggests that the typical group size is six to ten members. Smaller groups are recommended when participants are expected to have more ideas for discussion on the research topic (Morgan, 1997: 74). In addition, small focus group formation of between three to six members was suggested to reach data or theoretical saturation with each group (Krueger, 1994; Morgan, 1997). Indeed, researchers find it more manageable to use a fairly small number of participants to guide focus group sessions.

Focus group is intended to explore collective understandings which can be achieved by selecting participants who are all members of the same group (Bryman and Bell, 2007). Therefore, a number of criteria were applied for participants' selection:

1- Young age was preferred because previous research proved that young people are early technology adopters, which mean they express positive attitudes towards new mobile services (Howcroft *et al*, 2002; Mattila, 2003; Proenca and Rodrigues, 2011; Alafeef *et al*, 2012);
2- Prior experience of mobile services usage (e.g. 3G services). To recognize the value of new mobile services, such as mobile banking, users' characteristics may affect their decision making (Suki, 2011; Alda's-Manzano *et al*., 2008). Lack of prior use of online banking was found a barrier to consumer adoption, which means those who did not use online channels expressed low value perception (relative advantage) (Chung and Paynter, 2002).
3- Knowledge of mobile applications, customer innovativeness and self-efficacy were urged to be found among m-applications focus groups participants (Lu *et al*, 2008;

Hanafizadeh *et al*, 2012). According to earlier studies, individual characteristics affect technology adoption (Mattila, 2003; Akturan & Tezcan, 2010; Juwaheer *et al*., 2012).

Due to difficulty in obtaining a list of banks' clients or a directory of all mobile services users focus group participants were recruited purposefully, using the snowball technique, drawing on the author's social network. In developing countries it is difficult to use a telephone directory as a sampling frame to select bank clients to be approached by a strange researcher, as this might not be accepted socially or ethically. Due to time and funds restrictions, six focus groups were conducted (three with MB applications service users and later on, another three with non-users of the service). All the samples were selected from the Saudi context, residents of Riyadh and from different geographical locations and social status (i.e. students, employed and self-employed).

5.6 Document Analysis

The second method that was used to collect the necessary information for this study was searching for and consulting a number of relevant documents. Bowen (2009: 27) describes document analysis as *''a systematic procedure for reviewing or evaluating documents both printed and electronic (computer-based and Internet-transmitted) material such as books, diaries, journals, agendas, brochures, press releases etc.''*. Qualitative content analysis was selected in case study research because data is triangulated by integrating different material and evidence (Kohlbacher, 2005). Internet materials and websites that have been evaluated in this study can be considered as documents. Many documents related to disciplines associated with this study were consulted, such as documents obtained through Saudi banks' official online banking, the Authority of Telecommunication in Saudi Arabia, m-applications content service and Saudi Arabian Monetary Agency (SAMA: Central Bank) archives. These were accessed through websites to provide extra information for data analysis. These documents were analysed thematically to provide more insight into the current situation.

5.7 Trustworthiness Criteria

Trustworthiness concerns the quality of an investigation and its findings which make it noteworthy to audiences (Lincoln and Guba, 1985). It stands for validity and reliability in quantitative studies. Lincoln and Guba (1985) highlight four criteria which qualitative researchers should meet during conducting the investigation. These are credibility, transferability, dependability and confirmability. Credibility refers to the truthfulness of the

collected data. In this research, this has been achieved through applying a) multiple methods; from different sources of information b) comparison, which refers to comparing perspectives, meanings and views of stakeholder involved in value creation and perception of mobile banking services.

Also, credibility is achieved through applying different research methods; semi-structured interviews, content and document analysis and focus groups which enables multiple methods data sources. This is a validity procedure where researchers search for convergence among multiple sources of information to shape themes or categories in a study (Creswell and Miller, 2000). The second criterion, transferability, refers to the generalisability of the study and whether the findings can be transferred to different contexts. According to Lincoln and Guba (1985) a way to meet this criterion is through thick description of the context of the participants. This would allow the reader to judge whether transferability was possible. In this study, efforts were made to keep detailed notes and data analysis drafts from interviews and documents.

Thirdly, dependability refers to the rigour associated with the process of inquiry. Lincoln and Guba (1985) suggested the use of an 'auditing approach' such as peer reviewing and step-by-step data analysis explanation as means of ensuring dependability (see section 6.2.). In this study, the researcher applied this approach in data analysis by checking with his supervisors; also by presenting his work at different academic conferences where he received invaluable feedback.

The fourth criterion, confirmability, refers to reducing the intervention of the researcher's values and presenting interpretations of the study fairly. To assist in ensuring confirmability, the author was not involved in the banking industry and findings were presented based on an audit approach as explained above.

5.8 Research Permission and Ethical Considerations

The researcher can confirm that he has followed the ethical procedures for research and a research ethics proforma has been completed for this piece of research. Approval was granted by an authorized a member of Hull Business School (HUBS) on 07/11/2012 for the semi-structured interviews which targeted the supply side of mobile banking services. For the focus groups, ethical approval was received on 18/06/2013 to comply with University of Hull research ethics regulations.

However, as Creswell (2009: 89) notes, ethical practices do not involve a set of static guidelines. Thus researchers should anticipate and address any ethical dilemmas that may arise during the research. Research ethics are the moral principles, norms and standards of behaviour which guide moral choices about our behaviour and our relationships with others (Homan, 1991). This means that some standards for the ethical issues need to be considered for the research stakeholders. The main stakeholders in the present research are the university, the funding body and interviews participants, with ethical issues related to each of them.

The researcher is acquainted with the university's ethical policy and submitted a research proposal to the HUBS and Research Ethics Committee (RECs) for proactive and educational objectives. Prior to the data collection stage, the researcher and supervisors carefully evaluated the ethical considerations of the study. In doing research, it is considered unethical to collect information without participants' knowledge and informed consent (Kumar, 2011). According to Easterby-Smith *et al.* (2004) informed consent implies that participants are made adequately aware of the type of information a researcher wants from them and the purposes of the participation in the research.

The researcher also obtained written permission from the Ministry of Higher Education (MHE) in Saudi Arabia to commence the data collection process, because it is the funding body and the scholarship provider of the research. Also, the researcher used an informed consent form to be handed to participants before conducting the interviews (Appendix 7). It included a brief introduction to the research and the role of the participant in the interview. It provided the e-mail address and mobile number of the researcher for identification and communication with participants. In addition, it contained clear information about the purpose of conducting the interview and an assurance that participation was completely voluntary and the interviewee had the right to withdraw freely at any time.

The confidentiality and anonymity of the participants were considered to be ethical issues in the present research. The researcher paid painstaking attention to the privacy of the data obtained from participants by keeping it fairly and securely protected. For the supply side, each bank has been coded according to participants' interests. Even though they had agreed on the consent form, some of the banks' interviewees required assurance of the anonymity of the bank. For the demand side, the anonymity of the participants was achieved by not recording personal details (e.g. name or address, mobile phone) of those who were chosen to be researched. Furthermore, as a part of participants' confidentiality, the researcher did not discussed personal

financial issues, as the participants were bank clients, to avoid the sensitivity of personal matters. Riyadh College of Technology (RCT) was selected as the interviews venue, which provided a secure and convenient environment to make participants feel relaxed and unstressed during the interviews. Furthermore, the researcher considered participants' interaction with the interview flow of questions and how their statements were interpreted.

In the specific area of Internet research, ethics is related to computer and information ethics such as data privacy and confidentiality. However, the content of websites and m-applications services is offered for the public and no special permission is necessary to access them. In this study, an observational approach was taken to analyse the web content through a web browser which was mainly intended to code the website features for academic purposes based on their presence of absence. Therefore, there was no attempt made to encroach on copyrighted materials by reusing them for commercial purposes. Hence, it was felt that the ethical issues concerning Internet research were not violated in this study.

5.9 Translation and Transcription

All interviews conducted in this research were in the Arabic language. This is because Arabic is the official and native language of Saudi Arabia. Therefore, interview content had to be translated.

The first step in doing transcript translation involves a close observation of data through repeated careful listening in data analysis (Wolcott, 1994). This makes the researcher familiar with the data and encourages him to give attention to what is actually there rather than what is expected, which can facilitate the emergence of notions and ideas during analysis (Wolcott, 1994).

With transcription, the researcher may go over the entire interview seeing what the responses of the respondents are verbatim. It is important for the researcher to have a clear knowledge of what participants saying and listen to their responses to gather accurate information. It is the responsibility of the researcher to go through transcripts to develop 'codes', words and phrases that serve as labels for data analysis depending on the methodology and research questions (Pope *et al*, 2006). Further details about data analysis are presented in section **6.2**.

5.10 Interviews (Piloting Stage)

In doing qualitative interviews, training is essential prior to conducting research interviews. Piloting interviews helps the interviewer to get into the real context of interviewing participants

and address their potential diverse and intense responses to the interview (Stake, 2005). Hence, the researcher conducted a pre-test of the interview questions on four volunteers from his social contacts (two bank staff and two PhD researchers) at Hull Business School. The primary purpose of doing 'mock interviews' was to check that the questions were understandable and reflected what they were designed for. Rapley (2004: 19) advised conducting a pre-test of interviews to practise the role-play through the interview process and develop the interviewer's skills and readiness for getting into research field.

The main feedback was pertaining to question flow and structure, which led to questions being re-ordered and re-worded. This helped to make the interview questions more concise, neutral and sensitive. It helped the interview protocol to commence with questions which participants could answer easily and then proceed to the more sensitive topics. This would enable interviewees to build up confidence and rapport during the interview, which generates richer data. Furthermore, mock interviews helped to merge some questions and reduce the length of the interviews.

Although some interviewees might speak good English language, suggestions from the pilot interviews supported carrying out the interviews in Arabic. For this task, the researcher's linguistic and translation experience helped to make the first round of written translation. After that, the author sent a copy of the questions (English-Arabic version) to two English language instructors at Riyadh College of Technology (RCT) to check the accuracy of linguistics terms (e.g. language form, language meanings, grammatical and syntactical/semantic structures and language in context). This decision provided the opportunity to translators to take account of participants' cultural values, knowledge and beliefs. Thus, interview translation will have its advantages on the research process and outcomes because:

1) Using participants' native language makes them more relaxed to express their attitudes, personal notions and opinions;
2) English technical terms were easier to discuss in Arabic and in order to express full understanding to participants in their native language;
3) Theoretical concepts would be more understandable and accessible in participants' native speakers. This enabled a more relaxed atmosphere to extract required data through interviews.

5.11 Computer Assisted Qualitative Data Analysis (CAQDAS)

Unlike quantitative data analysis, where computer software use is widely accepted and has a purpose of necessity (i.e. relationship measurement), the usefulness of CAQDAS in qualitative data analysis has less consensus (Creswell, 2009; Bryman and Bell, 2007). Some authors have recommended it to assist data analysis, particularly in ethnographic research (Bryman and Bell, 2007). Although computer software might help in the coding analysis process, however, other researchers continue to resist its use (Thompson, 2003). Wargo (2011: 46) points out: *"There are a number of software programs available designed to analyze qualitative data. These are probably useful for simple tasks like tabulating words and phrases. However, meaning units identified in the transcripts/text are often complex strings of words and sentences that convey idiographic themes. The researchers are far more competent at seeing these complex ideas and perspectives in the text than the software. They conducted the qualitative interviews and they read the literature. Therefore, their own logical rational reasoning is superior. A simple spreadsheet will easily allow to keep track of meaning units and themes."*

However, the use of software for the purpose of qualitative analysis can provide tangible benefits. Appropriate software can shorten analysis timeframes, can provide more rigorous coding and interpretation and enhanced data management (Jones, 2007). As explained in chapter seven, the data of the current study was analyzed using Word 2007 software. This is mainly becuase:

1. Unlike other analysis software, Word 2007 supports the Arabic language which helps to manage and sort data. This was important because Arabic was the participants' first language which enabled the researcher to have a close reading before conducting data analysis.
2. It helps in generating the relationship between codes and track frequencies as they appeared during the transcript. This strategy applied to count the number of times a particular code occurs in each interview. Then, codes are grouped under categories forming general themes.

5.12 Conclusion

The purpose of this chapter was to highlight how this research was conducted and why it was done in this way. The case study approach was favoured as an ideal methodology because using mobile technology in relationship marketing is a contemporary and on-going phenomenon and it should be investigated within its real-life context. Data was triangulated by applying three

methods of data collection: semi-structured interviews, content and documents analysis and customer focus groups. Semi-structured interviews were carried out with Saudi directors operating in Saudi banks. Some figures in leading positions such as marketing and CSR manager, refused to be interviewed because lack of time. As a result, they suggested others who could be interviewed because of their role. In addition, official documents and their contents, including websites, were consulted and analysed thematically. Their findings enriched the study contribution overall.

Purposeful sampling was selected to form customers' focus groups. Different consumers were gathered and interviewed to express their experiences and perspectives on m-applications use and consumption. Consumers were divided into two groups; the first was for m-banking applications users and the other was with non-users of MB applications. Overall, twenty participants were involved and the participants played an important role in achieving the aims of this research. The decision to have these two groups of participants was based on certain considerations. The first, was to monitor the behaviour of consumers who use MB applications and motivation behind changing banking services delivery channel. In banking sector, new information technology innovations represent an additional means for improving service provision and business growth. From practical point, suppliers need to explore factors which prevent the success of new banking channel. Therefore, identifying the attitudes of non-users segment was apparent to shape barriers of MB applications services adoption.

In general, this chapter points out rationale for selecting case study as the research strategy. It was aimed to undertake an in-depth investigation of m-applications services with banking sector. It was sought to adopt case study as the preferred research strategy due to cumulative reasons. The choice behind using case study is guided by the basic aim of this study to expand the existing knowledge on buyer-seller value management. As noted earlier, the data was collected by employing several data collection techniques. These methods allowed the researcher to get as close to the subject as possible which enabled an understanding of the research phenomenon. This helps to explore different perspectives regarding MB applications services offering. Case study was applied to investigate MB applications services as a contemporary phenomenon within its real-life context. The real-life context of the present study is Saudi Arabian banking sector. Therefore, the method of investigation selected for the study was qualitative and underpinned by the interpretivist philosophy to allow greater opportunity to explore the research phenomenon and its all complexities.

CHAPTER SIX
FIRST PHASE DATA ANALYSIS: SUPPLIERS' PERSPECTIVES

Table 26 Current chapter position in the research.

Chapter One	Introduction
Chapter Two	Research context: Saudi banking sector overview and MB services
Chapter Three	Role of Customer Relationship Management (CRM) in value creation and delivery
Chapter Four	An overview of customer buying behaviour in mobile services context
Chapter Five	Research methodology and data collection methods design
Chapter Six	First phase data anlysis: suppliers' persepctives
Chapter Seven	Second phase data anlysis: part one
Chapter Eight	Second phase data anlysis: part two
Chapter Nine	Discussion and interpretations of findings
Chapter Ten	Conclusion, recommendations and research contribution

6.1 Introduction

As explained in the previous chapter, data collection was conducted in two phases. The first explored banks' perspective on value creation on mobile applications, then, the second explored the customers' perspective to gain a holistic understanding of the dyadic value creation of both parties involved in mobile banking. As explained earlier, each method incorporates different sources of information which contribute to multiple qualitative methods, to increase confidence in the findings and create multiple ways of understanding the research phenomenon. Consequently, the aim of this chapter is to present the main findings concerned with MB managers regarding value creation and delivery in the Saudi environment. In doing so, this chapter serves three purposes. First, it explains the manner of data treatment during analysis and interpretation. Second, it introduces different perspectives of suppliers' role in MB-applications value. Third, it presents managers' views in a theoretical framework which emerged from the data interpretations. Figure 34 summarizes the main points discussed in this chapter.

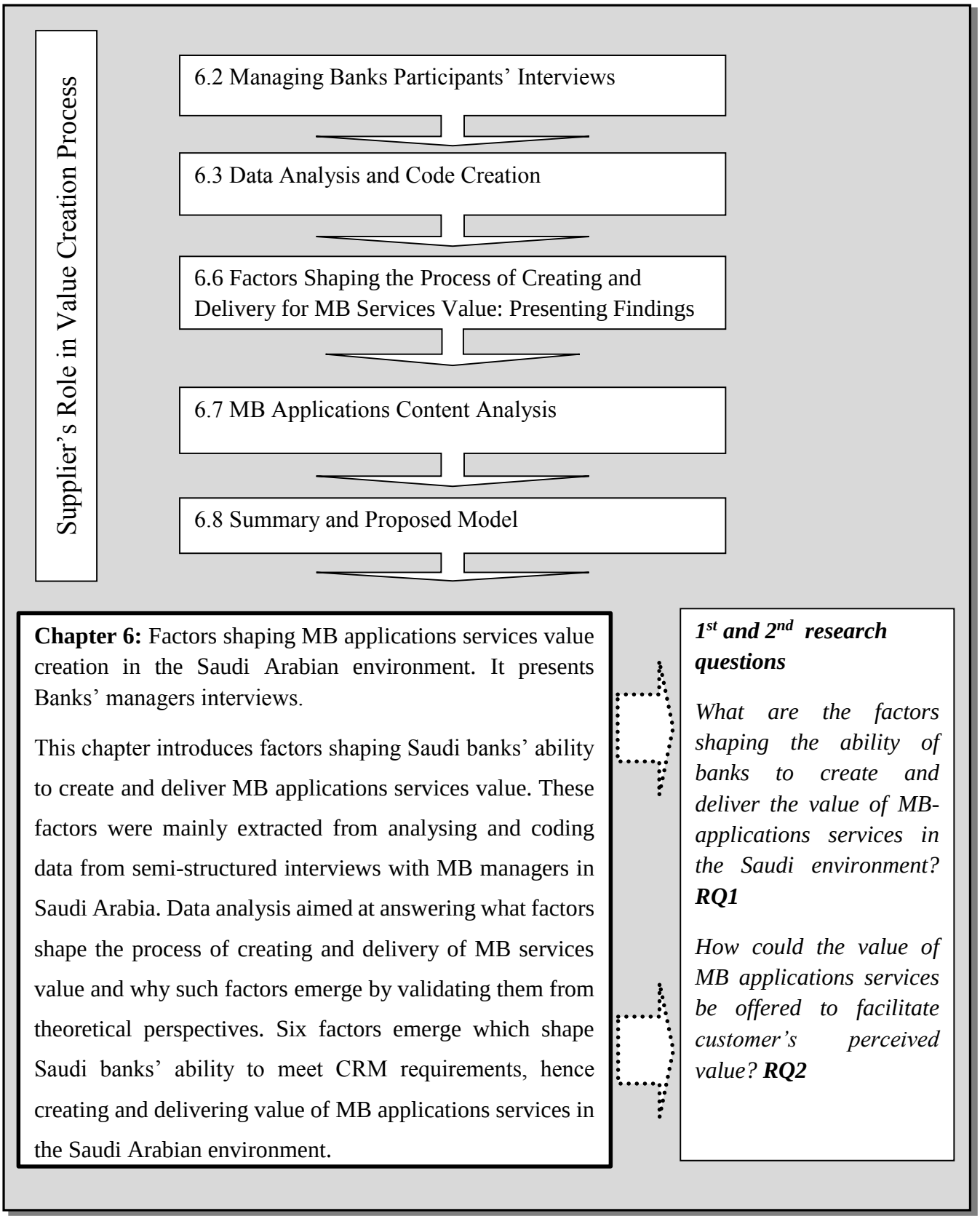


Figure 34 Structure of Chapter Six.

6.2 Data Analysis

The core stage of the research is the data analysis process. It explains how gathered evidence is interpreted and analysed. In this section, the researcher sheds light on the criteria applied to present data analysis procedures. It provides the reader with a step-by-step guide to the process of data analysis and how data were interpreted to understand suppliers' perspectives regarding MB applications services value creation and delivery.

6.2.1 Data Collection

Before getting into the research field, informants were contacted by mobile phone with a brief introduction to the research objectives. The mobile conversations were between 5-10 minutes with a bank employee who had been reached from the researcher's social network to explain the research purpose and discuss the interview questions, in order to arrange to meet the right participants at the bank. After arduous searching, a call was received from a bank employee determining a date, time and venue for the interview session. When the right participant was reached, an appointment was made inside the bank's headquarters to carry out the interview. During the contact, the perspective participants were informed in full about the research project in the consent form. This should not cause bias when the interviews were conducted later on because the letter stressed that their participation was wholly voluntary and there was no right answer to the questions.

In each interview, a brief introduction about the research was given and the consent form was handed in. The interviews were conducted by the researcher and were tape-recorded using a Sony - ICD-BX Digital Voice Recorder to ensure the quality of the voice and reliability during transcription. During the interview proceedings, interviewees asked for information privacy and they were assured that information given would not reach other sources and would be used for academic purposes only.

6.2.2 Data Management

Data management is concerned with preparing data transcripts for the analysis procedures. This step commenced with transcribing the interviews. Due to research context concerns, interviews were conducted in the Arabic language. This was mainly due to the difficulty in translating precise and technical marketing terms, jargon and concepts.

Therefore, translation and transcribing in English were conducted simultaneously for the main quotations from the interviews. This approach is recommended by a number of bilingual

qualitative researchers (Hennink *et al*., 2011). It involves a translator listening to segments of the recorded interviews, considering an appropriate translation and then writing down the translation into a transcript. According to Hennink *et al*. (2011) this type of transaction is prone to translation errors and may lead to some loss of details in the translated transcript when it is conducted by translators other than researcher himself. To avoid unexpected loss of data, the researcher performed the translation.

The researcher ensured a high quality transcription procedure by (**a**) placing the recorder in a good position during the interview; (**b**) isolating himself in a quiet place during transcription in order to pay strong attention to the interview contents (**c**) during transcription, the researcher highlighted opinions, explanations, examples given and even unrelated or side talk; (**d**) then the researcher consulted number of books on qualitative research (e.g. Bryman and Bell, 2007; Maxwell, 2005) as well as colleague researchers at Hull Business School (HUBS) regarding concepts that emerged, to seek impeccable English translations. The researcher invested much effort to transcribe interview content immediately to facilitate remembering discussions. Hence, transcripts were used later on for generating necessary data.

6.2.3 Data Reduction

After transcript translation, data were prepared for data analysis. The first step was to prepare units of analysis. This required data to be reduced because a huge volume of data emerged from the interviews. Therefore, a general reading (re-reading) of texts was applied. After several readings, the researcher became familiar with the data collected. This helped the researcher to take control of data by finding common themes among interview transcripts. Throughout reading, data were managed by applying selective notes and annotating important sections. This facilitated open-coding. Then, an initial extraction of categories and sub-categories was made to help an answering the research questions and bring out insights of participants in relation to MB applications services value creation and delivery. Emerged themes derived from coding formed the basic units for building the theoretical framework. Sub-categories are units gathered in each text to shape the main categories, which are units of meaning that provide a direct relationship with the main theme (Figure 36). Transcripts were read in a quiet place and slowly, which enabled the researcher to pay close attention to the notes written in the margin. Accordingly, the researcher highlighted main themes, categories and subcategories and inserted them into Microsoft Word software. As a result of this process, the researcher gained a broader knowledge of common issues and themes in relation to marketing concepts which were used by participants.

6.2.4 Data Display

After data reduction, the researcher started to explore data categorization and to link common themes. Each interview included main categories pertaining to the main theme discussed with participants. Each category had several sub-categories. Each category and sub-category was defined and supported by direct quotation from interview transcripts using Microsoft Word software. Figure 35 illustrates how data were linked to the main theme for the data display and presentation phase.

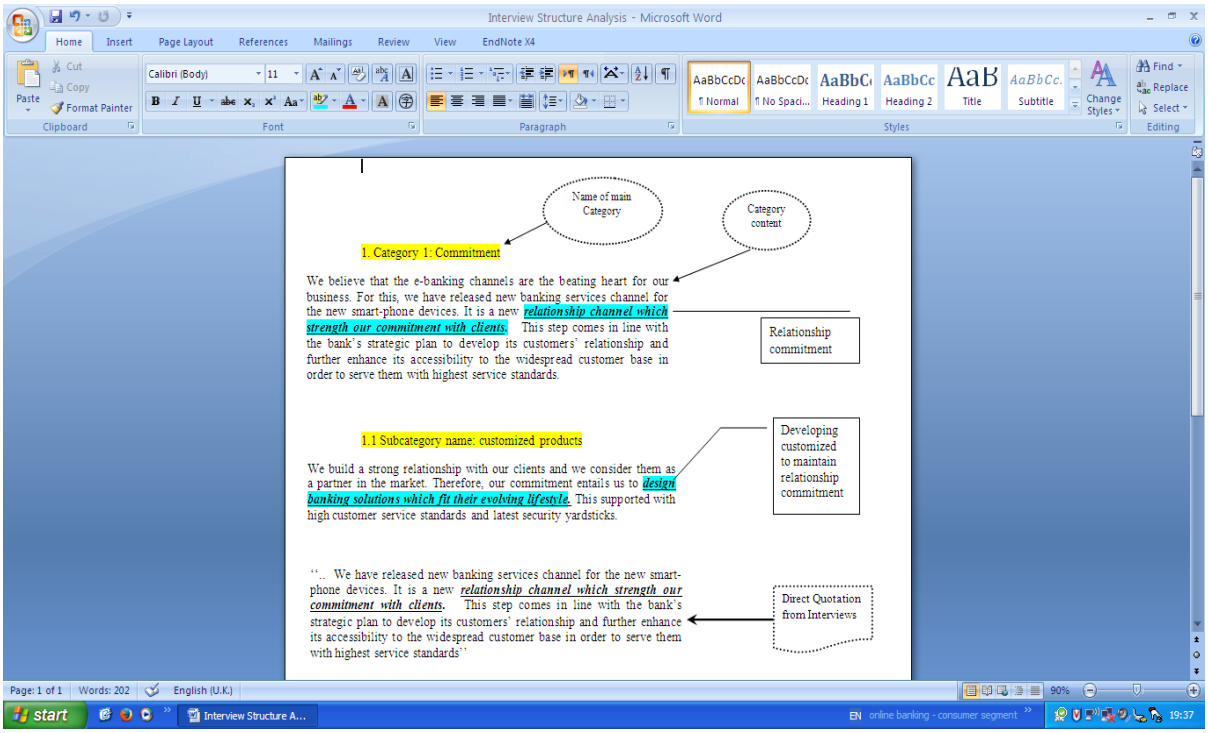


Figure 35 Data display in the data analysis chapters *(source: Author).*

To enable identification of similarities and differences between investigated banks a thematic analysis was applied. This is a means of presenting data beyond the text styles (Miles and Huberman, 1994) to identify common themes. Therefore, a thematic network was applied to find out relationships between categories and sub-categories. It helps to display data in short forms and in an effective way to show links between emergent concepts. In addition, it was applied to emphasize interconnectivity and exclude the notion of hierarchy. Boyatzis (1998) describes the purposes of thematic analysis: it is a means (**1**) of seeing, (**2**) of finding relationships, (**3**) of analyzing, (**4**) of systematically observing a case. Thematic analysis facilitates data interpretation to the reader and graphically displaying relationships between codes within the data set (Figure 36).

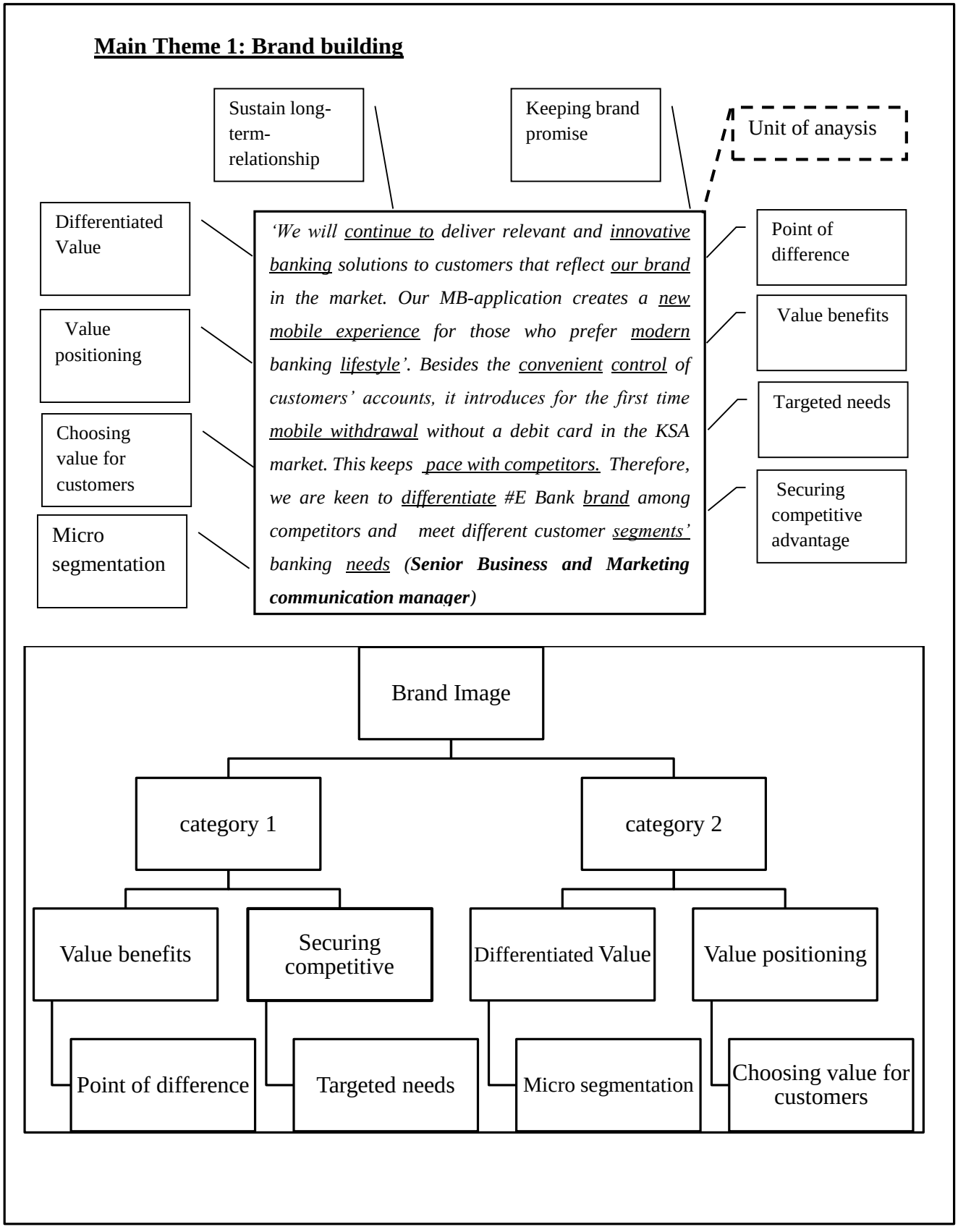


Figure 36 Practical data display sample of coding generation and category linkage *(source: Sandra, 2009, p.12).*

6.3 Code Creation

To understand banks' value creation in MB applications, each respondent's answers were grouped and analysed separately. This helped to put more focus on data gathered in order to prepare for the data reduction stage. During data display, transcripts were read carefully, word-by-word and line-by-line, to have a wider and deeper knowledge of data management.

Despite the lack of qualitative data analysis procedures and techniques in the literature, there are prominent analytical frameworks such as Miles and Huberman's (1994: 12) ''interactive model'', Dey's (1999) ''Iterative spiral'' and the 'four-stage model' of Malhotra and Birks (2003). Dey's (1999) model argues that data analysis comprises three steps, namely, describing a phenomenon, classifying it and drawing a conclusion by producing an account. In addition, Dey (1999) suggests that these analytical stages are interrelated; therefore he draws these steps as a circular process to present that they interconnect with each other.

Miles and Huberman's (1994: 12) interactive model was applied in this study. This model provides analysis in a continuous and iterative process in four stages which constantly impact upon each other and are carried out simultaneously (Figure 37). In addition, it presents a visual reference as to how data can be treated.

There are several approaches for the data coding process. According to Kawulich (2004: 99) codes can be extracted based on a number of principles. Theory-driven coding begins with the researcher's theory of what occurs and the formulation of indicators of evidence that would support the theory. Research-driven codes are those used by others and their findings provide the most direct help in developing codes from prior research. A third principle of coding is data-driven coding, which involves inductive code development based on the data collected. This was the approach followed in this study. This was supported by revisiting literature which was fruitful in theoretical model building. Corbin and Strauss (2008) comment on using literature in qualitative research:

> *''Concepts derived from literature can provide a source for making comparisons with the data as long as the comparisons are made at the property and dimensional level, and are not used as data per se. If a concept emerges from the data that seems similar or opposite to one recalled from the literature, then the researcher can examine both concepts for similarities and differences'' (Corbin and Strauss, 2008: 37).*

The semi-structured interviews were transcribed and analysed in accordance with Miles and Huberman's (1994) interactive model (Figure 37). Therefore, the data gathered went through data reduction to prepare analysable units. The codes were subsequently named and extracted initially by an open-coding technique (Strauss and Corbin, 1998). Consequently, common and similar opinions, notions and ideas were grouped together creating a set of categories with a labelled theme. In qualitative studies, the central analytical task is to understand texts' meaning (Bryman and Bell, 2007; Saunders *et al*, 2007). Thus, common elements as categories are identified and codes were assigned to be displayed graphically using tables, matrices or diagrams (Miles and Huberman, 1994; Strauss and Corbin, 1998).

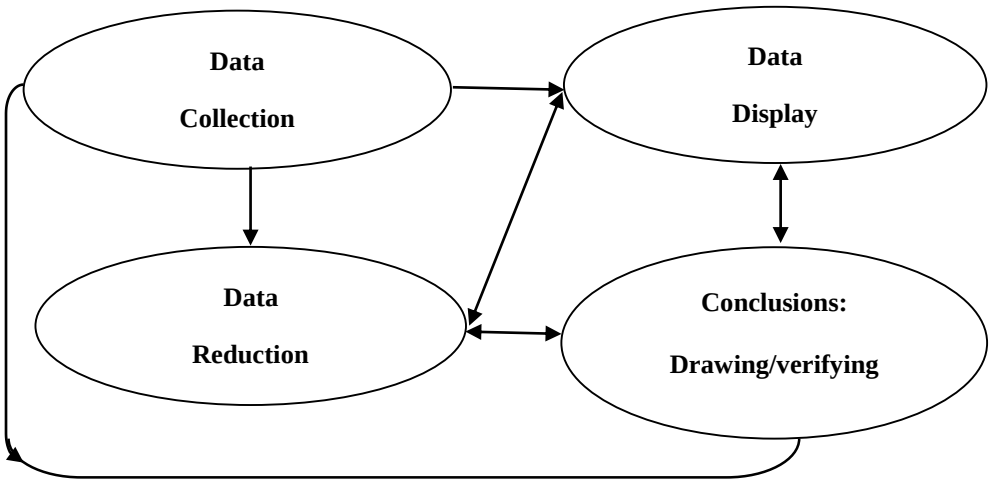


Figure 37 Components of data analysis: interactive model *(source: Miles and Huberman, 1994: 12).*

6.4 Factors (Themes) Shaping MB applications' Value Creation: Banks Managers' Perspectives

In this section, the main perspectives of Saudi banks' managers regarding banks' ability to create and deliver MB-applications value proposition are introduced.

As explained in previous sections, data were prepared and organized into units to help in extracting the required data. This process resulted in six themes, which reflect factors shaping banks' ability to manage CRM, hence creating and delivering the value of MB-applications services. The themes include brand image, MB as a business vision, customer culture-orientation, banks' internal environment, IT systems deployment and the positioning strategy.

All these factors are involved in establishing value creation for customers in the mobile domain. Saudi banks expressed different perspectives regarding MB value creation. This is mainly because of the power shift to customer-centricity. The impact is enhanced by improving customer value profitability and relationship over the time. It becomes apparent that with recent development of the m-commerce domain, banks have adjusted their value creation and delivery to meet the needs of the new banking behaviour. In order to address changing customers' needs and preferences, Saudi banks have developed a customer-centric approach to deliver new capabilities across all e-banking channels including the mobile. Thus, MB applications are seen as a differentiator element for most the participating banks. This can sustain the bank-customer relationship to fulfil the demand for more personalized service and consistency of customer experience for each segment across e-banking channels.

The findings revealed that suppliers' value crafting and facilitation involve major strategies for MB-applications services. These are presented and highlighted in figure 38. As banks' interviewees explained, value creation is evaluated in line with bank's business model. This is expressed on the basis of its ability to develop the bank's competitive advantage. Saudi banks have employed MB value creation to sustain their market position among competitors. A second step was regarding setting and defining the objectives of MB strategy. This is presented in ***theme two 6.6***. To maximize their investments, Saudi banks have designed MB-applications value propositions based on the requirements of micro customer segments. A segment-based strategy for MB was perceived as important in order to optimize customer retention and acquisition and advance service adoption. Consequently, this helps Saudi banks to tailor a needs-based approach and enables greater success in achieving return on investment. Also, MB-applications enable banks to improve customer experiences with more convenient and flexible banking management options.

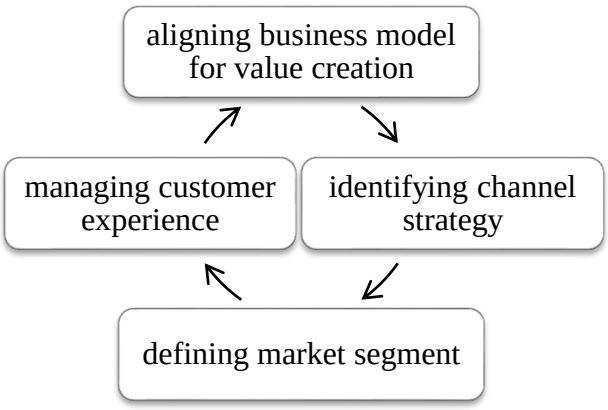


Figure 38 Identified strategies for MB-applications value creation: supplier's perspective.

Although these factors are important in shaping MB-applications value creation and delivery, their relative importance cannot be generalized. This is mainly due to the Saudi banking sector business environment and the level of participants included in the sample.

6.5 Theme One: Brand Image

It was understood from banks' interviewees that mobile applications sustain the bank's brand in designing new banking innovations. As interviewees expressed, this would strengthen relationship with their current customers. Banks have developed their service offerings to meet customer expectations and accelerate business growth.

A senior business and marketing communication manager commented on the rationale for MB applications introduction:

''We will continue to deliver relevant and innovative banking solutions to customers that reflect our brand in the market. Our MB-application creates new mobile experience for those who prefer a modern banking lifestyle'. Besides the convenient control of customers' accounts, we introduce for the first time mobile withdrawal without a debit card in the KSA market. This keeps pace with competitors. Therefore, we are keen to differentiate #E bank brand as a way to among competitors and meet different customer segments' banking needs.''(Business and Marketing Communication Manager)

Another comment was made by the Internet and mobile banking products manager regarding the provision of MB applications:

''.. At our Bank, we have achieved leadership through offering new electronic banking channels that answer customers' needs and aspirations. We have invested in m-applications to deliver a positive customer experience. Therefore, we launched two MB applications for customers' banking accounts control and stock market management.'' (Mobile Banking Product Manager)

Avoiding negative consequences of new electronic banking is vital for its success. #C bank's interviewee expressed that the bank insists on customer security and privacy of new e-banking products. Hence, the bank considers these aspects which sustain competitive advantage by providing a highly secure e-banking product. She stated:

''We have implemented a three-step security for the MB application access. It is our strategy to provide a high security level of e-banking products to provide peace of mind for our valued

customers. This strategy helps to protect the bank brand and support customers' security on MB applications.'' (e-Marketing and Digital Banking Channels Manager)

Further, she described the branding aspect of MB applications:
''It is designed to have an immediate access to banking services and direct communication with customers by having a direct mail box. Also, it has a link to our formal pages on Facebook and twitter where we provide direct customer service for complaints.'' (e-Marketing and Digital Banking Channels Manager)

The analysis of banks' interviewees revealed similarities in some aspects of MB applications branding. In terms of design, most of the interviewees insisted on ease of use. This includes simple authentication process for customer's log on. Also, most of the transactions can be performed with one touch-order. As they expressed, this would provide convenience to customers who are on the move.
''The quality of service and ease of use are what customers care for more than any other factors.'' (Mobile Banking Product Manager)

A Banking Digital Marketing manager declared that:
''Since it was lunched, customers have enjoyed the ease of use of transactions on the MB applications. It is a technological leader in meeting current customers' demand and delivering products to market quicker, reducing cost and improving customer satisfaction.'' (e-Banking and Digital Banking Channels Manger)

Another interviewee explained that (digital) customers are looking for their banks to provide value that makes banking easier and potentially entertaining. Further, the interviewee pointed out that MB applications used to reward current customers through migrating the loyalty program to the MB application. Hence, it helps users to discover deals, redeem offers and mange rewards easily from anywhere and at any time.
''Our MB applications user can redeem Aseel loyalty program offers from any local shops in Kingdom of Saudi Arabia. It provides additional services for those who prefer smart banking.'' (e-Marketing Banking Manager)

A manager of Banking Products revealed that most customers prefer easy to use electric banking services. Also, the layout of online and mobile banking features and navigation pages

is critical customers' adoption. Therefore, the bank designed the MB application features consistently with the online banking because users need quick access to MB services. He stated: *''Our MB application allows personalization of favourite transactions. This makes MB more convenient for mobile users.'' (Marketing e-Banking Services Manager)*

6.6 Theme Two: MB applications Business Vision

It was understood from banks' interviewees that MB applications were developed to meet current customers' need, attract new ones and build trust through better customer service. Further, MB reduces banks operational costs and reinforce the brand image which in turn can be used to increase the market share. There was an agreement among the interviewees on the benefits of managing customer relationship via the MB. This mainly is related to availability of powerful computing resources to gather and analyze information. For CRM purposes, MB helps the bank to provide timely customer service and better personalization opportunities. The main themes related to MB in serving business vision are discussed next.

6.6.1 Customer Retention

MB applications were perceived by most of the banks' managers as a means of customer retention by responding to customers' evolving needs. This is a result of rising use of m-applications and mobile tablets. MB applications were related to certain customer characteristics, such as young, technology savvy and those who are on the move. Online users were the main target segment as they are considered as having technology experience. One interviewee declared:

''Mobile and tablet applications use rising rapidly among consumers. Some consumers prefer using new technology for banking activities. We need to continue our efforts in developing banking products that fulfill customers' changing demand.'' (Marketing e-Banking Services Manager)

Online banking users, in particular the young, are the most appropriate segment for MB applications. This enables the bank to pay more attention to serving this segment, as a way to save bank employees to serve bank branch visitors.

''MB applications present a tremendous opportunity to grow customer profitability and add value. We invest in the MB to migrate a number of online banking customers to use MB applications, especially those who are mobile most of the time.'' (Marketing Strategy Manager)

Another interviewee agreed that MB applications are an effective way to deliver multiple services in a low cost channel. Customers may not find it easy to switch their behaviour to a new channel unless they value it. By increasing MB applications use among customers, the bank can reduce service costs. Hence, in order to drive customers' loyalty to use MB applications, the bank set up a loyalty scheme. This would maximize the quality of MB and drive more customers to the channel.

''To encourage customers to use MB applications, they should perform at least one transaction to have an incentive. This strategy has found great response among our customers and we have witnessing new customers using MB applications frequently.'' (Business and Marketing Communication Manager)

While banks are increasingly trying to meet current customers' needs, another important aspect to consider when discussing MB applications is the quality of the relationship. The better a bank is at meeting a different customer base, the more likely the customer is to extend the relationship. One way is to measure customer satisfaction on a regular basis to monitor the relationship. A manager said:

''Customers receive more than 10.000 surveys during the year to help in improving the bank's relationship. It is a tool which provides us with the information we need about customer satisfaction with the offered products and services. This confirms the direction towards a customer orientation and dedicates our efforts for serving current bank customers.'' (e-Banking Products Manager).

Similarly, a MB manager elucidated that offering superior value MB applications services is an opportunity to improve customers' satisfaction level. Additionally, a large number of customers have reduced their visits and turned to e-banking channels such as the online and mobile banking. As he mentioned, customers are using the bank's online and MB applications to perform their routine transactions, banking account inquiries and managing their IOP (stock market buying/selling orders) portfolios. For this reason, the bank has created an enjoyable customer experience that meets their needs. He declared:

''Our MB application has received an overwhelming response since we have introduced it to our customers. It has been downloaded by approximately 16,000 clients, whereas the previous MB application was updated by 13,000 customers. In addition, we are witnessing 75 downloads per customer on a daily basis. We see this as a good sign of our customers'

satisfaction with the MB application product. This would increase the pressure to make more efforts to keep in line with our customers' aspirations.'' (Mobile Banking Product Manager)

6.6.2 Customer Acquisition

In contrast to the previous perspective, other interviewees disagreed with their colleagues and suggested that MB applications is a method to reach a new market segment. MB is used as a value-added service which differentiates the bank from competitors. A MB manager stated:

''Choosing the right strategic channel option is challenging. Our MB application is packed with value-added services that appeal to high technology users. It offers an emergency cash service as an alternative tool replacing debit cards for cash accessibility. MB services have become a key differentiator and might affect customer choice.'' (e-Banking Digital Marketing Manager)

Other banks offered more MB applications options to reach different customer bases. A customer relationship manager explained that m-applications users are multiple segments depending on their mobile manufacturer. Hence, reaching different levels of customers would improve ability to meet different customers' demand. He stated:

''M-applications have different vendors and consumers have different tastes. As a result, we have launched MB applications on different mobile platforms as a leading banking services provider. Besides Android and Apple markets, #J MB application will provide a similar user experience for Microsoft devices users. Thus, we are the only bank to offer MB application for most mobile operating systems.'' (Customer Relationship Manager in e-Banking Channel)

To survive and flourish, banks need to develop innovative services that grow business profitability. This is more effective for nascent banking services suppliers. An interviewee stated:

''We believe in mobile and tablet as being a huge influencers in the future of banking services. This reflects the high penetration of smart phones and tablets among consumers. Adding more services to the MB applications such as mobile payment and mobile prepaid services is attractive for new-age mobile consumers as well as driving investment in technologies that boost productivity and help retain competitive advantage.'' (Customer Value and Service Strategy Officer)

6.6.3 MB Applications Customer Service

Mobile-based communication enables companies to personalize content and services for consumers at the point of need (Kannan *et al*, 2001). Offering SMS text alerts is no longer optional for banking services suppliers in Saudi Arabia. SAMA (central bank) regulations state that SMS text services should be applied as a right for consumers (Saudi Arabia Monetary Agency, 2015). SMS banking practices by Saudi banks in the consumer banking market are as follows:

- SMS banking alerts for customers' account control and management;
- Opening mobile channel for managing customers' relationships in different e-banking channels;
- Utilizing SMS for cross-selling;
- Leveraging SMS for fraud prevention;
- Proactive customer service;
- Customer authentication and on-line security mechanisms

However, managing customer relationships was considered one of the most important objectives of MB services by almost all the twelve mobile banking managers. The effectiveness of SMS banking was related to timing, personalization, localization and immediate service provision for customers. According to the MB managers, the importance of SMS banking was highlighted in supporting bank-customer relationships through direct two-way communication. One manager stated:

''The confirmation SMS services give more control for customers over their banking account management and foster a long-term trust in the bank. This improves customer service levels for the e-banking channels.'' (Internet and Mobile Banking Channel Manager)

Another service for SMS-based mobile banking is bill payment. A MB manager explained that the bank had generated additional revenue streams through SMS transactions from third parties such as telecommunication companies. When a client uses SMS banking for bill payment, the bank charges a fee for this service, which is recovered from the recipient of the payment. The interviewee mentioned:

''SMS banking service has allowed most customers to use to do their frequent bill payments in the mobile in easy and more convenient way. It has gained more popularity since we introduced the service in the Arabic language.'' (e-Banking Digital Marketing Manager)

SMS-based mobile banking has achieved significant efficiencies in customer service. As one interviewee explained; *''SMS mobile banking service is a key tool for customer retention and acquisition and increasing bank's market share.'' (e-Consumer Banking Channel Manager).* Consequently, SMS mobile banking provides a comprehensive interactive customer service for banks. This involves sending timely SMS to customers to enable them to keep more control over their bank accounts.

Another use of SMS banking is for customer security in the online and MB application channels. Most of the banks' managers agreed that SMS banking is important for customers' security. It was understood from the interviewees that a one-time password (OTP) is sent via SMS banking to customers as an authentication mechanism. This is a part of banks' commitment to provide a secure banking environment for customers. One MB manager stated: *''In order to provide a greater flexibility for customer use of the online and MB channels, we offer onetime password confirmation via SMS text. It is an easy to use service which has been appreciated by customers as a means for high security standard.'' (Mobile Banking Channel Manager)*

Another interviewee commented that OTP offers more effective protection to the online and MB banking transactions that contain highly sensitive data. Therefore, the way it is sent to customers should highlight its privacy and confidentiality. He stated:

''To guarantee the most appropriate security standards for our customers we employs a flash SMS which appears on the customers' mobile's screen. This way provides more protection for customer's data security and ensures the bank's position to offer a competitive solution in terms of services we offer to our customers.'' (e-Consumer Banking Channel Manager)

6.7 Theme Three: Customer-orientation Culture

According to the interviewed directors, Saudi banks have shifted to a customer-focused strategy. This is mainly represented by desinging products according to customers' needs segments and recruiting skilled employees for customer service, who deliver the corporate vision and better servcie quality. For MB applications, banks have desingned monitring systems which enable the employee to detect the user's tranactional behaviour. The bank employee can suspend any suspicious transaction, such as the transfer of a large amount of money; then s/he is empwered to call the customer immediately to confirm the user's identy and complete the tranaction. This practice is applied by banks which have developed a

‘customer-service’ communication room to interact with customers in the mobile medium. This behaviour of employess towards managing customer relationships through the e-bnaking channels is necessary to convey trust and commitment to the customers.

‘‘Monitering customer behaviour in the e-banking channel is crucial to prevent any unexpected problems such as hacking of wireless carrier infrastrucure or mobile operating system vulnerablities. Therefore, the emplyee is empowered to take immedate action to minimize the risks and increase the benefits attached to using MB applications services.’’ (Mobile Banking Manager)

In addition, it was understood from interviewees that recruiting skilled staff to deal with customers is a part of shaping a customer-focued strategy. Those employees were hired with relevant customer service experience –especially from a banking background-, computer skills and ability to speak foreign languages. Also, Saudi banks provide specific training courses based on each department’s needs. As a result, the customer interactions service has been strengthened. Employees have greater ability to respond and monitor customers’ quesries through wider knowledge, greater authority and a supportive information sytem.

‘‘The employees are the means to deliver the satisfaction and business values we seek with our cleints. At the #B bank, we consider some personal aspects for those members of staff selected to provide the required customer service such as foreing language spoken and computer skills when selecting candidates in this department.’’ (e-Consumer Banking Channel Manager).

Another manager commented:

‘‘Improving corporate profitability requires more closer focus on cusomer demands. M-applications have fulfilled vaiour needs so their expectations turn to the banking serivce supplier. We work to fulfil each segment’s needs to build on customer satisfaction.’’ (e-Banking Digital Marketing Manager)

Another manager pointed out that meeting the needs of different partners’ segments is part of the bank’s customer culture. This focus constitutes the heart of the bank’s vision, which is based on the highest ethical standards to meet obligations to customers.

‘‘MB application solutions is one of our banking products that aims to fullfil customer needs based on the basis of Sharia Islamic Financial principles to meet the aspirations of all clients. It means providing excellence in customer service by achieving the highest level of customer

satisfaction through understanding their needs and supplying them with the best possible banking solutions.'' (Mobile Banking Manager)

The interviewee with a representative from another bank clearly revealed that managing customer relations provides a way to differeniate the bank from other competitors. He explained:

''Consumers' tastes and preferences have evolved over time realising the shift in consumers' demands has been pivotal to the bank. Therefore, out banking products became tailor-made solutions that enhance our customer value scheme.'' (Marketing e-Banking Services Manager)

Another interviewee explained that the bank's ongoing commitment towards its clients is to develop products that meet their needs. This aims to sustain the bank's promises throughout the relationship it has with its customers.

''The MB application design reflects the way we want to put the customer at the centre of our business. It has a direct communication with customers via social media in Facebook and Twiiter. This demostrates our commitment to be a more enagaing and transparent banking services supplier by listening and responding to customers in the social media space to become a better bank.'' (e-Marketing and Digital Banking Channels Manager)

6.8 Theme Four: Bank Internal Environment

The bank environment and human resources were found to be another factor shaping ability to create and deliver value. The investigated banks offered human resources' investment intended to increase the level of customer-centricity. Employee empowerment is likely to be a common strategy in delivering customer value profitability in Saudi banks. At #G bank, employees are empowered to take immediate decisions to deliver higher quality service.

''Each department has its group teams which work to identify, monitor and take decision regarding customers' service and complaint issues... Moreover, customer care employees are responsible to set specific customer satisfaction target on a monthly basis.'' (Mobile Banking Manager)

The interviewee further emphasized at role of the internal management of the bank in promoting the culture of flexibility and employees' empowerment to take decisions without always referring back to the top management regarding customer service, in order to deliver a more personalized service.

''The bank should exceed in service quality to achieve the client satisfaction .. this means that bank should try to make all of its customers feel exceptional. However, some customers are special and account for a large percentage of the bank's profits. Paying meticulous attention to these customers' satisfaction is important for the bank's long term profit.'' (Mobile Banking Manager)

Another manager stated:
''The employees are involved in training courses on an ongoing basis. The bank is keen on staff development and preparations to achieve a high level of employees' development. The management set up a special program for English Language in collaboration with the Banking Institute.'' (Deputy CEO for Marketing Strategies).

Another tactic explored was employee retention and development. Understanding employees' organizational needs is important to increase business productivity. In addition, setting specific targets for customer service achievement and rewarding banks' employees are elements of a customer-focused culture. Hence, bank internal environment in recruiting and retaining skilled employees can provide a better quality of customer service, as well as achieve business vision objectives.

''To deliver and achieve customer satisfaction, the bank has put more efforts into employees' recruitment and incentives because we believe that well-trained and service-quality focused staff improve productivity, which leads to customer satisfaction… As a process of rewarding our staff, at the end of each month, all service desk members receive bonuses as incentives. We encourage both individual employees and teams based on the appraisal benefits achieved. Therefore, we have received world-level awards for the best bank environment.'' **(***Marketing e-Banking Services Manager***)**

6.9 Theme Five: Information Technology (IT) Deployment

IT applications assist banks to better understand how value should be created and developed. This ensures a superior customer experience within the mobile channel in which the bank interacts with customers. It was understood from the interviewees that MB applications enable the bank to collect information which is used to develop a better understanding of customers' behaviour. The services offered in MB applications are provided to customers to enable access to accounts, transfer of funds, summary sheets and other banking services.

Moreover, Saudi banks support customer expectations in the m-applications services. This is possible through monitoring the relationship with them. Banks' interviewees believed that creating value for customers entails selection of products and services based on business factors such as IT applications. MB is regarded as an additional medium. It is perceived by banks as a technological system that can assist them to track customers' interactions and allow bank employees to retrieve quickly all information about the customers.

As explained by bank interviewees, developing customer-oriented information management requires talented employees and technical software applications. Saudi banks have improved their customer relationships by analysing and managing customers' data generated from their e-banking channels touch points. Different views emerged on deploying IT in the MB applications value creation process.

''Focus on the customer is the head part of the new strategy of the bank, and most importantly for us, we have put this goal in mind so that we can gain the satisfaction of our customers permanently through every banking channel. Therefore, we have introduced lately Flexx-eChannel which is an advanced system that enables bank's clients to do their banking services quickly and easily through all points of contact with the bank, including mobile banking service. This new provision of banking services will sustains our bank image and provide more smart solutions for customers.'' (Marketing Banking Manager)

MB interactions strengthen banks' relationship with their customers. Further, they provide a consistent and more personalized experience. A manager described the process of service automation that allows the transformation of the collected customer information into bank resources. This maximizes customers' satisfaction and the bank's efficiency.

''Our clients receive automatic SMS alerts when their bank accounts are moved. This system saves bank staff efforts and strengthens commitment with our customers by putting them in control of their banking transactions.'' (Mobile Banking Manager)

Another e-banking manager explained that the need for the MB medium is mature in the banking business. It is connected to supporting other channels' activities such as online banking and ATMs. Therefore, it is fundamental for the bank's long-term success.

''The mobile banking channel is fast becoming a spectacular gateway for information, sales and service. It is the most versatile medium for customer interactions and relationship management.'' (e-Consumer Banking Channels Manager)

Another manager discussed that customers are using a variety of modes to satisfy their banking needs. #A Bank can enhance customer retention and acquisition by delivering personalized products. This is achieved by learning about customers' attitudes and anticipating their behaviour across all channels. He stated:

*''We are increasingly seeking to develop and roll out our capabilities to address specific partners' needs and business opportunities to add value in our banking solutions. Since we have released MB application services, we have witnessed eminent demand from our partners to manage their banking services using smart phone technology. The mobile medium enables immediate tracking and analyzing of users' touch-point behaviour, which assists us to identify the needs of this particular segment.'' (Mobile Banking Manager**).***

Predicting and delivering the appropriate banking products to potential segments might accelerate offer acceptance. By understanding customers' spending patterns, the bank can offer a bespoke banking product. Further, an interviewee explained that '*'by accurately understanding products that appeal to micro segments, the bank can build another step towards customer satisfaction and loyalty.''* He further elaborated: *''Designing new e-banking innovation comes after detailed and in-depth monitoring and analyzing of customer segment needs through our IT group teams' members. Those who favour m-applications services are a growing segment. We have designed the MB application in a way that meets our customers' interests and preferences. They can manage their bank accounts, favourite their frequent bill payments and customize debit or credit cards accounts'' (Business and Marketing Communication Manager)*

Another manager explained that IT assists the banks' efforts in customer-centricity. By doing so, the bank focuses on customers' needs and designs all products and services from customers' perspective and according to their preferences. Hence, value is derived from informed and right customer experience.

''With the change of consumers' behaviour we direct most of our IT investment towards meeting new smart-phone applications. We launched our MB where consumers can get a more customized experience on the mobile. Users can receive the latest loyalty offers on debit cards. To provide more attractive experience, users have bill payment reminder alerts. We seek to provide more convenient and organized banking for mobile users.'' (e-Marketing and Digital Banking Channels Manager)

Another e-banking marketing explained that MB applications enhance the customer experience of online banking users.

''The more the bank interacts with customers, the more information about customers' habits can be collected to refine profiles. Our Online banking users can enjoy most of the services and banking features that they usually perform online, such as IPO, funds transfer and SADAD payments. It is much more cost-effective to serve customers on the online and mobile banking but still we have a sizeable proportion of customers who need to fulfil their needs at the bank branches.'' (Marketing e-Banking Services Manager)

6.10 Theme Six: Positioning Strategy

A number of the managers interviewed asserted that banks' ability to create and deliver MB applications value depends on the bank's positioning strategy. Establishing a clear and differentiated position is the first step in developing an effective marketing strategy.

Comparing between managers' perspectives on MB applications value provision revealed two positioning strategies; target segment positioning and positioning by use occasion. It was understood from the interviewees that the target segment of MB is those who are technology-savvy and early adopters. They represent a niche segment of online banking customers.

Another interviewee stated:

''We are one of the oldest providers of e-banking products and services. Our bank was the first bank in KSA to introduce online banking services to customers. Since then we have become the premier personal banking supplier in the KSA market. Our MB application is for clients who seek smart and innovative ways to do modern banking services. Keeping security in focus, clients have instant account management on their mobile. It is hugely innovative, which proudly reaffirms our brand place as an innovator in e-banking technology.'' (e-Consumer Banking Channels Manager)

Furthermore, the interviewee discussed the bank's continuous efforts in providing customer experience for mobile users. He stated: *''We have noted great attraction to m-applications among bank's clients. Our Tadawul-based is another promise that we deliver to provide comprehensive trading for the Saudi Stock Market.''* (*e-Consumer Banking Channels Manager*) .

Another manager explained:

*''It is a service which is mainly for online banking users and those who like to access their banking on the move. We have witnessed that a significant property of our online users have adopted the MB applications services. The most common features consumed are to check balances or recent transactions.'' (Mobile Banking Manager**).***

The #L the bank's interviewee asserted that the mobile continues to provide a faster and more convenient way for consumers to interact with the bank. Further, he declared: '*'MB is basically for current customers who favour managing their banking on the move and would prefer not to spend time queuing for the telephone banking. It is also a service for customers who have a busy lifestyle and enormous responsibilities, as it is easy to manage everyday banking transactions on the mobile.'' (Marketing Strategy Manager**)***

Investing heavily in MB technology is intended to fulfil the need of those segments of clients who are more tech-savvy. Further, a bank manager revealed that the bank needed to keep its high-value clients because the future lies with smart-phone applications. Hence, it would be better to put forward steps in mobile technology investment for the bank's and clients' benefits. He stated: *''Given their younger age and familiarity with modern technology, MB users value the speed and convenience of the mobile medium.'' (Marketing e-Banking Services Manager)*

Another manager highlighted some concerns that MB applications users may face:

''Some clients are obsessed with e-banking channels' security and in the mobile domain these fears are higher. We implement a number of authentication procedures in our Mobile Banking product to guarantee our clients' peace of mind while using the service.'' (e-Marketing and Digital Banking Channels Manager)

However, the other positioning of MB applications identified from banks' interviewees is the use situation. MB applications are services designed to differentiate the bank from the competition. The features and services offered describe customers' needs of MB in the use situation. A manager declared that:

''Our MB application has advanced banking features such as automatic voice guidance to the nearest bank branch or ATM machine. The bank is keen to deliver a customer experience that exceeds our partners' expectations.'' (Mobile Banking Manager).

Another bank's interviewee mentioned that:

''By launching '#J Bank Smart' MB application, we emphasise our position as an e-banking services pioneer. We are the first bank to introduce MB applications for different operating systems. This comes as a result of our commitment to provide new heights and enhance customer experience using the latest mobile technologies.'' (Customer Relationship Manager in e-Banking Channels).

Another interviewee explained that the mobile phone has become indispensable in consumers' everyday life. As was understood from the interviewee, MB application provides urgent services such as emergency cash in situations where customers need to send money instantly or have forgotten their wallet. He stated: ''*We designed our MB applications services to address real needs of the customers. Customers may be in situations where they left their wallet behind. Therefore the MB can provide an alternative payment method to enable access to the cash in secure and effortless way.'' (Business and Marketing Communication Manager).*

However, it was obvious that certain issues were more common in some banks than others, so that the need for MB-applications content analysis became apparent.

6.11 MB Applications' Content Analysis

The value proposition is the key facilitator for customer value creation. The bank's role here is to propose value which allows customers to co-construct a personalized and subjective service consumption experience. Therefore, m-applications have become the locus of bank-customer interaction space of potential co-creation value experiences. M-applications are a value-creating mechanism as banks shift the focus from the traditional exchange of products towards the creation of value for customers. Banks' provision of m-applications acts as an additional resource to support the customer's value creation process.

The aim of this section is to provide an assessment of Saudi banks' value proposition from a customers' perspective. Understanding the actual value customers get is a means towards understanding the customer's role in value creation, since, value will not exist until customers make use of the product. Value in-use is primary to S-d logic because value is created and perceived by the customer. Grönroos and Voima (2011) point out that value creation entails a process that increases the customer's well-being and becomes better off in some respect Vargo and Lusch (2008) argued that value is always uniquely and phenomenologically determined by

the beneficiary. This denotes that value is experiential and is derived from consumption experience (Holbrook, 1999).

The interviewees with MB managers revealed different benefits conferred by MB applications. The appeal is to provide customers with more convenience, time saving, ease of use, speed and control of account management. Banks have designed MB applications that meet customers' everyday activity via the mobile.

A mobile user has to be seen from the context of using the MB application. Hence, needs and expectations can be conveniently categorised under three different categories, namely, informative functions, account control functions and interactive functions (Table 27). These represent real-life use situations in which the use of MB applications provide an additional value in-use. For each category, uses of MB applications identify the most concrete need that the user has in this particular situation. The category divisions were based on the cumulative aggregation of the functions enabled by the reviewed banks.

- ***Informative functions***

Informative functions provide relevant and highly targeted services. Typical activities include balance check, balance history, previous transactions and account movement reminders. The main rationale seems to be that customers' accounts are more active and users feel the need to reconcile more frequently. Without exception, all banks offer informative functions. The primary advantage for banks is to minimize the workload on branch staff or call centres and it relieves congestion on the online channel. For customers in mobile situations, it provides a quick and efficient service anywhere, enabling them to verify their account balance before making a spontaneous purchase.

- ***Account control functions***

Account control functions are designed to provide customers with a wide range of services for account accessibility and management at anytime and anywhere through the mobile. Whether it is to transfer funds, make a payment or credit card bill payments, MB users have a plethora of services at their discretion. All reviewed banks provide the opportunity for bill payments. Four banks enabled customers to use MB for adding new bill payment, while others required this function to be added on another e-banking channel (e.g. ATM). With the exception of three, all banks provided SADAD payments (national electronic bill payments). This is important for many reasons. Banks have designed bill payments to be quick and straightforward. Also, they

offer this service free of charge and others have set incentives for using online/mobile mediums for bill payments. Customers can either choose to enter payments details manually each time or save beneficiary detail as a favourite transaction. This generates business value by additional revenues through third party fees, decreasing costs and improving market share. For customers in the mobile situation, it offers instant payment service and reduces waiting time which enables convenience at anytime and anyplace. Besides saving time, customers perform transactions that would otherwise have been undertaken by a bank employee. Hence, cost reduction and increased customer satisfaction make the logic of MB compelling.

- ***Interactive functions***

The interactivity of MB applications provides customised preferences for customers. Banks encourage customers to react or respond to timely or instant offers or information. Internet communication provides a better way to tailor MB services to users' needs. In addition, MB applications allow banks to deliver promotions and offer deals based on customers' current location. Four banks have leveraged this feature. Customers can view deals nearby and permit redemption, when they will be given a reference code for reward redemption. Other banks have offered more individualized MB services such as loan calculator, currency exchange rate and access to multiple value-added services. Customers can calculate monthly payments, obtain banking loans and use financial planning tools.

The interactivity of MB is represented by two-way communication. Four banks offered communication activities in social media communities. This involves mainly customer feedback/service, product promotions and advertisement. Banks' presence in social media strengthens customer centricity as it enables a sustainable communication between bank and customer. In addition, it is a suitable place for customers to send complaints and feedback, which help to monitor levels of satisfaction. Banks benefit from social media data to provide make more personal campaign and activities according to customers' lifestyle, preferences and location.

Table 27 Saudi banks current M-banking services classification.

	MB Applications Features	Al Rajhi Bank	Al Ahli Bank	Al Bilad Bank	Samba Bank	Al Inma Bank	Fransi Bank	Riyad Bank	SAIB	ANB	SAAB	Al Jazira Bank	SHB
Informative function	Check account balance	+	+	+	+	+	+	+	+	+	+	+	+
	Balance history	+	+	+	+	+	+	+	+	+	+	+	+
	Statements/accounts view	+	+	+	+	+	+	+	+	+	+	+	+
	Details of loans	-	-	+	-	-	-	-	-	-	-	-	+
	Relationship summary	-	-	-	+	-	-	-	-	-	-	-	-
	ATM/branch locator	+	+	+	+	+	+	+	+	+	+	+	+
	View a summary of all banking products	-	-	-	-	-	-	-	-	+	-	-	+
	View special offers and promotions	-	-	-	+	-	-	-	+	-	+	-	-
	Instant SMS on account movement	+	+	+	+	+	+	+	+	+	+	+	+
	SMS notification 24 hours before executing standing orders	+	-	-	-	-	-	-	-	-	-	-	-
	View graphic representation of accounts spending	+	+	-	+	-	-	-	-	-	-	+	+
	Debit/credit cards status	-	-	-	-	-	-	-	-	-	-	-	-
	View latest news and products promotions	+	-	-	+	-	-	-	-	-	-	-	-
Account control functions	Accounts amendments	+	-	-	+	-	-	+	-	+	+	-	-
	Add/delete beneficiary	-	+	-	-	+	-	+	-	+	-	-	-
	Local/international funds transfer	+	+	+	+	+	+	+	+	+	+	+	+
	Bill utility payments	+	+	+	+	+	+	+	+	+	+	+	+
	Favourite transactions	-	+	-	+	-	+	-	-	-	-	-	-
	Mobile top up service	+	+	-	-	-	-	-	-	-	-	-	-
	Initial public offering (IPO) service	-	+	-	+	-	+	-	-	-	-	-	+
	Ministry of Interior fees payment	-	+	+	-	-	+	-	-	-	+	+	+
	Pay and add new bills	-	+	+	-	-	-	-	-	+	-	-	+
	Pay credit card bills	+	+	-	+	-	+	+	-	-	+	+	+

	Traffic fines payment and inquiries	+	-	-	-	+	-	+	-	-	-	+	-
	Customer preferences (e.g. bills due status)	-	+	-	-	+	-	-	-	-	-	-	-
	SADAD bill payments*	+	+	+	+	+	+	-	-	-	+	+	-
	Open new account	-	-	-	-	+	-	-	-	-	-	-	-
Interactive functions	Currency converter	+	+	-	-	-	-	-	-	-	-	-	-
	Exchange rates enquiry	-	-	-	-	-	-	-	-	-	+	-	+
	'One-click' request	+	+	+	+	-	-	+	+	+	+	+	+
	Finance calculator	+	-	-	-	-	-	-	-	-	-	-	-
	Location-based offers notifications (e.g. restaurant discounts)	-	-	+	-	+	-	-	+	-	+	-	-
	Profit rate enquiry	-	-	-	-	-	-	-	-	-	+	-	-
	Mobile cash withdrawal without debit card	-	+	-	-	+	-	-	+	-	-	-	-
	Loyalty-based promotion redemption	-	-	-	+	-	-	-	+	-	+	+	-
	Access to savings program	-	-	-	-	-	-	+	-	-	-	-	-
	Two-way e-mail messaging	-	-	+	-	-	+	-	+	+	+	+	-
	Online community communication via social media (e.g. Twitter/Facebook)	-	-	-	-	-	-	+	+	+	+	-	-
	MB status update of nearest ATM cash deposit	+	-	-	-	-	-	-	-	-	-	-	-
	Self-service help	+	+	+	+	+	-	-	-	-	+	-	-
	Card/debit deactivation	-	-	-	-	+	-	+	-	-	-	-	-
	Don't Disturb Service to control the preferable time to receive the notifications from the bank	-	+	-	-	-	-	-	-	-	-	-	-
	Promotional alerts	-	-	-	-	+	-	-	+	-	-	-	-
	International roaming and personal reminders services	+	-	-	-	-	-	-	-	-	-	-	-
	Convenient navigation	+	-	-	+	-	-	+	-	-	-	-	-
	Credit cards sales promotions alerts	-	-	-	-	-	-	-	-	-	+	-	-
	Frequent asked questions (FAQs)	-	-	-	-	-	-	-	-	-	+	-	-

(Source: Author

6.12 Conclusion and Framewok Development

This chapter began by explaining the data analysis techniques that were used for the interpretive case study. Based on the analysis, it presented factors shaping the ability of Saudi banks to create and deliver the value of m-applications services, in the Saudi environment. These factors were derived from the process of coding data emerging from semi-structured interviews with participants at all Saudi banks. Figure 39 presents these factors which express suppliers' role in the value creation process.

The findings of this chapter represent the first stage of data analysis. The findings obtained from the semi-structured interviews from each Saudi bank have resulted in different six themes which include brand building, MB as a business vision, customer culture-orientation, banks' internal environment, IT systems and the positioning strategy. These are factors shaping Saudi banks' ability to create and deliver value of m-applications. All these factors are combined to establish value creation for customers in the mobile domain. Saudi banks expressed different perspectives regarding m-applications value creation. This is mainly because of the power shift to customer-centricity. The impact is enhanced by improving customer value profitability and relationship over time. It becomes apparent that with recent development of the m-commerce domain banks have adjusted value creation to meet the needs of the new banking behaviour. In order to address customers' changing needs and preferences, Saudi banks have developed a customer-centric approach to deliver new capabilities across all e-banking channels including mobile banking. Thus, m-applications are seen as a differentiator brand element for most examined banks. This can sustain bank-customer relationships to fulfil the demand for more personalized service and consistency of customer experience for each segment across e-banking channels.

It is worth mentioning that the factors involved in creating and delivering value of m-applications are a shared responsibility between banks and other aspects of the Saudi business environment, such as the legal system and the telecommunication sector. In addition, it implies that improving the creation and delivery of value is a complex process that goes beyond banks' internal management. Also, the infrasctructure of mobile services suppliers has a key role in the success of m-commerce. More specifically, the availability of wireless Internet technologies with good coverage is largely responsible for service quality. This would contribute in providing better mobile service offerings and improving m-commerce services.

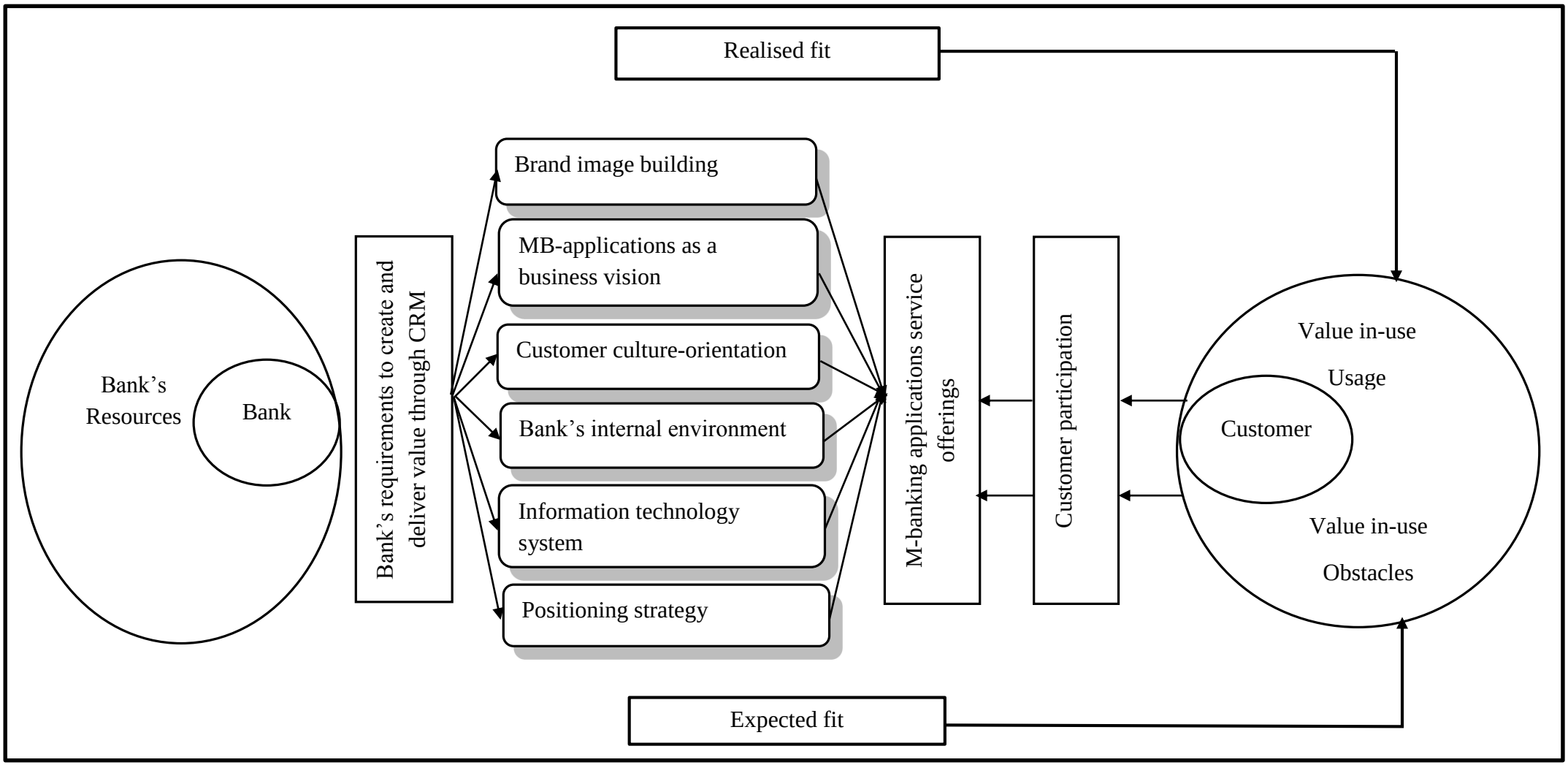


Figure 39 Factors shaping banks' ability to create and deliver MB-applications value proposition: a proposed model.

CHAPTER SEVEN
SECOND PHASE DATA ANALYSIS: PART ONE

Table 28 Current chapter position in the research.

Chapter One	Introduction
Chapter Two	Research context: Saudi banking sector overview and MB services
Chapter Three	Role of Customer Relationship Management (CRM) in value creation and delivery
Chapter Four	An overview of customer buying behaviour in mobile services context
Chapter Five	Research methodology and data collection methods design
Chapter Six	First phase data anlysis: suppliers' persepctives
Chapter Seven	Second phase data analysis: part one
Chapter Eight	Second phase data anlysis: part two
Chapter Nine	Discussion and interpretations of findings
Chapter Ten	Conclusion, recommendations and research contribution

7.1 Introduction

This chapter presents findings on factors which shaped value construction from a customer value creation perspective. These findings helped to build a value perception framework which includes a wide variety of m-applications services with a particular interest in MB services. They were generated from three focus groups and cover actual experiences of m-applications services use. This helped understanding what kind of value customers create through the usage of m-applications services. It was found that customers experience different values through their mobile phones usage. In addition, findings presented that consumer behaviour regarding what types of mobile services are preferred and in what situations they were valuable. This enables better conceptualization of how customers create value and motivations to interact with mobile phones in particular usage context. As a result, suppliers can develop strategies that capture customers' perceived value and reach them in the situations identified in this study. Figure 40 shows the main subjects discussed in this chapter.

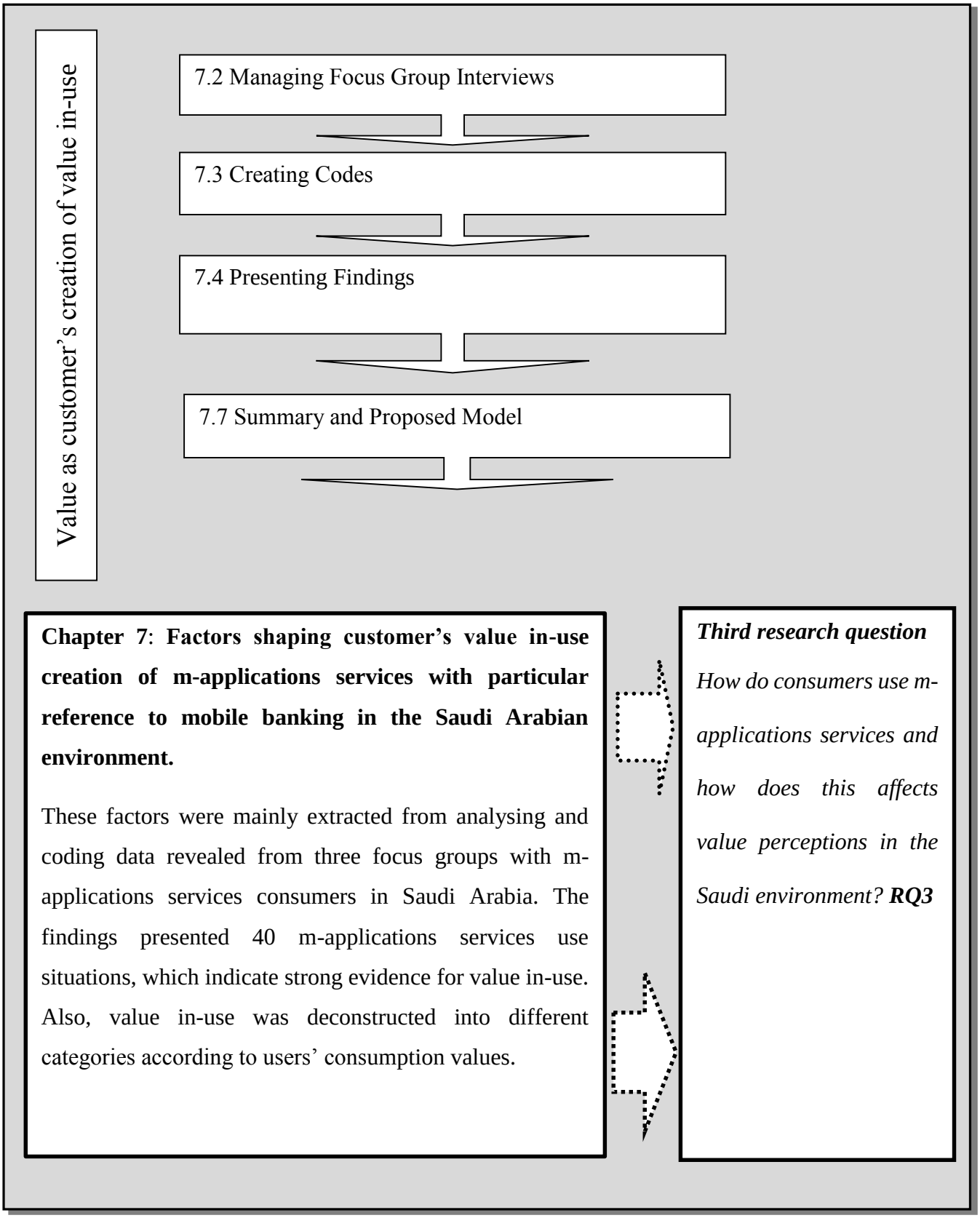


Figure 40 Structure of Chapter Seven.

7.2 Managing Users of MB Applications Focus Group Interviews

Three focus groups were conducted to develop the perceived value in-use of MB applications framework among technology users. They were conducted between June and July 2013 in Riyadh with MB applications users (n= 20). The average number of participants in each group was between 5-7 participants (Table 29). As mentioned in the methodology chapter, one of the sampling difficulties the researcher faced was the difficulty of reaching a sample list of MB applications users. Therefore, it was decided to apply a purposive sample strategy to recruit samples with predetermined key characteristics (Patton, 1999). Thus, for MB applications users' focus groups, each participant was selected based on previous experience in using MB applications transactions (he/she should have carried out at least one transaction via MB application), age group and prior use of technology.

A total of 20 bank clients were gathered and interviewed in Riyadh Technology College. The rationale for choosing this as the venue was because it could offer a secure and relaxed atmosphere for participants. Access was obtained in order to have permission to use the College facilities. Also, the discussions were set in informal settings to encourage participants to engage with others. Furthermore, participants were reminded of the date, time and venue of the meeting the day before the event. This helped to ensure participants' attendance.

For participant selection, purposive sampling was applied from the researcher's social network. Then, each participant was invited to suggest for other participants, employing a snowball sampling technique. This saved the researcher's time and effort in looking for new participants.

In conducting focus groups with MB application services, the researcher introduced the main themes that would be discussed. All participants were encouraged to participate during the groups. Some of the participants had more than one bank account in different banks. This was helpful to the researcher, as it enabled comparisons among participants of the service provided in each bank's MB application service.

These interviews lasted approximately 45 minutes to one hour. Before the interviews proceeded, each participant was handed an informed consent form and demographic profile sheet (see Appendix 10). This enabled identification of individuals' information regarding their choice of banking methods. Interview questions were concerned mainly with mobile applications value in use. During the interviews deeper issues were explored as they emerged.

Table 29 MB applications users focus groups - participants' statistics.

Characteristic	Descriptive Statistics	Number	Percentage %
Gender	*Males*	13	64.59
	Females	7	35.39
Age	*26-30 years*	10	50
	31-35 years	9	45
	18-25 years	1	5
Education	*Bachelor level*	11	58
	Diploma certificate	3	16
	Professional qualification	2	11
	Master level	2	10
	Undergraduate	1	5
Occupation	*FT student*	14	70
	Self-employed	3	14.5
	Public sector	1	5
	Private sector	1	5
	PT student	1	5
Smart-phones experience	*> Three years*	9	45
	> Two years	5	25
	> Five years	3	15
	< One year	3	15
Income Level	*> SAR 11.000-15.000*	10	50
	< SAR 6000-10.000	4	20
	>SAR 16.000-20.000	4	20
	< SAR 1000-5000	2	10
TOTAL	**20**		

(Source: Author)

7.3 Creating Codes

Before coding inception, transcripts were prepared for data analysis using Miles and Huberman's (1994) model (**see chapter 6 subsection 6.2**).

During coding, two issues were emphasized. The first one was to generate factors shaping customer perceived value in-use of m-applications services. The second was to add extra dimensions overlooked in previous research and explain the Saudi buying behaviour in the context of e-banking services.

To extract relevant codes, transcripts were read carefully to identify themes reflecting the role of the service suppliers, m-applications services related features and the role of the contextual environment. The role of these three factors in shaping MB services, perceived in-use value

was emphasized in the literature review on the value creation process and S-d logic and the conceptualization of e-banking services' value added benefits (**discussed in chapter 2**).

However, the relative importance of service provider and m-applications services in shaping perceived in-use value depends on the customer's attitudes (acceptance) and situations experienced in dealing with the service offered or using MB services. In addition, the Saudi Arabian culture, which may be different from those of previous studies, might have an effect on customers' attitudes towards of e-banking services. Moreover, the differences in e-banking features and mobile services availability among cultures might influence customers' judgment on factors shaping the value of e-banking services for banks' clients in the Saudi milieu.

The initial phase of coding was guided by looking for ***what*** dimensions (codes) and ***why*** dimensions (codes) which explain customer perceived value. These dimensions were emphasized during the analysis to depict m-applications services value categories as a holistic phenomenon. The researcher was also looking for ***how*** these dimensions interact in shaping value in particular use situations. Therefore, the researcher searched in the data for those dimensions and factors (codes) explaining the perceived value. Although the coding was data-driven, it was necessary to look behind technology acceptance and find out about customers' decision to use m-applications services, and how they make the decision to use a given mobile technology to satisfy functional, social, emotional, epistemic and conditional values.

Through data analysis, the initial emergent codes were linked to prior determined theories. Accordingly, codes (factors) reflected a mix between theoretical and free coding. Theoretical codes were those which were guided by the existence of literature and related to each other to form an integrated theory (Maxwell, 2005), while free coding reflects the researcher's first steps towards gradually making sense of the data. Both types were applied during the coding process.

After that, axial coding was used to link free codes into categories and clusters which eventually developed into theoretical themes and concepts (Strauss and Corbin, 1990). According to Strauss and Corbin (1990) the essence of axial coding is to identify some central characteristic (the axis) around which differences in dimensions exist. During axial coding, factors should be linked together in a coherent logic to explain conditions, causes and consequences (Miles and Huberman, 1994). In order to relate axial codes together, the relationship between situations use and value motivators was drawn from the context. The real context reflecting customers'

experiences in terms of m-applications uses was highlighted in the initial free codes. Furthermore, in order to add depth to the analysis, examples of customer activities of MB applications services were created (table 30). Classifying participants' use situations according to their previous experience with m-applications service consumption in Saudi culture added more depth to the analysis. Moreover, it assisted the researcher to pull out more free codes and actual use situations from participants, which explain the emergence of free codes in the texts.

Accordingly, emergent categories were established and refined to reflect a cause and consequence situation. Subsequently, each higher-level category could be seen as a consequence of a set of causes (codes). Hence, categories were grouped into more theoretical concepts to be used as dimensions shaping perceived in-use value. This process highlighted those dimensions and factors of importance of consumption values as motivators to customer attitudes towards (acceptance of) m-applications technology. Hence, they expounded how customers create their own experiences and value independently through the e-banking self-service channel in the Saudi Arabian environment.

Table 30 Theoretical origin of codes.

1st order categories Inferential	Descriptive Codes (free coding examples)	Origin in Literature
Functional value	Ease of use	Jeong & Yoon (2013); Cheah *et al*. (2011); Daud *et al*. (2011); Luaren and Lin (2005).
Spatial value	Location flexibility	Kainth and Verma (2011); Yang (2009); Pihlström and Brush (2008); Laukkanen (2007);
	Location free	
Temporality value	Time flexibility to use self-service	Kleijnen *et al*. (2007); Gummerus and Pihlström (2011)
Emotional value	Aesthetic value	Maghnati and Ling (2013); Kim and Han (2011); Kim and Oh (2011); Turel *et al*. (2010); Pihlström and Brush (2008); Pihlström (2007); Nysveen *et al*. (2005)
	Perceived playfulness	

Epistemic value	Seeking novelty	Wang *et al*. (2013); Pihlström (2011); Pihlström and Brush (2008); Pura (2005);
Conditional value	Real situational events	Pura (2005); Sweeney and Soutar (2001); Holbrook (1999); Sheth *et al*. (1991);
	Depends on the context where value judgment occurs	
Social-image respect	Social pressure	Lee et al., (2003); Rogers (1995); Yang and Jolly (2009); Turel *et al*. (2010); Riquelme and Rios (2010); Suki and Suki (2007); Nysveen *et al*. (2005)
	Self-esteem	

(Source: Author)

7.4 Factors Shaping M-applications Services Value

To illustrate the interrelationships between values and uses category, a deconstruction of each participant's usage behaviour was applied (Table 31). The code creating process was applied to determine value in-use extracted from the consumption experience of m-applications services. It was suggested in previous studies that the best way to see the true value of mobile devices is to see it in the context of user situations (Anckar and D'Incau, 2002). The consumption experience might involve more than value. For example, mobile network (e.g. 3G) was perceived as a main driver for easier and faster service accomplishment. A bank customer finds the m-applications service functionally valuable, because it offers faster access for mobile service.

Table 31 Customer use experience types of m-applications services.

Case code	Age group	Gender	Education	M-applications service Usage and purpose	Source of mobile value
1	26-30	Male	Diploma certificate	Account information and banking transactions	Convenience, time saving
2	31-35	Male	Master	Banking transactions Funds transfer	Solving urgent needs, spontaneous decisions
3	31-35	Male	Bachelor	Social media Communication service	Social value
4	26-30	Male	Bachelor	Account information Balance check, stock market buy/selling	Functional value
6	18-25	Male	Bachelor	Games, TV watching	Hedonic value , entertainment needs
8	31-35	Male	Professional qualification	Banking transactions Funds transfer	Mobile value, spontaneous decisions

9	31-35	Male	Diploma certificate	Account information and banking transactions	Convenience, ubiquitous accessibility to service
12	26-30	Male	Bachelor	Banking transactions Ministry of Interior liabilities	Temporal value, mobility related-needs
13	31-35	Male	Diploma certificate	Balance check and credit card payments	Conditional value
15	31-35	Female	Professional qualification	Account information and banking transactions	Functional value
20	31-35	Female	Master	Social communication	Social value

(Source: Author)

The use situations were grouped into mobile context and perceived value in-use (Figure 41). Mobile context signifies the value arising from the mobility of using mobile services (Kleijnen *et al*., 2007; Pihlström and Brush, 2008; Laukkanen, 2007a; Anckar and D'Incau, 2002). It emphasizes the importance of time and location value dimensions of service delivery which may thus be seen as parts of customer perceived value of the service (Heinonen, 2006; 2004). In this study, mobile context value includes conditional value. Mobile services are designed to fit tasks which are usually performed on the move. Hence, the user's context creates conditional value where the consumer needs to access services in certain situations and for specific purposes.

However, functional, emotional, epistemic and social values help to understand customers' perceived value in-use in certain situations. They typically drive m-applications service use; therefore, they assist customers to create their own value in-use and experience at the time of consumption (Lähteenmäki and Nätti, 2013). Hence, the following conceptualization is generated from actual mobile users, which yielded 40 use situations of m-application services. The following section presents the main findings.

It is important to note that value in use cannot be predefined by the service supplier, but is defined by the user of a service during the consumption experience (Sandstrom *et al*, 2008). It is generated from the value perceived from mobile services consumption. Thus, mobile devices are the source of perceived value to consumers during service use.

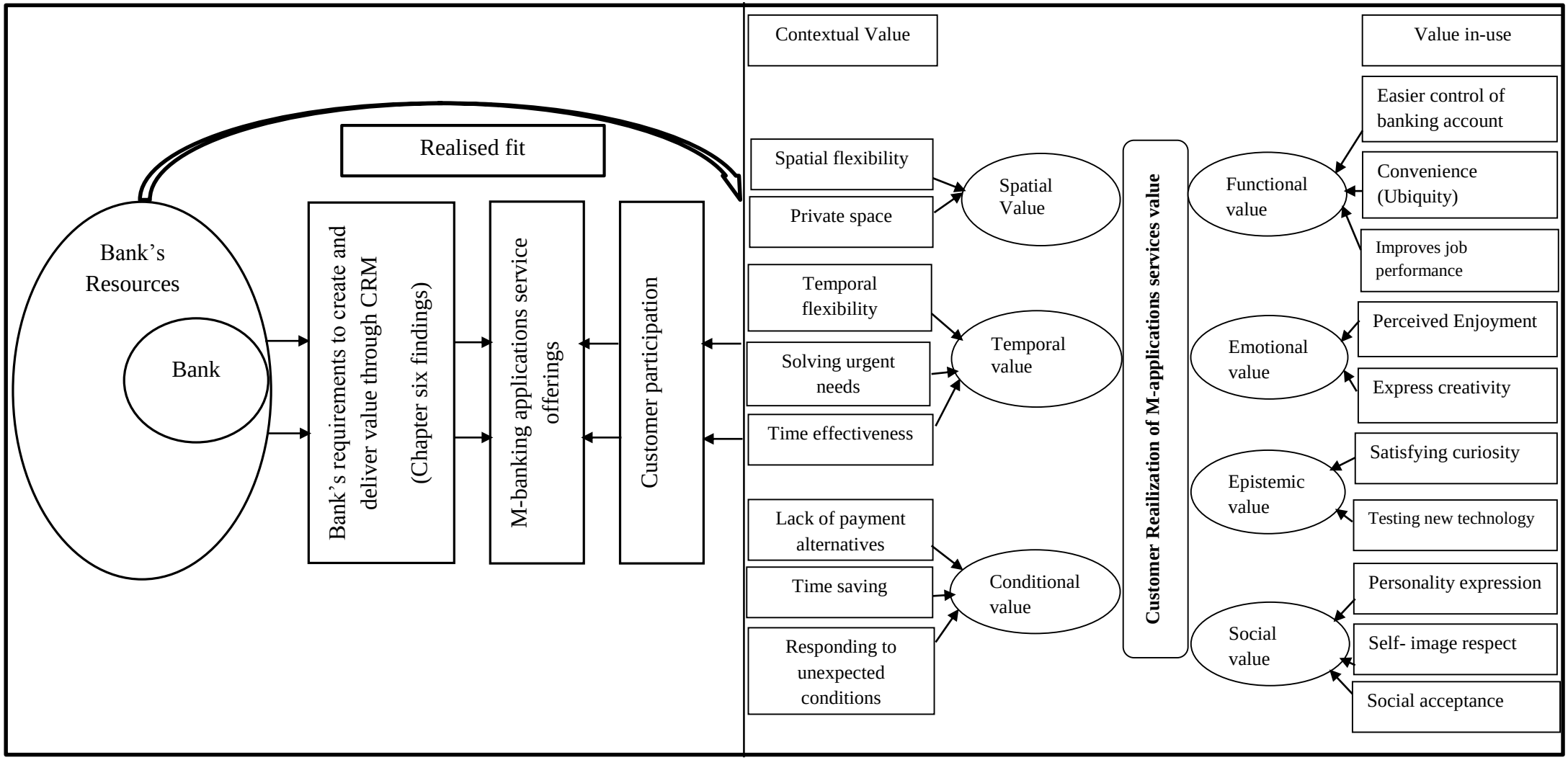


Figure 41 Development of research model: linking suppliers' value creation to customers' value realization as a value in-use in m-banking services.

7.5 Perceived Contextual Value

The role of context was repeatedly raised by participants as a focal element that drove their use of m-applications. It indicates the interaction between users and m-applications at a certain location, time or any other surroundings which affect the value of m-applications. Findings on contextual aspects showed that the mobile value was related to use situations in terms of ***when***, ***where*** and under which ***circumstances*** m-applications are used. Mobile context provides an understanding of the way and circumstances for consuming m-applications services. M-applications are designed to provide alternative channel where customers' needs are fulfilled through time and place independent service accessibility. This might increase mobile channel usefulness because it enables the immediacy in meeting customers' needs. Obviously, customers' needs vary according to a specific context in which services are used. This indicates that context has a key role in the adopting of mobile services. Also, some contextual factors might interconnect in influencing m-applications services adoption. Accordingly, the findings classify contextual factors of m-applications services into temporal, spatial and conditional values which provide better value creation to customers. The next section presents and discusses the role of context and customers' value perceptions in actual use situations.

7.5.1 Theme One: Temporal Value

Temporal and spatial values stem from mobile services anytime and anywhere accessibility. As noted earlier (section 3.7.4) service accessibility is conceptualized based on SERVQUAL dimensions (e.g. Parasuraman *et al*., 1988). Findings indicate that temporal value of MB application services is related solving urgent needs, temporal flexibility and time effectiveness.

- **[Solving Urgent Needs]**

M-applications value emerged from the opportunity in situations where the interaction is characterized by urgency. Immediacy access and 'always online' features of mobile devices are the main component in this regard. Participants expressed the value of MB application in terms of enabling urgent stock market orders, especially from #G Bank and #B Bank. One explained: *''I am using #G Tadawal application services for stock market trading. I can follow the local stock and follow-up rates, and conduct trading operations such as buying and selling, modify sales orders and purchase or cancellation of old orders constantly from the application at any time'' (interviewee no. 9).* Another one mentioned: *''I was going out for a social gathering and found out that I needed a mobile top up. I decided to use my bank m-application value added services as I did not want to waste my time in a traffic jam looking for the nearest*

ATM. I used it and it worked perfectly. It was the first time I'd used a MB application service'' (interviewee no.1).

M-applications offer an effective way of exploiting the reachability of mobile users for providing emergency services. SMS-based alerts notifications provide urgent-need value to users. One participant reported: *''I was waiting for my flight at the airport when I received a SMS alert saying that the flight gate had been changed. It keeps me up-to-date for any unexpected circumstances'' (interviewee no. 11).* In the same focus group, another participant mentioned: *''I always prefer doing SADAD bill payments via the Interior Ministry m-applications services. Once I went to renew my driving licence and I forgot to pay the fees. A friend of mine told me that I could do it using the m-applications services. It saved me time instead of queuing for the payment'' (interviewee no. 4).*

- **[Temporal Flexibility]**

Unlike urgent use situations, consumers may find m-applications services valuable for casual or unplanned needs. Temporal flexibility offers convenient and direct access to the service. Participants described different situations where they perceived the temporal flexibility of m-applications services. Some of these concern the response of MB application to unexpected behaviour. One interviewee mentioned: *''I prefer the stock market service which my bank provides over the online medium. It provides easy access to the stock market prices on a daily basis. Also, it has more options where I can track the movement of the stock that I have in my portfolio'' (interviewee no. 5).* Another one commented: *''It is available 24 hours 7 days a week, where I have access to many services for transferring money and paying my bills'' (interviewee no. 8)*

Other participants perceived the utility of mobile navigation applications services. They highlighted the basics as a) ease of access and downloading (i.e. some come pre-installed in the mobile device); b) helping in planning and navigation trips; 3) the ability to communicate in real time. This is reflected by providing proactive and relevant information to users within the context of their location at a particular time. A participant stated: *''In a crowded city like Riyadh, I prefer to use the Google Map application to search for an unfamiliar destination that I am heading to for the first time. It gives an estimate of local traffic status and approximate time of arrival'' (interviewee no. 10).*

- **[Time Effectiveness]**

Time effectiveness value emerges when the tasks associated with mobile services delivery can be conducted quickly. MB applications services enabled a more swift process compared with online banking or visiting a bank branch. One interviewee explained that: ‘‘*MB applications services are more effective for money transfer. Due to my business I need to check my banking account on almost a daily basis. It becomes easier and faster to check my account balance and to transfer money with a few steps on the m-applications. I believe it is nice and calm to manage your payments on the MB application’’ (interviewee no. 4).*

7.2.2. Theme Two: Spatial Value

The spatial value of m-applications services has been reported as main driver to use mobile banking applications via a mobile device. It involves spatial elasticity and private space.

- **[Spatial Elasticity]**

Spatial elasticity refers to customer access to banking services from anywhere, at any time. Participants perceived MB accessibility as important in their perceptions of services. Most of them reported anywhere accessibility of MB, mainly for transactional purposes. It was appreciated by banks’ clients as it made service quicker. Unlike visiting a bank branch, clients preferred using the MB applications service because it does not take much effort to fill out banking information. Urgent needs require quicker banking ways to fulfil these needs at the right place and time. One interviewee explained: *‘‘The MB application makes my financial life much easier to manage. Once, my debit card was not working while I was doing my routine shopping. I stepped aside and transferred money using the MB application from another account. It saves time instead of looking for an ATM’’ (interviewee no. 5).* Others explained that omnipresent accessibility of MB applications was a great incentive to use the service. The on-demand feature provided by Saudi banks in MB applications (e.g. setting a target price for buying/selling stock market shares) attracts clients to use the service. Its main advantage is that it enables clients to access and place buying/selling orders from anywhere. It offers a real-time quotation transaction. One expressed that: *‘‘Due to my job responsibilities, I need to check daily stock market prices via the MB application. The ‘always-online’ feature makes it much easier to access real-time shares prices from the mobile. I set a reminder for maximum prices which I receive from anywhere and place the buying/selling orders. It is a great service’’ (interviewee no.2).*

- **[Private Space]**

Private space denotes the flexibility of the service consumption place. It is related to consumers' perceptions about the appropriateness of the place of m-application services consumption. Consumers' perceptions of a private space where they interact with offered services create benefits such as safety and tranquillity. It was understood from participants that online and mobile banking provide more private space during service usage. This was seen as a source of safety to customers for feeling secure (i.e. peace and quiet in one's home). One stated: *''Unlike doing banking in public spaces (he meant bank branches or ATM) online and mobile is more private and secure while I am at home. I feel safer as nobody is waiting behind me and I don't have to shout to the teller in the bank branch hall'' (interviewee no. 4*). Another explained that doing banking using MB application service is effortless and more convenient than visiting a bank branch. He interpreted this by saying: *''I prefer doing my banking services in my home. My bank has designated a special branch for stock market trading which is very far from my home and it takes a while waiting in a long queue to be served. Recently, #B Bank has offered an easy to use MB application service for stock market trading where I can place buying/selling orders and it performs transactions immediately while I am sitting comfortably at home'' (interviewee no. 11).*

7.5.3 Theme Three: Conditional Value

The distinctive m-commerce features (e.g. mobility, instant connectivity) enable users to have real-time service accessibility. Consumers find MB applications valuable in certain situations where the task requires immediate fulfilment. In this study, it was found that conditional value dimensions were represented by time-saving, lack of alternatives and geographical distance. These were identified to be the main situations under which MB applications were used.

Overall, the focus groups discussions confirmed that the effectiveness of task fulfilment is conditional on other external factors. These include, for instance, mobile network coverage, availability of a mobile token device (some Saudi banks require a separate token device for identity authentication) and situation use significance. Some of these surrounding factors were critically reported as expected to have an influence on the suitability of MB applications to support conditional value utility.

- **[Time-saving]**

The results indicate time saving and easy accessibility were the triggers of MB applications conditional value. One bank client found MB services enabled him to have more control over

his bank accounts and Visa cards in unexpected circumstances. He stated: *''MB application services helped me in different situations. It is an essential banking channel for me. During my travel, I use it for doing funds transfer from my debit card account to my pre-paid visa card account. This enables me to track my pre-paid visa card spending at any time or in case it gets lost or stolen as it does not have much funds'' (interviewee no. 10).*

- **[Lack of Payment Alternatives]**

Lack of alternative e-banking channels mentioned by interviewees highlights the necessity for identifying conditional value. Interviewees perceived MB applications' value added services and the possibility of avoiding queues to conduct mobile payment independent of time and location. Most Saudi banks provide SADAD payments (a government bill payment scheme) via MB. Therefore, interviewees commonly agreed that paying remotely using a mobile phone saves the user's time and they can avoid queuing or looking for paying points. One interviewee explained: *''One of the most useful services of MB is SADAD bill payments. Once I went to Directorate General for Passports to renew my passport and I found out that I had forgotten to do the payment fees. It was not easy to postpone it for another day due to time restrictions. I did the payment using MB application value added services. It was quick and instant when I received my SMS confirmation code'' (interviewee no. 3)*

- **[Unexpected conditions]**

MB applications' services help consumers to overcome location and time barriers. The always-online feature enables the delivery of time and location free value. Consumers may need to have access to banking services in unexpected conditions. Unexpected conditions exist in specific situations where consumers perceive the value of mobile services. Perceived benefits (e.g. location free) of MB allow customers to access banking services in certain conditions. One interviewee explained: *''I was doing my normal shopping when my debit card did not work. I checked my balance via the MB application and discovered that there were insufficient funds. I immediately transferred some money from my saving account to my debit card account using the MB application and got some cash instantly. The MB application saved my efforts and encouraged me to keep using it*'' (interviewee no. 6).

Furthermore, during focus groups discussions, it was found that conditional value is formed in specific unexpected situations, when customers may find mobile payments suitable to send and receive money using a mobile phone. An interviewee elucidated that person-to-person funds transfer can solve unexpected situations. Consumers found mobile funds transfer more

convenient to send and receive cash on the go. One interviewee mentioned: *''Once I was out with a friend of mine and I forgot to take my wallet. I needed some cash. What happened is that I accessed my bank MB application services and transferred an amount of money to my friend's account, which he then withdrew using his debit card from an ATM and handed it to me. I really appreciated the quickness of P2P money transfer in the MB application''* (interviewee no. 4).

7.6 Perceived Value in-use

Mobile phones represent more than a communication device; they are a way to express consumers' individuality through personalized screen images and ringtones. Therefore, consumers, particularly youth, have broad access to larger social circles, diverse information and a wide range of digital content including entertainment (Sultan *et al*. 2009).

In this study, findings indicated that value in-use is created from consuming specific m-application service content; which involves functional, social, emotional and epistemic values. They are related to perceived value in-use because consumers' value assessment emerged from using m-applications service content. For example, consumers perceive functional value of MB application in terms of providing easier control their over bank account. Value in-use dimensions are defined and described next.

7.6.1 Theme One: Functional Value

Functional value derives from efficient task execution (Pura, 2006). In consumer behaviour, effective task execution has been referred to convenience, accessibility and ease of use (Holbrook, 1999). In addition, the literature suggests that several benefits attract customers to use self-service technology; ease of use, self-control, time-saving, speed of delivery and convenience (Laukkanen *et al*., 2007). Accordingly, findings of this study concurred with previous studies and showed that functional value of m-applications is depicted by three value dimensions: easier control of banking services, convenience of ubiquity and improving job performance. These dimensions are defined and described next.

- **[Easier Control of Banking Account]**

Some participants began utilizing advanced m-applications services such as web browsing, personal reminders, videos/image editing and using e-mail etc. Others had abandoned many of the m-applications attributes and their use was limited to standard purposes such as phone calls and sending SMS text. Users of more sophisticated m-applications expressed that they used

them for instrumental purposes. One interviewee indicated: *''Due to my mobile work situation I prefer using mobile e-mail over the stationary. I need to report messages immediately before waiting to arrive to my office and leaving the work overloaded'' (interviewee no. 6).* However, due to consumers' experience of using technology over time, they may build more knowledge of how to use new m-applications. *''I think my MB application is suitable for easy transactions such as checking account balance. It has less access steps than #A Bank's Online banking channel. I use it mainly to check my balance at specific and certain times '' (interviewee no. 7).*

- **[Convenience (Ubiquity)]**

The frequent access to mobile services from anywhere at any time offers m-commerce unique ability and immediacy not attainable with traditional banking mediums. Previous studies identified convenience as a construct related to temporal and spatial aspects of the service delivery (Balasubramanian *et al*., 2002). One of the core objectives of MB provision is to extend the convenient accessibility of online banking (Lukkanen *et al*., 2007). Users can obtain any information that they are interested in, regardless of their location, through Internet-enabled mobile devices. This is a more convenient way for customers to reach mobile services.

During focus group discussions, the ubiquitous interactivity of m-applications was linked with uninterrupted connection of networks. Some participants argued that ubiquity value would be ineffective where the Internet network signals are weak or unauthenticated. However, others commented that ubiquity of the mobile device is the main advantage to access services without any cables. It was understood from participants that mobile devices' functionality is by providing omnipresent accessibility to reach banking account from anywhere. One stated:
''My bank has launched a new service where I can book an appointment at a bank branch customer's service desk. I really was satisfied when I tried it for the first time. This MB feature is highly innovative'' (interviewee no. 3).

Another explained that using MB applications is easier than Internet banking or visiting a bank branch hall. He further explained: *''For a while I haven't used the Internet banking channel for stock trading management. MB application features provide a one-step transaction for placing orders which saves a lot of time and effort'' (interviewee no.5)*

Another one stressed that MB application has become easier to access through mobile tablet. He mentioned that in his business, he needed a daily routine for transferring funds to other partners. He stated: *''With the MB application I do not need to wait until I go home and do*

online transactions. It has become more convenient to do it via the mobile tablet. It has become essential for my business (interviewee no. 2)

However, most of the participants agreed that MB applications have several benefits and convenience is the main driver of use. Adopters felt that it is more comfortable and enjoyable to use MB stock market transactions than stationary computers.

- **[Improve Job Performance]**

The 3G mobile network communication technology was perceived as a main trigger to m-application immediacy value. Basically, the 3G system enhances m-applications services by supporting faster data transmission, which in turn increases the perceived usefulness at in-use situations. It is expected to support more multimedia services and improved quality compared with other mobile telecommunication technology (e.g. 2.5G). Thus, 3G standard could be associated with a variety of entertaining and enjoyable service content. One interviewee commented on the benefit of the 3G system: *''3G mobile networks make applications more salutary. For example, try and go on Facebook or twitter and load up photos. It is dull and tedious on anything less than 3G.'' (Interviewee no. 12).* Another one stated: *''Another utility of 3G is not the speed but the ability to do many things at once when your mobile is connected to a 3G coverage area. It becomes easier to download e-mails and messages while talking on the phone'' (interviewee no. 5)*

7.6.2 Theme Two: Social Value

Social influence in adopting mobile device or particular services is expressed by social aspects (e.g. reference group advocacy to use new technology). Social value is gained through buying a particular mobile device brand which can be viewed by society members as expensive or luxurious. Moreover, social appreciation could be conveyed by using specific m-applications service content. The findings of this study revealed that social value is created through self-image (i.e. how one wanted to be viewed by others), personality expression and social acceptance.

- **[Self-image]**

It was found that self-image influences behaviour, as self-respect is a primary determinant of individual decision-making. Consumers might purchase a certain product or service in order to avoid embarrassment of others. This stems from social factors where a consumer imitates peers,

or the way s/he wants to be perceived. Consumers, in particular youngsters, could be more concerned about peer evaluation and are thus more likely to be highly influenced by watching the behaviour of others within their age group. Smartphone possession may appeal to some people as prestigious or sophisticated. Their penetration is increasing among peers, as an individual may feel like an outsider if he/she does not have one. *One participant said: ''All my friends have got smartphones and they use them mainly for communication m-applications such as Black Berry messenger. I want to join them and share funny stories and images'' (interviewee no. 5).* Another one stated: *''It is also the same situations for me. All my close friends use smartphones and they recommended me to use certain m-applications services. Especially for the iPhone because we use the same brand type and we can communicate freely via imessage. It saves me money instead of using SMS texts, which incur a fee from the service supplier'' (interviewee no. 13).*

One female participant commented on the social networks' chatting applications and how people use them their daily life. She stated: *''Although they have many disadvantages on users' psychological and social status such as loneliness, we should consider their positives. I started to use the social chatting applications (e.g. What's app) because I realized that most of my college friends were talking about it. I wanted to be involved in their discussion groups. I do not want to be different'' (interviewee no.19).*

Positive self-image is gained from the appreciation of others. Social media networks have become a highly accessible way for self-expression and sharing interests with others. One of the participants mentioned that his motive behind using social media networks, particularly 'Twitter', was to achieve social recognition. He explained: *''I believe that mobile social networks applications have various effects. It facilitates the process of expressing knowledge and points of view in my field of study and sharing them with my peers. For me, it is a modern learning tool which increases my self-esteem by receiving positive feedback from others. (Interviewee no. 13)*

Self-image respect stems from the positive result of using m-applications by enhancing one's esteem and social status. It represents confidence in using new technology to support one's self-esteem. One participant said: *''I remember once I was out with my friends. A friend of mine wanted to find the nearest ATM cash machine. I urged him to use the MB application because I have tried it before and we did not want to waste our time in traffic jam. I felt like a technology expert at that moment among my friends'' (interviewee no. 10)*

- **[Personality Expression]**

In addition, social value includes aspects of personality expression and social status among the public. This was particularly reflected in consumer innovativeness. Some consumers have a tendency for extensive technical knowledge which may influence their purchasing behaviour towards trying new products or services. Consequently, early adopters of smart phones and m-applications services may possesses unique personal traits which make them different from other consumers. One interviewee stated: *''I think my personality affected my decision to buy a smartphone. I am fond of technological gadgets and I like reading and sharing the latest news on them with my friends. Personally, I believe that m-applications have different utility features which make it equivalent to a laptop. For me I would always want to be in touch with the latest mobile technologies'' (interviewee 5).* Another one stated: *''I believe that cheap smart-phones are not reliable and I think that expensive smart-phones such as iPhone are among the best because of their durability and social status. Therefore, I decided to have one.'' (Interviewee no. 2).* One stated: *''Smartphones have become a modern lifestyle icon especially for the youngster. I personally an attracted to modern technology'' (interviewee no. 6).*

Similarly, one participant mentioned: *''iPhone reflects its innovativeness, easier to use and classier than other smartphones'' (interviewee no. 2).* In the same focus group, one mentioned: *''It is a chic and fashionable smart-phone device (he meant Apple). It always creates innovative electronic gadgets which make our life easier and simpler'' (interviewee no. 6).* Another female participant pointed out: *''I like always to be different and I do not like to imitate others and have similar smartphones. The mobile market has various brand names which give more options to suit one's favourite smartphone'' (interviewee no. 20).* However, some consumers reported other reasons for using smartphones. Besides the brand name, one participant declared: *''My smartphone has good specifications and is good value for money. I think for students the price matters when deciding to buy a new smartphone'' (interviewee no. 1).*

These responses presented that consumers' personality is reflected through purchasing particular brand name. Some brands represent stylish technology and high social class. They embody values such as innovation, chic product design and modern lifestyle.

- **[Social Acceptance]**

Social acceptance refers to appreciation of others gained by using m-applications. This aspect was found to be an essential motive to use m-application services. One interviewee mentioned that the rationale to use the mobile social network application 'What's App' was because it had

become the most popular application among his family-members and work colleagues. He explained that it is easy to use in terms of exchanging news and audio/video files. It allows more expression among individuals, no matter how distant they are, to discuss our family or work. Another woman expressed that 'What's App' is a good and modern communication tool. She elaborated that: *''As a mother, I use it to communicate with my family-members and my sons by sending educational video clips''*. Further, she expounded that this way of using m-application to reach and communicate with her family was appreciated, especially by her sons, as they felt it is a more civilized behaviour.

Moreover, social acceptance influence is related to social needs including belonging and affection. This may be apparent in collectivist nations. Smartphones' impact varies depending on the people's way of life and by expanding a sense of affection among one's circle of friends and family-members. An interviewee commented on the social acceptance influence of smartphones: *''It has become a sign for modernity (he meant smartphones). All my family and friends have them. Sometimes in our social gatherings, we make jokes and tease members who have old phones'' (interviewee no. 2).* Another one explained that smartphone penetration become incremental among members of Saudi society and we should not neglect their social influence. He believed that *''smartphones have a prominent role in the process of facilitating communication between family-members and parents, especially parents who are at work most of the time, despite the fact that direct communication is the best and strongest in the cohesion of the relationship'' (interviewee no. 3).* Another participant commented on using mobile social networks (he meant What's App): *''People have started to criticize you for not responding or participating in What's App groups. They favour this type of communication because it is free of charge and provides instant and real time information. It has affected the way we communicate on the mobile phones'' (interviewee no. 7).*

7.6.3 Theme Three: Emotional Value

Emotional value is acquired when customers' feelings are aroused during product or service experience (Sheth *et al,* 1991). Emotional value in m-application content is reflected by perceived enjoyment and creativity expression. Perceived enjoyment refers to as the extent to which using an information technology artefact provides enjoyment in its own right, i.e. not considering performance-related aspects (Hong and Tam 2006). Also, emotional value stems from aesthetic pleasure, as well as play or fun enjoyed for its own sake (Holbrook, 1999). In this study, findings indicated that emotional value is gained through aesthetic aspects of m-

application information design and layout which arouse users' emotions and express creativity while accomplishing the service.

7.6.1.1 Category 1: Perceived Enjoyment

In this study, it was found that perceived enjoyment is a main trigger for m-applications services adoption. It was depicted through:

- Expressing feelings during m-applications use;
- User's emotional attachment to the smartphone;
- Aesthetic design aspects of MB applications.

One of the important motives for playing m-applications games is to express sentiment and to seek pleasure, whether individually or collectively. Some participants reported that they perceived enjoyment and fun seeking of m-applications games use in waiting situations or to pass the time. One interviewee mentioned: *''It has become a spontaneous habit for me to use m-applications games when I am free, especially those games which help improving brain and intellectual thought such as War Chess or Numbers Detection'' (interviewee no. 4).* Another perceived enjoyment of m-applications via playing games with friends in social media networks applications (e.g. Facebook). The participant explained that it is easy to use mobile games and most importantly, there is the possibility of sharing photos and videos and receiving funny and teasing comments from his Facebook friends: *''It is undeniable the fun in playing mobile games on Facebook application because users are connected to hundreds of other Facebook users who also playing the same game. Multi-player gaming with friends gives another new level of fun by sharing scores and point achievement. What can be more fun than free entertaining games and at the same time expanding your friend list?'' (Interviewee no. 6).*

It was understood from focus group discussions that participants find m-applications useful for passing time, such as in waiting situations. Some of them expressed that they spend long sessions using m-applications for entertainment such as watching mobile video clips and sharing them with friends via social networks applications. One interviewee stated: *''I like watching funny video clips on the mobile and sharing with my friends. We spend a great time commenting on them and laughing at others'' (interviewee no. 10).* Another one mentioned that he spent more time on mobile social networks chat applications (e.g. Twitter). He explained: *''Mobile social networks applications are great a source of engaging with others during, keeping up-to-date with the latest local news while I am relaxing at home'' (interviewee no. 7).*

Another participant commented on the uses of m-applications. He elaborated that his mobile phone had become an integral part of his life and he felt emotionally attached to it. This involvement included keeping his mobile phone nearby, thinking frequently about it and feeling distressed if he lost it or forgot it when he went out.

It was found that emotional value stems from the usability and aesthetic aspects of MB applications design. Users of MB applications reported emotions such as satisfaction, pleasure and delight while task accomplishment. One MB application user explained: *''It has an attractive application design and great simplicity. I can customize its features based on my frequent use. Besides that, I can look for the nearest ATM which have a cash deposit service without the need to log on to MB application. It is a really enjoyable experience'' (interviewee no. 3).* Another client of the same bank commented on MB application by explaining that it is beautifully designed and it has become faster and easier to use after each bank's frequent update.

A client of #E Bank reported the main components of the bank aesthetics and creative aspects of MB application design. He elaborated that users are presented with a simple page layout including decorative icons and graphical buttons. This made using MB application service for frequent transactions such as top up services an interesting experience. He stated: *''This aesthetic design impressed and attracted me to use MB application services'' (interviewee no. 5).*

- **[Creativity Expression]**

Creative design of the MB application user interface (i.e. graphical elements, navigation design) could affect consumers' emotions. Some participants expressed feelings such as satisfaction with design attractiveness and visual aesthetics. During MB applications focus group discussions, there was a firm assertion of the role of m-applications' design and usability in user adoption of mobile technology services. In addition, it was found that a number of participants probed into the relations between design attractiveness of MB applications. They argued that MB applications have different levels of visual aesthetics and information design presentation. One of the bank clients explained that #B Bank's MB applications has a number of banking features which a user of the mobile may need. Further, it has a few pages which make the use experience easy and convenient. He elucidated that: *''its design (he meant the MB application) reflects smartphones' modernity and creativity. When I open my accounts, they come in circles shapes which I press to have banking details of each account. This is what we expect from #B Bank'' (interviewee no. 12)*

7.6.4 Theme Four: Epistemic Value

Epistemic value is acquired from new service or technology use as a result of arousing curiosity, providing novelty and/or satisfying the desire for knowledge (Sheth *et al*, 1991). Use of m-applications can be perceived as a new, intriguing way of finding and sharing information. M-applications' epistemic value aspects may arise in circumstances when a person is bored, curious about exploring new information and knowledge or when consumers want to experiment with something new. In the mobile context, epistemic value entails curiosity for new content and knowledge gained through testing new services (Pihlström and Brush, 2008). However, it was found that consumers' desire to learn and explore new things out of curiosity is an important driver of epistemic value of m-applications.

- **[Satisfying Curiosity]**

The curiosity of m-applications stem from the desire to pre-test the technology with before using it. This is driven by specific m-applications content to learn something new. One female participant explained: *''During my study it is easy to look for dictionary applications. They have different features. Some have a pronunciation feature others provide synonyms and antonyms. This arouses me further to know more about them to download the best'' (interviewee no. 16).* Another female participant stated that: *''There are various m-applications for cooking recipes which I consider more convenient than buying a cookbook'' (interviewee no. 18)*. Epistemic value grew even stronger with customers' experience, increasing the desire to try new m-applications.

Another way m-applications derive epistemic value is through the availability of downloadable photography content. One interviewee elaborated: *''I like sharing photos on social media. Therefore, from time to time I search for new m-applications for photos editing. They can awaken creativity. There are various image crafting applications which help me to come up with new ideas before I post it to my followers'' (interviewee no. 6).*

- **[Test New Technology]**

MB applications target customers are characterized by specific personal traits. One of them is that they have the willingness to try out new technology. Early adopters seek out new experiences because they focus on the long-term advantages that technology may have. Hence, this kind of customer with a higher level of personal innovativeness is expected to have more positive perceptions about new technology. One participant interpreted the use of the MB

application for the first time. He stated: *''I was looking for a m-application in the App Store when I recognized the logo of my bank accidently on one of the applications. I read its features then I downloaded it on my mobile. I was confident of the MB application when I received the SMS onetime authentication. This was the first time I had found about the service'' (interviewee no. 6)***.** Another participant mentioned:*''I received a SMS text from my bank which was about the launching of the MB application service. It had a hyperlink to the application marketplace. I downloaded it to try its banking features. The ease of use and authentication of access caught my attention'' (interviewee no. 3)*

In this thesis, the desire for knowledge is the primary trigger to arouse the consumer's curiosity to try out new m-applications content services. However, it is worth mentioning that epistemic value may gradually disappear after the consumption experience. As a consequence, consumers may commence to use m-applications in their everyday activities. This may be driven by the evaluation of m-applications services and attributes and directed by other value aspects than epistemic value.

7.7 Conclusion

This chapter presented factors shaping the value of m-applications content services with particular interest in MB application services in the Saudi Arabian environment, from actual users' perspective. These factors emerged from three focus group interviews with MB application service users in Saudi bank.

Findings explored the nature of use situations and illustrate how an experiential consumption has an important role in influencing customers' value perceptions. In addition, they highlighted the influence of use context on m-applications value. It pointed out theat the nature of the use situation and contextual elements have an important role in influencing the mobile value. The proposed analytical framework provides an assessment whether, and in what ways, specific m-applications services are likely to offer value for mobile phones users. Although little is known about customers' attitudes towards m-applications services, the results pave the way to understand the elements and special features of m-application services. This is critical for today's services suppliers to take into consideration the value perception of their service offerings. As indicated previously, consumers' more permanent value perceptions and preferences are related to the m-application content itself. This highlighted the importance of designing content strategy in developing better customer experience in m-commerce.

To sum up, the results of this chapter shed light on the factors shaping customer' value perceptions of m-applications services. This study considered m-application usage as consumption in order to research the roles of consumption values which drive customers to use m-applications service. It articulated the significance of different value perceptions in different usage situations. Results describe how value dimensions discussed in this study are related to each other. Also, results they point out how consumers make decisions towards adopting new technology. The results indicate that Sheth *et al.'s* (1991) generic consumption values also fit the analysis of decisions to use new m-application services. This is interesting for suppliers because it enables them to look at the consequences of new technology adoption from the perspective of consumer behaviour, which could help marketers develop better segmentation strategies. Other existing theoretical models might fail to acknowledge the conditional and epistemic values in m-commerce, which were proved to have a key role in consumers' new technology acceptance.

CHAPTER EIGHT
THE SECOND PHASE DATA ANALYSIS: PART TWO

Table 32 Current chapter position in the research.

Chapter One	Introduction
Chapter Two	Research context: Saudi banking sector overview and MB services
Chapter Three	Role of Customer Relationship Management (CRM) in value creation and delivery
Chapter Four	An overview of customer buying behaviour in mobile services context
Chapter Five	Research methodology and data collection methods design
Chapter Six	First phase data anlysis: suppliers' persepctives
Chapter Seven	First phase data analysis: part one
Chapter Eight	Second phase data analysis: part two
Chapter Nine	Discussion and interpretations of findings
Chapter Ten	Conclusion, recommendations and research contribution

8.1 Introduction

In order to reduce the possibility of product failures, it is essential for suppliers to identify the sources of obstacles to MB applications services. Non-adoption behaviour results in several outcomes. Refusal to use the service is the strongest form of non-adoption. Another outcome of such behaviour is delay or postponement, mainly caused by situational factors or the product's perceived complexity (Wood and Moreau, 2006). This chapter presents six reasons reported by Saudi banks' customers for not using MB applications. The obstacles were identified through conducting three focus groups with MB application non-users to find out factors that prevent banks' clients from using MB applications. It was found that non-use of MB applications could be related to mistrust barriers (e.g. perceived risk) or may take the form of inertia (e.g. inability to change certain behaviour) or could be related to marketing communicational issues (e.g. lack of information). Despite this, a number of non-users admitted that they had tried MB applications but faced difficulties which inhibited them from using them in the future. This necessitates building up strategies to improve customers' relative advantage of MB. As a result, when the obstacles have been overcome, the non-users will become users through perceiving the benefits of MB application services. Figure 42 shows the structure of the chapter eight.

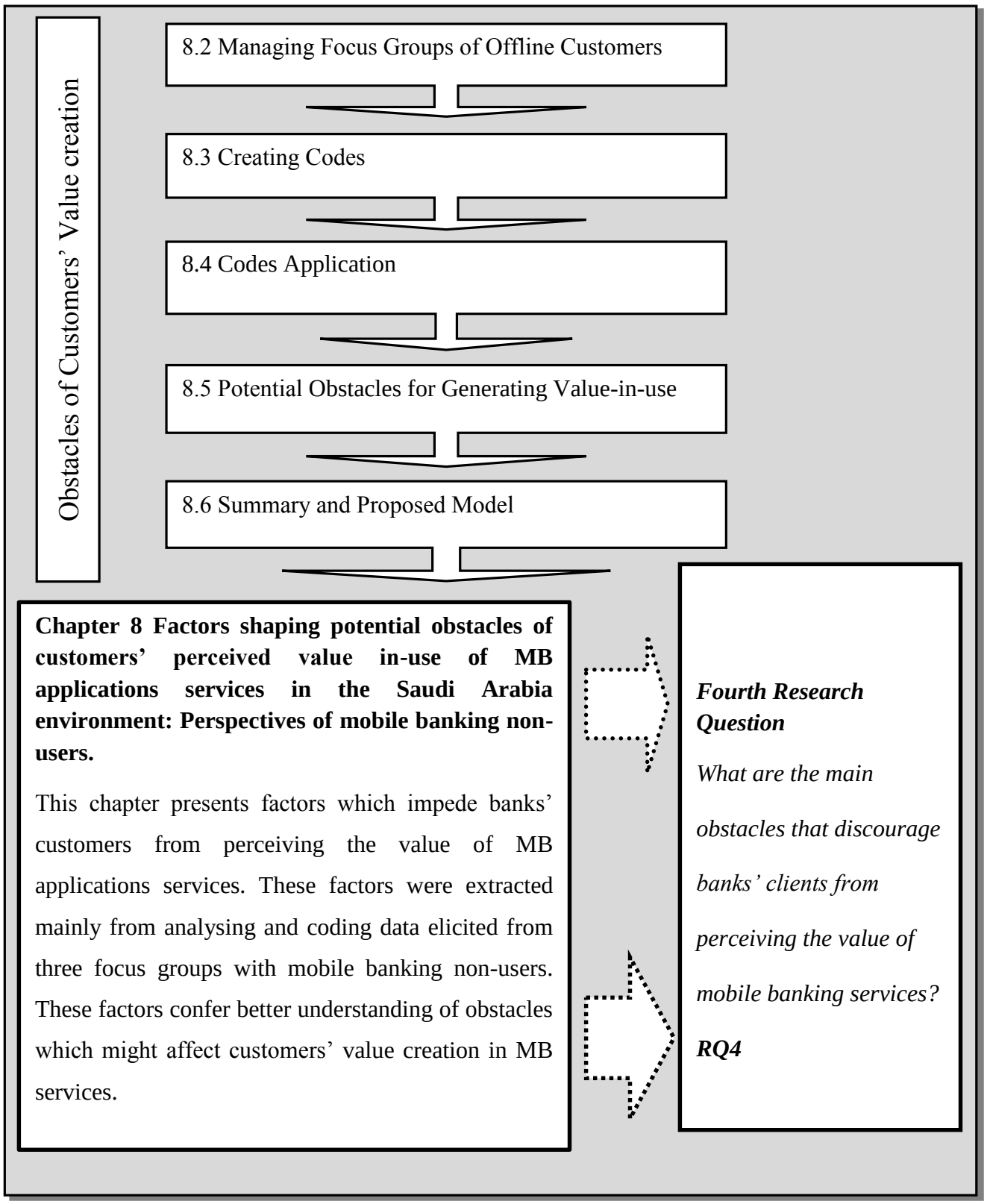


Figure 42 Structure of Chapter Eight.

8.2 Managing Non-Users of MB Applications Focus Group Interviews

The success of MB applications as a new delivery channel is not determined by suppliers' support but by customers' acceptance of it. Customers' decision to use MB applications are mainly related to solving banking needs. When MB applications clearly present the benefits and address customers' needs, then they are more likely to be used. In order to better understand obstacles to MB application services in Saudi Arabia, focus groups were conducted with non-users of the services.

The focus groups involved participants from different areas of Riyadh. The main purpose was to elicit customers' perceptions toward obstacles to use MB applications services. As noted earlier, in the literature review, researchers have examined different obstacles to MB services usage including consumers' demographic and psychographic factors. However, relative advantage might be an apparent influence on users' acceptance of new technology. In essence, customers may seek to perceive the value and benefits of the service before making the adoption decision. Consequently, the service should be able to satisfy their needs and provide benefits which make the service worthwhile to consume. Therefore, this chapter presents the main factors which might prevent customers from perceiving the value of MB applications services.

For focus group participants' selection, purposive sampling was applied from the researcher's social network. Then, each participant was invited to name other participants, employing a snowball sampling technique (Table 33). As stated in the methodology chapter, the main rationale was the difficulty of obtaining a sampling frame of MB application non-users, which necessitated finding an alternative sampling technique to reach potential participants. Purposeful sampling was applied in order to save the researcher's time and efforts looking for new participants.

The focus groups were conducted to discuss potential obstacles to MB applications services. This was achieved by introducing general themes regarding consumers' preferences of e-banking channels by comparing and contrasting their advantages and disadvantages. Then, the dialogue shifted to m-applications services; in particular MB services (see interview protocol Appendix 14). Different perspectives emerged which portrayed MB application services obstacles (section 8.5).

Table 33 MB applications focus groups non-users' statistics.

Characteristic	Descriptive Statistics	Number	Percentage %
Gender	*Males*	14	69.5
	Females	6	29.5
Age	*26-30 years*	8	40
	31-35 years	8	40
	18-25 years	2	20
	36-40 years	2	20
Education	*Bachelor level*	14	70
	Professional qualification	3	15
	Diploma certificate	1	5
	Master level	2	10
Occupation	*Public sector*	14	69.6
	Private sector	3	14.5
	Others	3	15
Smart-phones experience	*< Three years*	11	55
	> Two years	8	40
	> One year	1	5
Income Level	*< SAR 6000-10.000*	8	42
	> SAR 11.000-15.000	8	42
	< SAR 1000-5000	3	16

(Source: Author)

8.3 Creating Codes

The coding process focused on barriers to banks' current clients from using MB applications services. These barriers highlighted ***'why'*** some banks' clients have not adopted them and the kind of difficulties they have faced in perceiving MB applications value. Therefore, data coding included specific words, sentences and phrases which commonly occurred within and across the discussion groups (see Appendix 16). After that, codes were grouped and

theoretically conceptualised in the transcripts, allowing comparison and contrast between groups. When the preliminary coding process was completed, the list of factors was grounded in MB application acceptance literature to check that the factors were consistently composed.

The coded categories discovered in the interview transcripts were inductively developed according to qualitative content analysis (Miles and Huberman, 1994). The categories were refined over iterative reading and were grouped into factors at the end of analysis. The factors were then reviewed and key findings presented including major influences and new trends in MB applications acceptance. Then, factors were clustered into a theoretical framework conceptualising key factors in consumer MB applications adoption.

8.4 Codes Application

To extract relevant codes, all relevant data in focus groups transcripts were included to avoid omitting findings during the analysis. This was accomplished by reading through the interview transcript to code data and then drawing connections between categories and sub-categories. For example, to develop consumer banking habit as a barrier to MB applications use, a factor that appeared as a first order category was related to low perceived value of MB applications (lack of perceived relative advantage). Others mentioned that their banking needs were already satisfied via alternative e-banking channels such as ATMs or Internet banking (Figure 43). This indicates that the new innovative service should be perceived to be better than its predecessor in order for consumers to switch channels.

The coded sentences and phrases addressing consumer banking habits were grouped and categorized to reflect descriptive codes. Then, these descriptive codes were linked together to reflect the *consumer's banking habit* main theme. This factor which impedes bank clients' perception of MB applications value were mainly related to consumers' habitual self-service banking behaviour. Online banking was mentioned as quite straightforward because of personal computer availability either at home or in the work office. Moreover, some Saudi banks imposed lower transaction fees in online banking transactions while other banks provide loyaltypoints per transaction which entitle clients to monthly promotions. For these reasons online banking allows consumers easier access to the banking services, convenience and lower service charges.

Some interviewees expressed obstacles related to the perception of mobile phones for MB service delivery. These pertained to mobile device constraints, such as slow Internet connection

in some cities in KSA, small screen and difficult in-put mechanism. Other interviewees reported that mobile behaviour was associated with pleasure (e.g. mobile applications games, chatting, TV watching) and it is not appropriate for conducting banking transactions. Accordingly, MB applications suppliers should arouse the hedonic value in the promotion of perceived value to mobile applications users.

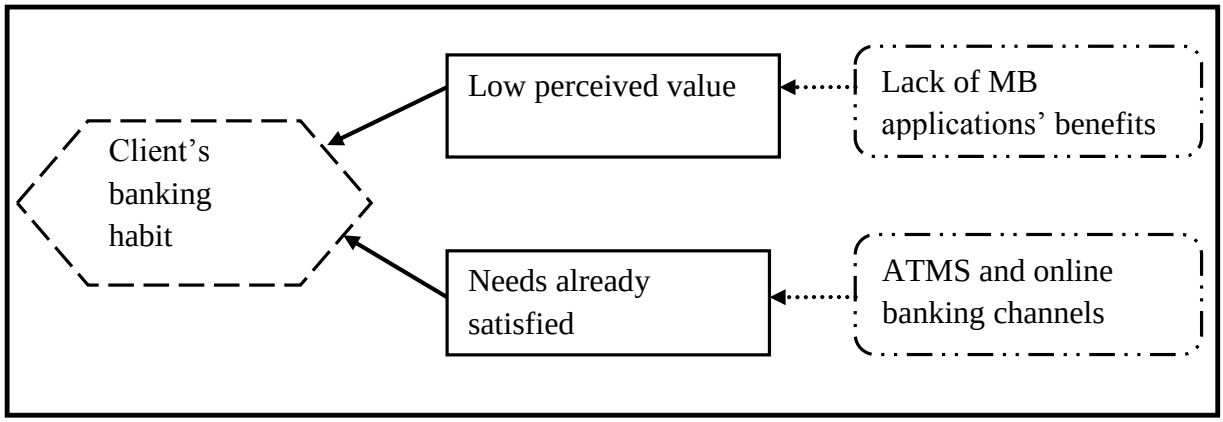


Figure 43 An example of creating and developing descriptive codes *(source: Author).*

8.5 Potential Obstacles for Generating Value in-use

Obstacles to use of MB applications services were described in relation to different situations. Findings reported from the three non-users' focus group interviews were related mainly to mobile-oriented barriers and others pertained to MB application service suppliers. These factors can be divided into: **1)** consumers' banking habits barrier; **2)** perceived risk barrier (security and privacy); **3)** usability barrier; **4)** marketing and promotional barrier; **5)** technical problems barriers and **6)** socio-cultural barrier.

Perceived value in-use barriers (themes) are presented in a theoretical framework (Figure 44). Then, factors are presented and discussed. Themes identified from interviews transcripts were grounded in data to shape the theoretical framework. Some of the themes that emerged were more important than others and some were linked together during focus group discussions. The final themes were selected and presented in the framework. A summary of the framework follows, with more important factors indicated by the analysis.

A usability barrier to MB applications services was identified by participants related to mobile device complexity and perceived in-put difficulty. In addition, usability was reported in terms of mobile inconvenience due to touch screen sensitivity, small size keyboard and tiny display

of the device. Perceived security and privacy were the two important aspects of risk which were reported by participants as the top two factors influencing clients' value perception. Lee and Ahn (1999) point out that trust is built on risk level which might be determined by network infrastructure, web and mobile application, customer privacy issues, data transfer security and system authentication. From non-users' standpoint, wireless connection of public Wi-Fi can be hacked and it is not possible to protect user information. Privacy was represented by m-applications spoofing, which is stealing of legitimate bank name applications in the marketplace. Also, this includes stealing clients' personal data or logon details.

The framework presented that banks should first attract clients to the benefits of MB applications services before consumers take the decision to use the service. However, it was revealed that banks have designed MB applications with a focus on their strategy while not considering targeted segments' awareness of the m-application. For example, a poor user m-applications interface was raised by participants in terms of getting crashed easily or cumbersome application system. Furthermore, MB applications' lack of marketing and advertising activities to make banks' clients aware of the provided services. Other factors were pertaining to consumers. Local social and culture of the Saudi Arabian population was reported as a barrier to MB applications use.

Demographic variables of participants were included in this study, which include gender, age, education, occupation, smartphone ownership and income level. Because this study is investigating MB application it was suggested to add smartphone ownership as a variable. This may explain the relationship between consumers and their behaviours (e.g. attitudes) towards using MB applications. The highest group of smartphone owners was 55% for those who had less than three years experience. The second group was those who had owned smartphones for more than two years (40%). Participants with more than one year's experience of using smart-phones was the third group (5%).

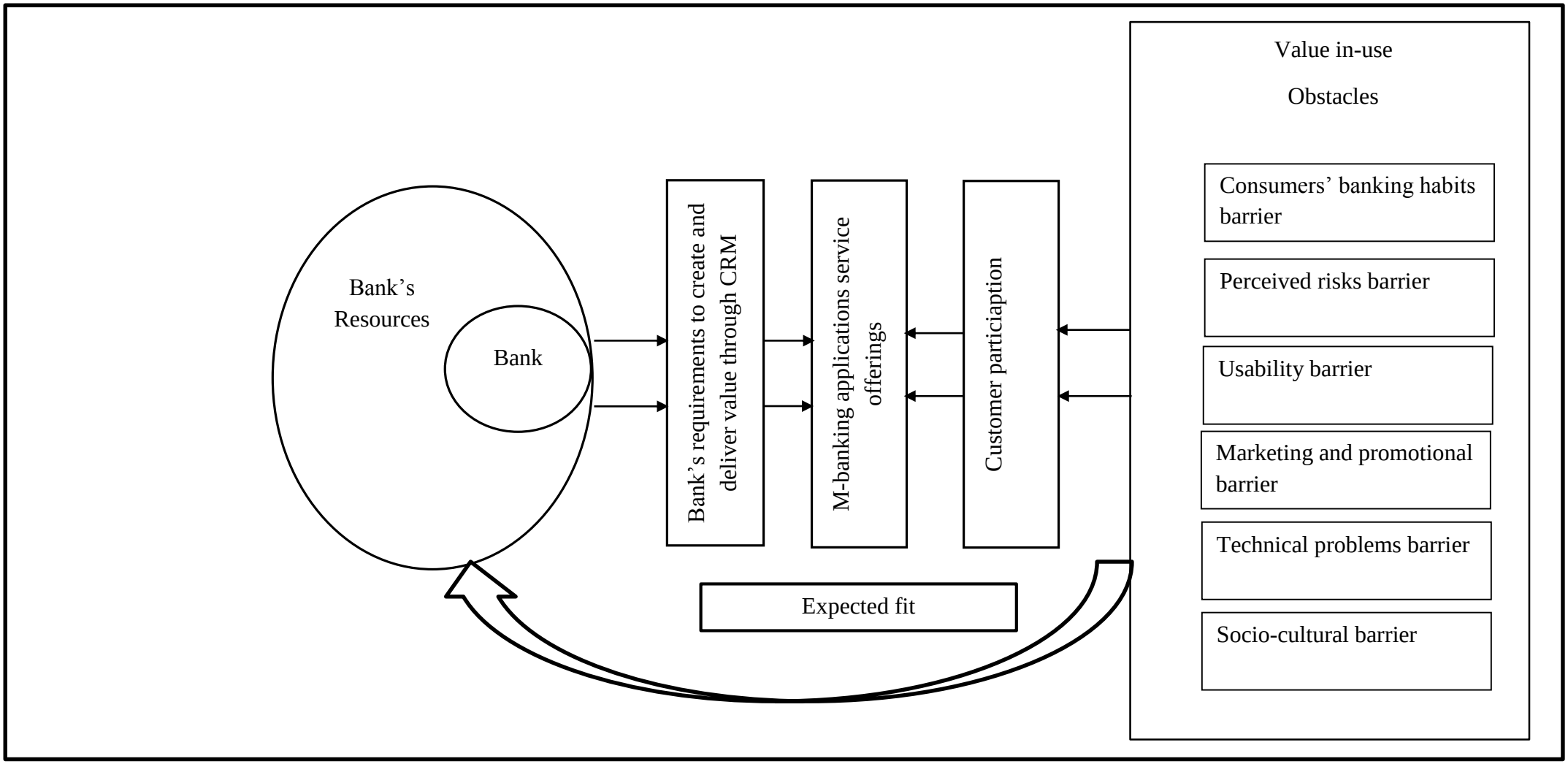


Figure 44 Development of research model: factors shaping obstacles to generate value in-use.

8.5.1 Theme One: Banking Habit Barrier

Banking habit refers to consumers' regular use of a particular e-banking channel to conduct their financial services. Focus group discussions revealed that other e-banking channels, mainly the online and ATMs mediums, can fulfil their needs of banking services. The perceived value of online banking features have attracted bank clients more than MB application in terms of bigger screen size, strong Internet connection, 24/7 availability and capability of handing more transactions at the same time. One participant stated: *''I like doing my banking services on my bank online channel. For mobile phone, it is difficult for me to do my banking needs. The buttons are small and it takes a long time for pages to be downloaded. I have been doing online banking for years and become familiar with its features'' (interviewee no.1).* Another participant stated that his bank has a promotion strategy for using online banking frequently. Therefore, he tried to keep using the channel and collect the points, which entitled him to rewards each month. He stated that: *''I prefer online banking over the mobile to conduct my banking transactions. My bank offers a rewards point-based scheme which I like to collect for keeping using the online channel. It counts the transactions I do in the online banking channel and sends me a points statement each month'' (interviewee no. 12).*

Others believed that online banking is more secure than the mobile medium. Also, it was found in focus groups that some banks' clients were more satisfied with using stationary online banking rather than other mediums. The reasons behind this were:

- Lower transaction fees;
- Incentives and motivations for using online banking;
- It has more security and authentication standards compared to mobile banking.

Participants' perceptions of online banking value had clearly influenced their response to other banking methods. Not surprisingly, non-users of MB applications services preferred the online channel for its capabilities such as the ability to print transaction receipts and the ability to store SADAD (government bill payment system) identifiers for a range of companies to which bills would be paid regularly (e.g. utilities or passport fees), which is unavailable in MB application. This comment discloses that: *''I have been a user for years and become familiar with how to access it. Moreover, I can save my previous transactions which makes it easy to do the bill payment or the beneficiary details next time'' (interviewee no. 4).*

In the Saudi banking sector, banks are investing highly in ATMs and deploying multi-purpose services which come under each bank's business strategy. For example, #G Bank has the highest ATMs market share, providing its clients with exclusive features such as ordering cheque books, debit cards, enabling online banking, opening new accounts and printing statements. One of the #G Bank's clients mentioned: *''I use the ATMs for banking transactions. It is easy to use since it needs only my debit card passwords. It has versatile transactional services. I use it frequently, mainly for paying utility bills'' (interviewee no. 10).*

8.5.2 Theme Two: Technical Problems Barrier

Technical problems are mostly related to the usability of the bank's MB application, including default errors and cumbersome systems. Some of these difficulties arise from the mobile device itself, such as inconvenient input mechanism due to the small keyboard and tiny display. Others were pertaining to m-applications services, such as error messages. These limitations pose new challenges for m-commerce developers.

It was understood from the interviewees that limited mobile Internet connections in some areas of Riyadh or in other cities impede MB. This causes mobile system difficulty in terms of page downloading and transaction speed. Mobile communication technology (e.g. 3G or 4G LTE) provides fast mobile browsing, which increases mobile service usefulness. Some participants expressed that 3G connection is weak in their geographical areas or under construction. This represents a major barrier for MB application services adoption.

Another challenge preventing MB application usage is mobile system default errors. Among the errors that participants spotted were page 'not found' or the system suddenly freezing. One participant stated: *''I tried to use the m-banking app offered by my bank, but each time I want to log in an error happens. I phoned the bank call centre but they did not have a clear answer. Thus, I still do my banking services in the online channel. '' (interviewee no.9).* Others reported that their MB experience was tedious as a result of frequent system errors, causing customer dissatisfaction. One client elucidated that: *''My main perception of using my bank's MB application service is that it has technical problems such as it sometimes logs off suddenly while I am using it. In addition, it needs a feature or an icon where the user can send an error report''. (interviewee no.4).* One of the participants mentioned that his bank's MB application lacked various banking features and it needed to be more attractive for users. He explained: *''My bank's MB application service needs an urgent fix. When I use the input language Arabic, it appears with separated letters and inverted. In addition, if I want to go back to previous*

pages, it logs me out''. (interviewee no.11). Some clients of #B Bank raised their perceptions about the bank's m-application. During focus group discussion, they reported that the offered MB application does not reflect the bank's capability and banking reputation. One client stated: *''I've started seriously thinking about opening a new account at a different bank which offers better application services'' (interviewee no. 3).* Another client from the same bank further elaborated: *''Indeed, it (meaning #B Bank's MB application) has many technical issues. It shuts down after a very short time and it requires re-logging in. I notice this when I update the beneficiary list on my account'' (interviewee no. 5).* Another one commented on these technical problems and mentioned that his bank's MB application has similar drawbacks: *''I tried to use #I Bank's MB application in different occasions but it did not open for me. I think the bank should develop a better m-application for its clients. I think they designed it to say that they have an application for smartphone'' (interviewee no. 8).*

8.5.3 Theme Three: Perceived Risks: Security and Privacy

Many participants responded that there were risks, especially security risks, associated with using MB. For example, violations of consumers' privacy and their confidential information. Fears were expressed about easy hacking of public Wi-Fi wireless networks. One participant explained: *''I do not trust a public Wi-Fi where anyone can join the network. I believe it has great threats to my personal information and I do not think it has enough privacy to use it for my banking transactions'' (interviewee no. 16).* Similarly, Wi-Fi public networks were criticized as an unsafe source which prevents customers using MB, by a number of other participants also. One participant commenting on this stated: *''Using banking on a mobile phone is quite perilous. There are many free wireless Wi-Fi networks in the public areas which are not trustworthy and may contain some viruses that hack your personal details on your mobile device'' (interviewee no.14).*

Another participant raised the issue of using the smartphone keyboard as a source of privacy risk. He stated: *''In the online banking channel, our bank provides a special virtual keyboard for data entry. It is not the same when you want to logon for m-banking services using the mobile device. Therefore, I have concerns regarding using my mobile keyboard for doing banking transactions'' (interviewee no. 12).*

Also, most interviewees mentioned that they did not feel comfortable without having proper documentation of their banking transactions. For example, one of the female participants mentioned: *''I still prefer to do banking services through the online channel because I can*

receive an e-mail confirmation of transactions. This makes it more secure than using the mobile channel'' (interviewee no. 20). Another female particiapnt explained that using telephone banking is much better and more secure than mobile or online banking channels. She mentioned: ''*I feel safer doing my banking services via the telephone banking channel. I remember once I made a mistake while doing a fund transfer. I got assistance immediately from customer service support and overrode that transaction. I'm not sure if this is the case in online or mobile banking channels'' (interviewee no. 17).*

Other participants believed that mobile device constraints such as small screen size or limited Internet bandwidth make it an insecure medium for banking. One participant commented on this by stating: *''Using a mobile terminal for banking faces security challenges in a number of ways. The mobile Internet bandwidth is narrower than that of laptops, which increases disconnection level, and hence, raises anxiety level. In addition, in comparison with stationary laptops, mobile terminals have high touch sensitivity which limits input buttons, displays and computing abilities. Lastly, mobile phones have limited battery power and memory capacity, which I believe is a great risk to use them for banking transactions'' (interviewee no. 6).* In a similar vein, participants were worried about the small input mechanism of the mobile phone. According to them, this increased the risk of their making mistakes, such as keying in an incorrect transaction number or paying the wrong beneficiary. The following statement is from one of those who had concerns about MB application. He expressed: *''I would be anxious that I may accidently make the wrong account number on the mobile keyboard, which would certainly make the wrong payment account. This is highly possible due to the small size screen on a mobile device'' (interviewee no. 2).*

Perceived complexity is another source of security restriction on using m-banking services. This is reflected by the slow data transmission in the mobile network connection. Despite the advance of mobile telecommunication technology (i.e. 4G), some consumers have still not altered their views on mobile services. One participant shared his experience by saying: *''After I keyed in all the information for bill payment using m-banking, it took a while to process the transaction. I was waiting for SMS confirmation but unfortunately the system logged out due to weak Internet connection and I was very disappointed'' (interviewee no. 9).* This complexity makes customers reluctant to use m-banking services, in particular if it needs more mental effort or is time consuming or frustrating. Therefore, for customers to develop a positive attitude towards m-banking and form the intention to use it such difficulties need to be decreased.

Complexity in use and technical design of service were reported as individuals' barriers. According to Rogers (1995) an innovation perceived as complex or difficult to use is unlikely to be adopted. The one time password (SMS text) is applied by some banks as a second factor authentication for m-banking access. Customer enters their access card and password. Them the screen prompts the customer to enter a onetime password, which is an SMS code sent to the customer's registered mobile phone number. Assuming it is correct, the customer is permitted to proceed with their banking on mobile channel. This procedure was described as intolerable when the customer is on the go. One participant drew special attention to this point by stating: *''The MB application's one-time password is ineffective. It comes in front of my mobile screen and I can't save it nor keep it in my mobile. It vanishes after a couple of minutes. It needs to be learnt by heart or written down, which is awkward if you are outside home. It makes the MB application experience more difficult'' (interviewee no. 6).*

In order to subscribe to MB applications, customers have to download them from the marketplace. In some situations, m-applications can be downloaded from anywhere, where security checks are powerless. This raises the possibility of counterfeiting applications. It was found that m-applications spoofing was a security concern for participants. This is the theft of a legitimate bank's brand name by imitating the original app design. M-applications spoofing is a common security issue among online companies. It comes under phishing attacks, which is one of the most common types of online fraud, where the fraudster tries to steal personal financial accounts such as logon details. One of the participants raised this issue by stating: *''The App markets are full of banking applications but I have not tried to use any. There's a high probability of their being counterfeited, so I cannot trust them'' (interviewee no. 11)*

Another security issue that came up during the focus group discussions was that banks have offered simple steps to authentication. Designing an effective authentication and authorization strategy is important for the security and reliability of m-applications. Weak authentication can leave m-application vulnerable to unauthorized use. Mobile devices are usually designed to be single user devices and normally lack basic user profile and security tracking beyond just a simple password. One participant stated: *''My bank's m-application allows me to access baking services by just using the online user name and password. It is less secure than the online channel because with that I pass through a multi authentication process which is not the case for m-banking application service'' (interviewee no. 5).* On the other hand, other participants mentioned that their bank has a complicated and demanding authentication process. One stated that: *''The problem with the m-application security authentication is that it is complicated to*

log in. It requires the users' name and password, then I need to confirm security image, then need to confirm security question and finally I receive a one-time password SMS confirmation code. It is a very long process which makes it very difficult to get access for m-banking services in an urgent situations'' (interviewee no. 9).

8.5.4 Theme Four: Usability Barrier

Developing m-applications with an easy-to-use interface is critical for successful adoption. M-commerce is designed to support time-critical activities. This requires service suppliers to understand what is important to users in creating a more compelling m-commerce experience. This would potentially encourage adoption, and thereby accomplish channel business objectives.

The data yielded by this study provides convincing evidence that the user interface design of m-applications represents a significant barrier to the use of mobile banking services. On a mobile device, the screen is so small that a carousel takes up a significant portion of the viewport. Alternatively, mobile users have to zoom in and out to monitor page content. An interviewee mentioned that: *''My bank's m-application user interface is very bad. The font size is very small and I can't do amendments on the page. When I try to use zoom in and out it immediately get crashed'' (interviewee no. 1).* This consumer's disappointment may cause a negative attitude toward the offered service. Furthermore, m-applications' page formats are perceived as complex, in terms of difficulty in keying in and slowness to move transaction pages. This suggests service suppliers need to simplify the ease of use of m-application services to boost usage. M-applications services require fast transaction procedures to suit consumers' use situation. This can be done by designing a one-touch task order in the m-application which could make it an easier experience for potential segment. One of the participants noted: *''It needs to be developed (means m-application service) in a way that the transition between pages and return to the main menu become more effort free. Moreover, it does not the permit user to add other debit card details in the app.'' (interviewee no. 10).* Thus, applying an effective user interface design is essential in engaging the end user. One of the biggest trends in m-applications design is simplicity. Good design that is easy-to-use and intuitive interfaces that are easy to navigate are critical to capture user interest. An interviewee mentioned: *''The design is unfriendly. The m-application should to be at a much higher atheistic level. It is very difficult to move between payment services. It needs more technical developments to attract users''. (interviewee no. 8).*

8.5.5 Theme Five: Marketing and Promotional Barrier

An important element that banks' clients would consider before the adoption is information they have about mobile banking. Ideally, consumers would identify major benefits and advantages of using a bank's mobile banking channel. Some interviewees reported that their banks do not promote MB applications services effectively. The significance of the information sources lies in the logical argument that clients do not have knowledge about the (new) m-banking service. This includes not having enough guidance on how to use the offered service or not understanding its benefits. Therefore, to boost the adoption process among target segments, it is necessary for banks to make clients aware of the availability of MB application services and explain the benefits, using promotional tools such as radio and TV and website advertisements or by distributing brochures at bank branches. One participant explained: *''**I** have seen a banner advertisement on an online website but there were no instructions on how to join the service or even how to use it'' (interviewee no.14).*

Other non-users drew the attention to not knowing about how to use m-banking services. To help ensure the success of launching a new product and improve its competitive position, service suppliers need to identify the most appropriate means to promote the service.

One of the participants explained that some banks provide more supportive use guidance than others. He elaborated that: *''One of banks that I have opened accounts with has offered a mobile video (test drive) on the online banking channel on how to install the application on the mobile device. It shows you step-by-step simple stages use guidance. I tried it and it worked fine'' (interviewee no.11).* This self-service was appreciated by the clients, especially in the absence of human face-to-face communication. Also, self-service terminals help banks' efforts in reducing customer service costs. Video-enabled self-service is a novel tenet to attract clients to use the proposed service.

8.5.6 Theme Six: Socio-cultural Issues Barrier

Social and cultural factors have a critical role in the perception of new technology adoption. Culture involves common values and traditions shared in a given society. Therefore, culture impacts the patterns of living and consumption among individuals. Culture can be acquired from the family, from the region or from everything that is around us as we are growing up (Kotler, 2003). An accepted concept of culture is that it includes a set of learned beliefs, values and attitudes that guide consumer behaviour (Evans *et al.,* 2009). In this study, it was found that customers' negative attitude, lack of knowledge and reference group about how to use new

technology impede MB applications services usage. Understanding customer attitude is pivotal in technology adoption. Attitude a general evaluation of a product or service formed over time (Evans *et al*, 2009). A consumer can hold negative or positive beliefs or feelings toward a product or service. One interviewee said: '*I do not think that mobile devices are suitable for banking due to the small size and sensitive touch screen. Therefore, the bank branch and the online channel are the best options. (Interviewee no. 6).* Similarly, another participant corroborated this view by stating: *''I believe the online banking is better than the mobile because it has more features and more convenience'' (interviewee no. 8).* One said: *''I prefer to go to the bank branch I prefer the face-to-face human contact and interaction with bank personal'' (interviewee no. 9).* Another participant stated: *''You cannot guarantee that you won't make mistakes on e-banking channels, therefore, I prefer doing banking services at the bank branch where there are staff'' (interviewee no. 3)*

Another issue was lack of customers' knowledge about the MB applications services. An interviewee commented: *''The bank officer told me that the bank offered (new) m-banking applications service, but I could not use it because I am not familiar with business m-applications'' (interviewee no. 3).* One said: *''I prefer SMS-banking that I receive when my bank account moves. It keeps me updated regarding my account security. Regarding m-banking applications I do not have a clear idea about how it works (interviewee no. 10).*

Others commented that there was no human interaction while using electronic banking services over the mobile medium. In other words, a service delivered over the mobile lacked the human customer service. One client mentioned: *''In some situations, I prefer talking to the bank's staff while doing my banking services. I prefer talking to tellers rather than using e-banking self-service technology. (Interviewee no. 7).* Besides this, another issue facing banks' clients is that they perceive the mobile as hacking in benefits. In this respect, financial service suppliers need more marketing efforts to communicate their value proposition to customers. During focus group discussions, many participants reported that they did not use mobile-based banking transactions and did not expect to use them in the near future. A female participant mentioned: *''I have not recognized the need for the MB application service. I am satisfied with telephone banking because I use it on a regular basis at my work. It is easy to use and I can talk to a human in case I make a mistake'' (interviewee no. 18)*

On the other hand, the influence of others is a determinant factor in consumer decision-making. Reference groups might affect consumer behaviour by influencing decision-making towards a

given product or service. A reference group involves individuals with whom a consumer compares him/herself. This could be friends, family-members or work-colleagues. This suggests that individuals feel social pressure to perform behaviour when they are motivated to comply with certain individuals or groups. An interviewee mentioned: *''I have not seen any of my friends who use or recommend the m-banking application services. We usually have discussions about mobile device brands, models and mobile applications games'' (interviewee no. 2).* Another one stated: *''I prefer to play mobile games online with my friends. I do not think of the mobile as a banking device.'' (Interviewee no.2).*

8.6 Conclusion

This chapter presented factors shaping MB applications barriers from non-users' perspectives. These factors emerged from three focus group interviews with Saudi bank customers in Riyadh. The interviews demonstrated that non-users are not comfortable with some MB and have not switched most of their transactions to the mobile yet. The results showed that customers have concerns regarding product-related reliability, which prevent them perceiving the value of the new MB services. However, some customers are comfortable with online banking so it is more easy to manage transactions rather than on the mobile. M-application is a new platform for service offering which suppliers should take into consideration m-commerce limitations when designing MB content.

This chapter summarizes six barriers to MB service delivery which stem from product-related, consumers' personality and suppliers' marketing issues. This showed that customers are still concerned mainly about security and privacy. Suppliers might need to communicate better with customers regarding security measures applied in MB applications. Media such as brochures or newsletters might be useful in this regard, to build customers' trust. Also, suppliers can benefit from online banking interactivity to facilitate superior customer service. From a marketing standpoint, suppliers can provide assistance through MB applications service instruction demos, audio and video chat. This might reduce customers' uncertainty and fulfil channel strategic business objectives.

Findings presented that segmenting mobile services have several criteria. This entails monitoring potential consumer behaviour and understanding motivations lies in customer decision-making. It pointed out that marketing MB applications services necessitate aspects such as behavioural, demographic and psychological characteristics. Banks' customers have different options for banking services delivery, MB applications adoption is still growing which

need concentrated marketing strategy. Also, findings showed that customers expected benefits, but they face complex MB applications services systems. This is manifested mainly in cumbersome user interfaces which require a long time for page downloading. Others reflect perceived risks represented by weak security and privacy standards. A few banks have offered reliable security standards and authentication process using onetime SMS code. Customers view this strategy as compatible with a mobile user who wants to access banking services from the mobile handset. Therefore, in order to ensure the success of MB applications services success, suppliers should focus on security issues, and on raising consumer awareness, education and acceptance of new technology-based banking services more, through advertising and promotion communication.

CHAPTER NINE
DISCUSSION AND INTERPRETATION OF FINDINGS

Table 34 Current chapter position in the research.

Chapter One	Introduction
Chapter Two	Research context: Saudi banking sector overview and MB services
Chapter Three	Role of Customer Relationship Management (CRM) in value creation and delivery
Chapter Four	An overview of customer buying behaviour in mobile services context
Chapter Five	Research methodology and data collection methods design
Chapter Six	First phase data anlysis: suppliers' persepctives
Chapter Seven	Second phase data analysis: part one
Chapter Eight	Second phase data anlysis: part two
Chapter Nine	Discussion and interpretations of findings
Chapter Ten	Conclusion, recommendations and research contribution

9.1 Introduction

This chapter validates and discusses the six factors extracted from the interviews with banks' managers. The importance of these factors in affecting supplier value creation and delivery process is validated from theoretical standpoints.

9.2 What are the factors that form the ability of banks to create and deliver the value of MB applications services in the Saudi environment?

9.2.1 Brand Image

Building effective branding can increase product differentiation and develop customer relationships through influencing customers' attitude towards the brands (Aaker, 1991). Brand development is particularly important within services firms where there is difficulty in differentiating products and there is a lack of physical characteristics for competing service evaluation (Zeithaml, 1981). In the financial sector, it has been suggested that a more distinctive brand image is essential to create a sustainable competitive advantage (Melewar and Bains, 2002). Besides that, branding is associated with creating value through the provision of a compelling offer and customer experience that keeps satisfied customers returning (Aaker,

1991; Kapferer, 1992). It was understood from banks' directors that investing in mobile technology would improve bank's brand image. This is obvious in m-applications design. The content analysis of Saudi banks m-applications revealed that branding is centred upon design. It is a means to keep pace with competition. The majority of interviewees agreed that investing in mobile and smart phone applications confers a consumer brand experience. Retails brands are based on providing consumer experience to enhance their brand equity (Keller, 2003; Aaker, 1991). Aaker (1991:12) explains the role of the brand in value creation for the customer:
''Brand-equity assets generally add or subtract value for customers. They can help them interpret process and store huge quantities of information about products and brands. Also, they can affect customer confidence in the purchase decision (due to ether past-use experience, familiarity with the brand and its characteristics). Potentially more important is the fact that both perceived quality and brand associations can enhance customers' satisfaction with the use experience''

According to Keller (2003) service providers depend on creating a different customer experience to enhance their brand equity, the value and knowledge a consumer links with a brand when he/she hears or sees the brand name or symbol. This would create a different customer response compared to other competitors in the brand category.

In the financial industry, brand image is a strategic tool of great value since it helps to achieve long-term objectives (Breele *et al*. 2004). The influence of image on consumer behavior is based on a number of conditions (Flavián *et al*., 2006):

- Image might be considered as a source of competitive advantage;
- A positive image will not solely support organizations to acquire new customers, but will also exercise a positive influence on the trust of other interested groups.

The branding design strategy expressed by banks' directors targeted mainly consumer usage experience. M-applications branding design aspects highlight the value which is addressed to the customers. This is manifested by ease of use, a simple navigation page and high security yardsticks. As it was understood from banks' directors, this could drive m-applications acceptance, positive word of mouth and acquisition of new customers through referral. Keller (2003) points out that branding design encompasses aspects including the name, symbol and design which differentiate the brand from competitors. In the view of four bank directors interviewed, the mobile banking medium is appropriate for sustaining relationships with

customers. According to Cuthbertson and Bridson (2006) two-way dialogue and communication, rewards, effective customer service, loyalty schemes and online brand communities are essentials of brand building. The main MB applications branding strategies examined include:

- Building an online customer community through social networks (e.g. Twitter, Facebook). Social media platforms confer 'listening tools' which help customer service (Gibson, 2012). This has several advantages. First, banks focus on relationship building with customers through promoting content marketing and sharing up-to-date bank news. Second, social media communities have flourished in the online space, which enables two-way communication with customers on a personal level, listening to their feedback and supporting customer service. Third, social media have become an integral part of direct marketing that allows brand sales promotions and more effective marketing campaign. Also, it was observed that banks have engaged with customers in mobile videos (e.g. Youtube) for educational and informative purposes. This includes 'how-to' knowledge and test drives for MB applications.
- Providing unique branding products or services to differentiate bank's m-applications from its competitors. The key to achieving competitive advantage is building superiority over rivals in the company's offer, which leads to benefits desired by the target customers (Bharadwaj *et al*., 1993). The outcome might lead to superior marketplace performance, which is represented by market share and customer satisfaction (Bharadwaj *et al*., 1993). Two of the interviewed bank managers indicated that mobile technology investment is part of the bank's continued leadership in e-banking services provision to improve its competitive position. This is reflected by launching m-applications to meet the needs of different customer segments; including MB applications for current accounts management, stock-based market m-applications, mobile-loyalty applications and others used by customers as a security token device (mainly for authentication purposes and to generate a onetime password for transaction completion). Other banks have provided unique MB applications features such as a local search feature, which allows customers to search for the nearest bank branch or ATM machine via the GPS mobile system. This feature is helpful for customers who are looking for banking services in an unknown geographical area. A mobile banking director pointed out that the bank's MB application displays the status of the bank working ATMs to save customers' time and effort. Another mobile banking manager

expressed that MB applications users can search for a local branch using 'augmented reality' technology. In addition, the bank offers customers access to money through withdrawal from AMT using the mobile.

- Further, five banks examined in this study revealed that they enabled their customers to withdraw cash using only their bank m-applications service. The service has a certain cash limit which allows customers to access cash with a few taps of their smartphone. It works by allowing customers to generate a code from the MB application and tap it into an ATM to withdraw cash instantly, without the need for an ATM card. This code also can be sent to a family-member or a friend to give them access to money. Service suppliers pointed out that this service makes it possible to send and withdraw cash 24/7 from anywhere in Saudi Arabia. As interviewees explained, the new service is safe and offers the same security yardsticks as applied in other e-banking services such as Internet Banking. MB application cash withdrawal can be a value-added service for customers. It creates value for consumers in situations where they have forgotten their ATM cards or had them stolen, or when they want to allow a family member to access cash urgently. It makes banking services via m-applications more convenient and provides solutions to solve emergency cash difficulties.

Therefore, building and sustaining branding strategy could develop product differentiation. Also, it reflects potential for developing customer relationships through affecting attitude towards the brand (Keller, 2003; Aaker, 1991). M-applications offer an opportunity to banking service suppliers for brand development. In the financial sector, it has been suggested that a more distinctive brand image is essential to create a sustainable competitive advantage (Melewar and Bains, 2002).

9.2.2 Positioning Strategy

The findings from banks' managers indicated that MB-applications are positioned mainly by target segment. The discussion around MB services revealed especially from mobile banking channel managers that positioning strategy has a key role in shaping banks' ability to create and deliver MB services value. Segment-based positioning is one strategy adopted by Saudi banks. It was understood from interviewees that online banking and certainly the young and more technology-savvy consumers are the target segment of MB. Identifying the appropriate target segment framework can help retail banks to develop needs-based products and services. Positioning is related to the perception the bank wants to promote in the minds of current and

potential customers. Kotler (2003) conceptualizes positioning as *''the act of designing a firm's offering and image to occupy a distinctive place in the mind of the target market with concomitant effect of creating a customer-focused value proposition that would facilitate patronage''*. In the banking industry, Zineldin (1996) defines positioning as *''how a bank wishes to be seen in a given marketplace, what its values are, and its overall image. A bank can occupy a position as a large bank, a global bank, a friendly bank, a niche bank, or an efficient bank''*. The customer-needs positioning approach presupposes that banks target their business towards one customer segment by satisfying their needs and wants. Using this strategy often requires the bank to analyse and consider segment profitability, market opportunity and its competitors (Zineldin, 1996).

Ennew and Waite (2007) explain that the core of positioning is bank's competitive advantage in terms of how it differentiates itself from the competition and how it delivers value to its customers. Accordingly, positioning is about how a firm wants itself to be perceived by its target segment. Target segment positioning of a bank includes targeting a set of consumers with similar needs and expectations of the bank which can be classified according to demographic variables (e.g. age, gender, education level), consumption behaviour (e.g. technology use, lifestyle), or on a psychographic basis (e.g. self-concept or social class) (Harrison, 2000). Banks that adopt this strategy develop a needs-based approach to their current customers which enables greater success in tailoring preferred products and services in the mobile devices domain. Thus, commercial banks maximize their investments in MB applications by focusing on the unique requirements of a customer segment and creating a strategic plan to deliver long-term customer retention.

The other target segment positioning explored in Saudi banks is positioning by 'use occasion''. It is a strategy which is mainly adopted by nascent banks to emphasize the MB applications usage situations. Those banks position themselves as 'Smart Apps = Smart Banking'. To this end, they developed their MB applications with special user interfaces, that allow non-bank customers to explore MB application features from the user interface without the need to log on. This would support potential smartphone users to shift to the bank if they were interested in MB applications features. Positioning by usage situations helps attract sufficient consumers when a bank aims to expand its market by creating and occupying other usage positions (Farquhar and Meidan, 2010).

9.2.3 Business Vision

CRM technology serves better customer relationship and builds up mutual benefits for customer and suppliers. It has a key role in delivering and shaping the value of e-banking services (Bitner *et al*., 2000). Managing integrated channels depends on the bank's ability to deliver the same level of quality across those service encounters available (Payne and Frow, 2005). In a bid to catch up with local and foreign branches opening in Saudi banking, Saudi banks have invested heavily in IT to improve the quality of service delivery and reduce cost. This involves delivering e-banking services through ATM, online and mobile, point of sale (POS) and call centre channels. The objective is to offer alternative banking options and greater convenience to customers. Also, Saudi banks are influenced by changes in the Saudi Arabia economy, innovations in banking products and services. Those factors among others encourage banks to develop IT capabilities. Accordingly, IT can improve bank performance by cost reduction. For instance, MB services facilitate and speed up customer service delivery and provide value-added transactions such as balance inquiry.

Furey's (1991) findings indicated that IT could help enhancing customer services by increasing convenience, collecting service performance information for management use and offering extra services. IT service delivery through launching new products and services in various channels has an important role in satisfying customers (Heskett *et al*., 1997).CRM information technology centralized on achieving perspective by implementing technological tools. These initiatives help suppliers to achieve better communication and more effective personalization of their services with customers (Boulding *et al*, 2005). Most CRM tools deliver a one-to-one, direct relationship with the service supplier, which provides vital information at every point in the interface with the customer. The application of IT is to focus on one-to-one relationship with customers that integrates database knowledge to enhance customer retention and business growth (Peppers and Rogers, 2004). Accordingly, CRM is associated with RM strategies by using IT to develop profitable and long-term relationships with customers (Payne and Frow, 2005).

Lindgreen and Antioco (2005) found that banking service suppliers use CRM and IT technology as a means to attract, develop and retain customers. Accordingly, CRM enables service suppliers to become more familiar with their customers. This allows better understanding and enables suppliers to interact, respond and communicate effectively with customers (Chen and Popovich, 2003). Further, CRM over the mobile medium helps

companies to (1) personalize content and services, (2) track consumers or users across media and over time, (3) provide content and service at the point of need, and (4) provide content with highly engaging characteristics (Kannan *et al*., 2001). In addition, Anckar and D'Incau's (2002) findings presented that consumers are more interested in services with high mobile values which support urgent and spontaneous needs such as stock quotations and SMS. Mobile mediums improve customer service and quality due to the convenience of performing transactions anywhere, since they are connected to the Internet (Laukkanen, 2007; Pura, 2005). Awasthi and Sangle (2013) point out that MB services could foster stronger relationships between service supplier and their clients. Liljander *et al*.'s (2007) findings showed that consumers were most interested in utility mobile services which seem promising for m-CRM loyalty programmes.

9.2.4 Customer-orientation Culture

Customer-centric marketing can be considered as a cornerstone in building profitable relationships. Saudi banks have created a close relationship with customers by understanding and anticipating their needs. This is reflected in tailored products and services that suit different segments. Banks have realized that, due to the Saudi banking industry's competitiveness, customer centricity is an integral source of their profitability. Osarenkhoe and Bennani (2007: 148) point out that a customer focused strategy is a core component for delivering value to customers. The authors state: *''Customer-focused strategy implies that for long term profitability and survival, firms must be customer-focused, market-driven, global in scope and flexible in their ability to deliver superior value to customers''.*

Market-driven marketing treats customers as the core of the marketing process, which responds to and meets customers' needs. As was explained by banks' directors, developing new products and services is to sustain the enduring faith of customers first and the aim is to attract and meet their evolving needs. It was understood from a head of Internet and Mobile banking channels that customer contact employees are offered frequent development training. This implies that the bank cares for delivering superior value and service to its customers. The bank has shifted its operating paradigm from a functional orientation to a customer orientation. It is a part of the bank's brand value to offer purely Islamic banking services that meet modern needs. The outcome was superior results through achieving higher levels of customer satisfaction. Satisfied customers are less price sensitive, buy additional products, are less influenced by competitors and stay loyal longer (Zineldin, 2000).

In previous research, it was found that market-oriented firms perform better than those that are less market-oriented. They focus on adapting their products and services to the needs and expectations of their customers, in contrast to those who are product oriented and focus on developing a product or service that is then marketed and hopefully sold (Grönroos, 2006). By meeting customers' needs, service quality is concerned with meeting customers' needs satisfactorily by matching their expectations. In the banking industry, service quality implies consistently anticipating and satisfying customers' needs and expectations (Howcroft *et al*., 2002). Customers form a perception of service quality according to the service performance they experience during use. Therefore, service quality depends on customers' perceptions of the service. However, Mechinda and Patterson (2011) state that for service employees to display customer-oriented behaviour, organizations must develop a climate for service in the work (e.g. providing staff with modern tools and technology, customer satisfaction tracking and complaint management systems, inspiring service leadership, and an appropriate reward system).

9.2.5 Bank's Internal Environment

Banks' managers emphasized the role of employees as partners in delivering customer value. According to Payne and Holt (2001) employee recruiting practices contribute highly in delivering customer value and enhancing customer relationship quality. Peppers and Rogers (2004) support this view by asserting that hiring the most effective employees is crucial when it comes to delivering customer value building products and services. Employees' satisfaction and customer satisfaction are truly interconnected (Lovelock and Wirtz, 2007). It was understood from banks' managers that the role of employment schemes and managing employees' relationships in creating customer value. Therefore, meeting organization employees' needs and wants is vital for gaining external customers' satisfaction and loyalty. In literature, it is argued that internal marketing is one of the key approaches to assist organizations in this direction (Hogg and Carter, 2000). The underpinning assumption is that employees are considered as a valuable asset in keeping up with competition. In this regard, employees represent an internal market within an organization (Papasolomou-Doukakis, 2002). Thus, employees need to be trained, rewarded and motivated in order to meet external customers' needs and wants (Dukakis and Kitchen, 2004).

The findings of this research revealed different practices and motivations for banks' employees. One bank director discussed how the bank's internal management continuously provide

privileges that motivate employees. The bank offers lucrative salaries, especially for those who have previous banking experience. In addition, employees at different levels and grades are enrolled in a safety and health programme. As was understood from the interviewee, the bank offers the employees involved a financial incentive. This depends on managerial aspects including monthly department job appraisal. At another bank, training and private courses are delivered to the employees. The bank's interviewee concluded that English Language courses are offered on an ongoing basis with the participation of the bank's staff. This is applied according to the plans and programmes adopted in each department.

In addition, the bank provides a range of facilities and banking services in order to help employees find financial solutions. The director pointed out that the bank's business vision corroborates the role of employees' partnership in success and progress. This highlights the role of the bank's employees as important participants in the formulation of the business values and image offered to customers. Babakus *et al*. (2003) point out that employees' empowerment, rewards and training are important constructs to management's commitment to service quality. Also, they mentioned that training and development initiatives have a key role to empower employees for better service quality. Thus, Saudi banks improve the working environment through improving staff. In a competitive industry such as the banking sector, banks aim to create satisfied employees who feel that they are an integral part of the bank. In addition, the bank's business vision involves the employees in training schemes to deliver the bank's values and mission to external customers.

9.3 How do consumers use m-applications services in general and MB in particular and how does this affect their value creation?

In line with the findings, this study has highlighted the importance of adopting a consumer-centric approach when designing mobile marketing strategies. The focus group users expressed different actual use situations where they found m-applications service valuable. The developed m-applications value framework illustrates how the consumption values are linked to value in-use perceptions. It explored the nature of situation use and consumers' preferences of value perceptions for m-applications services content itself. It provides understanding of consumers' behaviour and suggests a new way of grouping perceived value dimensions. As stated, value is postulated as an important factor in predicting certain consumer behaviours, and as a result, it has attracted a considerable number of marketing scholars to examine its nature and implications (Andrews *et al*., 2012; Kleijnen *et al*., 2007; Woodruff, 1997). The

findings of this study viewed value in a broader conceptualization which comprised various heterogeneous sub-dimensions. They support and extend relevant research (Pihlström and Brush (2008) and Pura (2005) which locates value in consumer-related contextual situations through identifying consumption situations. The analytical framework provides insights into how consumption situations can be categorized in terms of consumers' everyday use of mobile phones.

Additionally, the findings suggested that value is determined and perceived by customers when they buy or use the service offering. Therefore, value is realized when the service is consumed; users become an active co-creating part of value creation process (Vargo and Lusch, 2004). Vargo and Lusch (2004a) stress the key role of the customer in value creation. A value creation constellation means collaborating with and learning from customers as well as being adaptive to their individual and dynamic needs. A firm can only offer value propositions; the customer must determine value and participate in creating it via the consumption experience (Figure 45). Value is not realized until customers take part in the activities that compose the service and make use of that service.

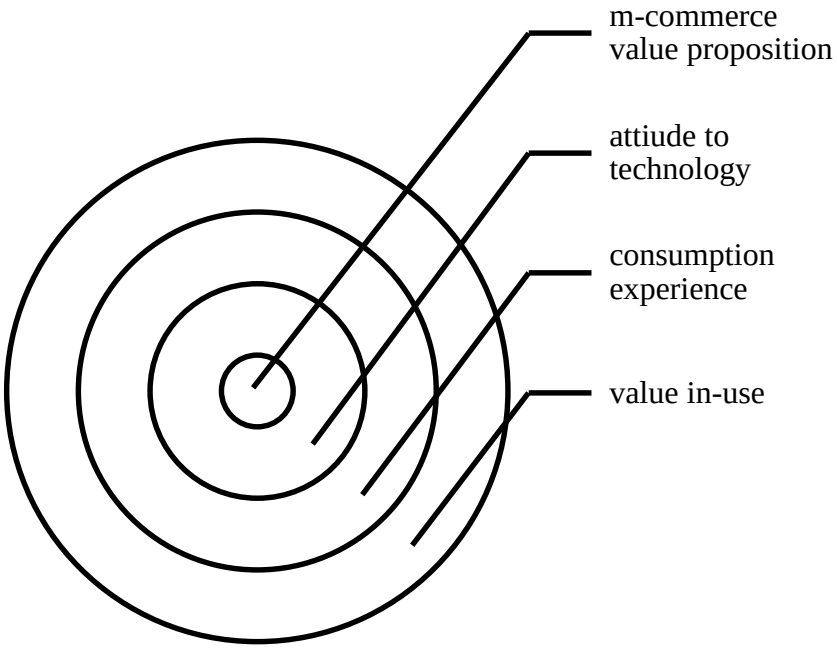


Figure 45 An expository of the mobile services consumption process linked to value in-use *(source: Author).*

Logically, value in-use is created by the consumers and it emerges throughout the time of consumption. Therefore, the level of value perceived through use is reflected by consumers'

contexts (e.g. social, temporal and spatial). As Grönroos and Voima (2011) point out, usage can be a physical, virtual or mental process or it can be mere possession. In this study, use of TCV helped to examine how perceived value is located in possession. As explained by the interviewees, mobile phones are considered as personal belongings and certain values drove the adoption.

Value in-use is realized and evaluated during the time of consumption experience. Vargo and Lusch (2004) describe that value in-use is most often conceptulized as a cognitive assessment. They further elaburate that value in-use evalution is subjective to every single customer since it is co-created with that customer. In a similar vein, Michel *et al*. (2008: 55) point out that value in-use is something perceived and defined by the cutomers when using a good or serivce.

The value concept provides a broad understanding of behavioural determinants which can include subjective and affective assessment of service use and consumption. It highlights the role of the mobile mediums value perceptions and features in driving consumers' choice. Value consumption theory (Sheth *et al*, 1991) investigates technology characteristics and focuses on the value that it can bring to its users. It demonstrates the instrumental and hedonic value drivers of new technology use.

In m-commerce services, emotional value is gained particularly through hedonic aspects of having enjoyment while using the service (Nysveen *et al*., 2005; Pura, 2005). Furthermore, mobile services usually arouse users' emotions through sending and receiving emotive images or icons. Thus, emotional value is important, particularly in m-applications services, because they have more technical features (e.g. Javascript) for entertainment use. However, Laukkanen (2006) points out that emotional aspect is presented in the MB services context because customers enjoy the service while accomplishing a task.

Previously, perceived hedonic motivation has been examined in explaining technology use represented by fun and enjoyment (Chemingui and lallouna, 2013; Li *et al*., 2012; Liu and Li, 2011; Nysveen *et al*, 2005). Customers can experience the fun of using mobile services as a way of expressing feelings. Based on an analysis of mobile services, Nysveen *et al*. (2005) found that perceived enjoyment affects consumers' intention to use mobile services as well as their attitude towards the actual users. Hanudin *et al*. (2012) found that perceived enjoyment has a strong relationship with mobile banking use. They demonstrated that "mobile phone is

viewed as an entertainment gadget to some individuals; therefore enjoyment can play an essential role in expounding mobile banking use" (Hanudin *et al*. 2012: 10).

In addition, perceived playfulness, a concept related to perceived enjoyment, has been found to explain the adoption of mobile advanced services. Cheong and Park's (2005) findings reported that perceived playfulness helps predict consumers' intention to use a mobile Internet service. Furthermore, Wang and Lin's (2012) research concludes that perceived playfulness of mobile added-services mediates the influence of perceived ease-of-ease on mobile phone subscribers' intention to adopt the services. However, perceived playfulness may have less influence regarding the use of transactional mobile Internet services (Fang *et al*., 2006). Similarly, Li *et al*. (2012) found that hedonic factors had a positive effect on mobile consumption experience. Thus, when consumers feel that using m-banking can be enjoyable and effort free, this encourages them to express a positive attitude towards using this service.

Perceived social value was represented by self-image and social acceptance of mobile services. Image refers to the degree to which the adoption and the use of an innovation is perceived by users to enhance their image or status in their social system (Rogers, 1995). Sweeney and Soutar (2001) define social value as the utility derived from the product's ability to enhance social self-concept. Social value indicates that the use of mobile services is a means to express personality, status and image in line with consumer behaviour theory (Evans *et al*., 2009). Thus, social value mostly derives from product or service use and is shared within a social system (Sheth *et al*., 1991).

Earlier research supports findings generated from this study. Hong and Tam (2006) investigated mobile data services adoption. Their study found that perceived usefulness, perceived ease of use, perceived cost, perceived enjoyment and a need for uniqueness affect users' behavioural intention. An addition, Kleijnen *et al*. (2005) found that self-image has a significant effect on customer attitudes and adoption decision regarding service innovations (mobile services).

An innovation's value to consumers is affected by its perceived relative advantage, the extent to which it offers benefits superior to those of existing products (Rogers, 1995). Image is included as an important aspect of relative advantage (Rogers, 1995). Lee *et al*. (2003) explain that the desire to gain social status is a critical motivation for some innovations. Consumers of

particular m-applications services may be cognizant of their social image in their social networks. Many adopt mobile services because they believe that these services could help them to create, alter or preserve a positive image and social status for themselves within their social networks rather than for addressing a necessity (Rao and Troshani, 2007).

Epistemic value is concerned with a desire for knowledge, whether this be motivated by intellectual curiosity or the seeking of novelty (Sánchez-Fernández and Iniesta-Bonillo, 2007). Consumers' purchase is likely to be influenced by the curiosity of new product (Sheth *et al*., 1991). New technology is often purchased without a real functional need and, therefore, may be used rarely after the novelty effect wears out (Pura, 2005). Earlier research has explored that novelty-seeking behaviour is assumed to trigger new website use (Richard, 2005). Novelty-seeking has been proposed as evidence of consumers' innate innovativeness (Roehrich, 2004). Further, Roehrich (2004) argues that inherent novelty seeking is conceptually indistinguishable from the willingness to adopt new products. Novelty-seeking is translated into a series of activities which aimed at (1) finding new information (2) adopting a new product (3) using a product in a new way, or knowing all the different uses of a specific product (Roehrich, 2004). However, Sheth *et al*. (1991) demonstrate that consumers who are motivated by epistemic value often return to their previous consumption habits after satisfying their need for change.

Conditional value exists in a specific context and is derived from the interaction between the mobile service and user. It refers to circumstances that impact service choice (Sheth *et al.*, 1991). Hence, conditional value is related to satisfying the customer's needs in a particular consumption situation. Conditional value situation use is determined by temporary factors. These factors can be grouped into 'where', 'when' and 'use circumstances'. The 'where' factor is the location of the customer, i.e. mobile, as s/he can use services while moving from one place to another. The 'when' refers to the time of use, which is flexible for mobile services. Basically, mobile services are designed to support critical-need situations when consumers are on the move and there is not enough time to search for alternative ways to use services. Use circumstances act as triggers for mobile services consumption.

They reflects the context where consumers decide to choose a particular service or product. In previous research, use circumstances are depicted under situational factors (Verkasalo and Hämmäinen, 2007; Mallat *et al*., 2006). Situational use factors arise at the time of purchasing which could not be predicted in advance. In mobile services, use situation influences on

behaviour where the need to use services via mobile devices may occur spontaneously. Using mobile services is bounded by temporal, spatial and contextual elements such as time pressure on choice behaviour (Mallat *et al*., 2006). In addition, Pura and Gummerus (2007) explain that use situation and its influences on mobile services use have been conceptualized as including specific circumstantial conditions such as availability of other alternatives and time pressure. Mallat *et al*. (2006) found that use conditions have significant influence on determining intentions to use mobile ticketing services and mediate the effects of usefulness and mobility (temporality and spatiality dimensions) on use intentions.

Functional value represents value derived from effective task fulfilment (Sheth *et al*., 1991). Emergent mobile devices (i.e. tablets) work on a mobile operating system that determines its functionality and features such as touch screen, keypads, mobile browser, synchronization with applications, e-mail, GPS navigation, high-speed data access via Wi-Fi and more (Khana, 2009). These functionalities of mobile devices and add-on applications have various technological characteristics which change mobile service use and consumption. M-applications' functional benefits are reflected by physical performance, utilitarian benefits and device capacity, which are derived from concrete and tangible features that may be experienced in service usage.

Results of MB applications users' focus groups revealed that functional value is represented by the easier control of banking services. As indicated by previous studies, ease of use perception has a critical role in new technology adoption (Jeong and Yoon, 2013; Hanafizadeh *et al*., 2012; Kumar *et al*., 2012; Cheah *et al*., 2011; Daud *et al*., 2011; Cruz *et al*., 2010; Puschel *et al*., 2010; Riquelme *et al*., 2010; Wu and Wang; 2005). The perceived ease of use represents one of the TAM variables in determining new technology acceptance.

As described by Davis (1989) perceived ease of use refers to the degree to which an individual believes that using a particular system would be free of effort. In mobile settings, ease of use represents the degree of freedom associated with the use of mobile service. This is affected by m-applications' user-friendly interface to improve customer experience; providing clear and visible steps, suitable content and graphic layout, help functions, clear commands, symbols and meaningful error messages (Rao and Troshani, 2007). However, due to the constraints of the mobile medium such as small screen or virtual keypads and inconvenient input mechanism, users may be reluctant to adopt mobile based services if the service provider does not present a high quality user interface (Zhou, 2011a; Laukkanen, 2007a).

Convenience has been found as a main trigger of mobile services acceptance (Kim *et al*., 2010; Shankar and Balasubramanian, 2009; Kleijnen *et al*., 2005; Lee *et al*., 2003; Anckar and D'Incau, 2002). Convenience has several facets. In m-banking, it reflects the ubiquity of reaching banking services using a mobile medium (Dewan and Dewan, 2010; Riquelme and Rios 2010; Shammot and Al-Shaikh, 2008; Amin *et al*., 2007; Laukkanen, 2007a; Sulaiman *et al*., 2007; Tiwari and Buse, 2006; Luarn and Lin, 2005; Mallat *et al*., 2004; Barnes and Corbitt, 2003).

Users can spend less time on task fulfilment to gain more use of service utility. In the electronic service context, consumers find anytime and anywhere accessibility a value of e-service value (Heinonen, 2006). Feature-rich mobile devices such as 3G wireless communication technology have enabled consumers to increase the perceived usefulness of mobile service (Suki, 2011). Perceived usefulness of mobile services can have different interpretations depending on user perspectives (Pagani, 2004). Thus, it can relate to saving time, cost and efforts. Ideally, mobile wireless communication technology (e.g. 4G) offers higher data transmissions which increases mobile services utility usage time. Du *et al*. (2012) found positive significant of perceived usefulness for 3G mobile value-added services.

9.4 What are the main obstacles that discourage banks' clients from perceiving the value of mobile banking services?

The barriers explored by non-users of MB applications technology are discussed in relation to reviewed literature. Barriers mentioned by participants are perceived as a sacrifice component of the perceived value of MB applications. They prevent bank clients from using the services offered in the m-applications. These barriers are presented and compared with relevant studies.

Among the barriers mentioned by participants was lack of relative advantage. In this thesis, lack of relative advantage equals low perceived value, which means no significant benefits are apparent from use of MB applications services; therefore, customers prefer other ways of banking. According to Rogers (1995) relative advantage results in increased efficacy, economic benefits and enhanced status. However, the findings of this study are consistent with Cruz *et al.* (2010) who found that low perception of relative advantage and complexity of mobile banking were revealed as the main reasons behind reluctance to use the offered service. On the other hand, Al-Jabri and Sohail (2012) found that relative advantage has a direct positive

influence on MB adoption. This explains that consumers adopt a mobile service when they perceive it as a useful and convenient way of managing their finances efficiently and effectively.

Consumers are likely to uncover MB applications' benefits due to their past experience with technology (Lee *et al*., 2003). Research across consumer behaviour in technology adoption literature has noted the effect of experience with a technology on perceptions and attitudes towards that technology. Experience with a particular product or service is expressed through an individual's self-efficacy. Consumers with previous experience with mobile services may have developed a high level of perceived self-efficacy (Wessels and Drennan, 2010). In other words, non-users of MB applications perceive themselves as less competent in performing a particular task of mobile service; hence, they resist engaging in this type of behaviour.

The online banking channel is still for some customers the main channel for fulfilling banking services needs. Laukkanen (2007) via qualitative in-depth interviews, compared customers' value perceptions in internet and mobile banking; outcomes revealed that consumers preferred using online banking because it is home access, location-free and convenient. The mobile channel was indicated to have less display and the small screen with a small amount of information display was said to make mobiles very difficult to use. This was perceived as inconvenient and to increase the feeling of uncertainty in service consumption. Similarly, Pousttchi and Schurig (2004) argue that the data input mechanism needs to be simplified via mobile channel. In mobile settings, users of mobile services usually need to enter a large amount of information via a small screen size and small keyboard, which make it difficult to use.

Online banking allows banks to interact more effectively with their customers through the delivery of anytime and anywhere services. Online customers believed that it is more effective than other e-banking mediums. It is more convenient than mobile in the ability to set a schedule for payments, add new payees, open new accounts and apply for loans and other banking features. With a few exceptions, MB applications offer the same basic features as browsing-based online banking (**see chapter six**). In particular, mobile banking emphasizes "transactional" features, such as bill payments, cheque deposits (where available, this feature allows a customer to take a picture of a cheque to be deposited as explained in chapter 6, mobile person-to-person payments, and balance checks.

The non-adoption behaviour of customers is related to the lack of perceived need for MB applications service. In literature, MB users' characteristics are distinguished and identified.
A considerable amount of literature has been published on the MB services segment. Young customers are more predisposed to use mobile services than other Internet users due to the low cost entertainment, which fits with their lifestyle (.Koenig-Lewis *et al*., 2010). This might be consistent with the finding of Bigne *et al.* (2005) who found that younger consumers prefer to adopt m-commerce shopping more than users of the Internet channel. Similarly, Laukkanen (2007a) argues that young customers with long Internet banking usage experience influence m-banking adoption. The high penetration of smart-devices among young consumers is found to be the critical factor which makes m-banking use more popular among this age group (Sulaiman *et al*., 2007). The situation is similar in Saudi Arabia. Most Saudi users of e-banking services are considered relatively young due to the population of the country, which is considered as young (Baker *et al*., 2007). Therefore, the age variable could be important in predicting customer adoption of new technology. In contrast, Zhu *et al.* (2002) found that older consumers prefer to use face-to-face contact to conduct their banking services for more personal privacy, which cannot be done through e-channels. However, there is a common belief that consumer acceptance is the most significant barrier to the development of m-banking (Koenig-Lewis *et al*., 2010). Hence, it is fundamental to understand what prevents consumers from m-banking adoption.

Security and privacy are the most important issues regarding how safe it is to use m-applications for banking. Due to the constraints of mobile terminals such as small screen display, inconvenient input mechanism and limited Internet bandwidth, customers expressed reluctance to adopt mobile services (Zhou, 2011). Security refers to customers' belief in yardsticks applied by service providers to protect data and information via the mobile, while privacy refers to data protection while using self-service channels. These issues are common in consumer new technology adoption literature. According to Luarn and Lin (2005) security is one of the greatest concerns in the adoption of mobile banking. In contrast, some studies found that security issues are not perceived by customers to be a major barrier in e-banking transactions (Laukkanen and Lauronen, 2005; Suoranta, 2003).

However, in this study perceived complexity of mobile operating system was presented as a barrier to use of MB applications services. According to Rogers (1995) complexity is the degree to which an innovation is perceived as relatively difficult to use or understand. Nor and

Pearson (2007) reported that complexity implies use of an innovation by exercising mental or physical effort. In MB applications, users face complexity due to the input mechanism and limited bandwidth which make banking on the mobile terminal a cumbersome experience. This complexity requires additional efforts and greater implementation in terms of technical and personal skills to amplify its chance of acceptance. Banking using mobile requires using virtual keyboards, small screen display and sporadic Internet connection would make MB applications more complex to use.

Moreover, Luarn and Lin (2005) found that perceived financial cost is a strong factor to prevent users' MB adoption, while it was not significant in Jeong and Yoon's (2013) study. Similarly, Laukkanen and Lauronen (2005) report that perceived complexity impedes consumers from using m-banking, although it was found not to be a significant factor to predict MB acceptance in other studies (Akturan and Tezcan, 2010; Al-Jabri and Sohail, 2012). Similarly, Poon (2007) investigated the determinants of users' adoption of e-banking. Ten factors were examined, namely; convenience of usage, accessibility, features availability, bank management and image, security, privacy, design, speed and fees. The findings indicated that all the factors identified are significant with respect to the user's adoption of e-banking. Security and privacy are the major sources of dissatisfaction. Furthermore, privacy, security and convenience factors play an important role in determining the users' acceptance of e-banking services with respect to different segments of age group, education level and income level.

9.5 Demographic Characteristics' Influence on MB Services Use

In previous research, it is suggested that consumers' demographic characteristics have direct and indirect effect on the innovation adoption decision. The findings of this study support such an idea, as it indicated that some features play a role in determining whether individuals use MB as a bank delivery channels or choose an alternative.

This study found differences between MB services users and non-users in relation to their demographic characteristics. These findings harmonise with those of Laforet and Li (2005), who found that users of MB services are predominantly males, not necessarily young and highly educated. This is not consistent with Howcroft *et al*. (2002) who profiled typical e-banking customers as young, affluent and highly educated. However, other studies found young age customers are more predisposed to use mobile services than other Internet users due to the low cost entertainment, which fits with their lifestyle (Koenig-Lewis *et al*., 2010). Investigating

gender difference in selecting banking channels, Srivatsa and Srinivasan (2007) found that females prioritize channel convenience and savings, whereas males prefer safety and convenience e-banking. Looking at values sought by consumer groups, Yang and Lee (2010) found that the task-oriented utilitarian value of mobile data services can be classified as preferred by males and the communicative and hedonic aspect of mobile data services can be classified as preferred by females.

In this study, the majority of MB applications services users belonged to the 26-30 and 31-35 age groups. This is similar to Laukkanen and Pasanen (2008) who found that a typical Finnish mobile banking user is more likely to be middle-aged (30 years old). Also, this is consistent with previous anticipation about the spread of adoption of mobile banking amongst young customers as an outcome of their closer relationship with the technology (Cruz *et al*., 2010; Bigne *et al.*, 2005). Laukkanen (2007) found that young customers with long Internet banking usage experience influence the m-banking adoption. In contrast, Zhu *et al*. (2002) found that older consumers prefer to have face-to-face contact to conduct their banking services for more personal privacy, which cannot be done through e-channels. Indeed, earlier studies have shown that mature customers are more reluctant to use mobile banking services than other customer segments (Laukkanen *et al*., 2007; Mattila *et al*., 2003).

Income is another important factor that affects consumer behaviour. Consumers with high income might need frequent access to e-banking for financial management. Okazaki (2004) found that demographic characterises such as gender, age, income, marital status and family structure affect m-commerce user acceptance in Japan. This is not to neglect the effects of behavioural intention and acceptance towards MB services. Peter and Olson (2002) pointed out that people at different income levels tend to have quite different values, behaviours and lifestyles. This is congruent with Mattila *et al.* (2003) and Karjaluoto *et al.* (2002), who found household income and education are main drivers to Internet banking services. Consumers with higher levels of education may have better understanding and ability to use self-service technologies (Meuter *et al.*, 2005). In addition, high income could be a motivation to use e-banking services for time-saving and convenience (Meuter *et al*., 2005).

Consumers might not prefer using MB services due to their lower-level jobs. Karjaluoto *et al*. (2002) found that people in high-level jobs are more likely to adopt Internet banking. In Saudi Arabia, most private sector employees have strict work hours, which is not the situation in the

government sector. Greater time-flexibility makes it easier for government employees to visit banks during opening hours to manage their banking and financial issues.

9.6 Conclusion

This chapter presented findings integrated from supplier and demand sides of MB services. It discussed suppliers' perspectives regarding factors shaping MB services delivery in the Saudi Arabian environment. These factors were mainly drawn from the process of coding data resulting from semi-structured interviews with bank officials. In general, Saudi commercial banks' ability to create and add value to MB services is highlighted through a confluence of factors. Factors discussed in this chapter from the supplier side indicate that creating and delivering value of MB services is a shared responsibility among different employees and departments at the bank. In particular, banks' understand the potential of mobile technology in providing better value to customers. MB services are envisioned as a means of decreasing costs, acquiring new customers and increasing current customers' relationship. However, factors mentioned implied that improving the creation and delivery of MB services' value is a hard process and sometimes requires more technological and human efforts, which depend on banks' capabilities.

Another important feature of the discussion chapter was value perception in service delivery and adoption. Based on the research conducted as part of this thesis, the findings of which are presented in Chapter 7, this chapter provided better understanding of new emergent and growing service channel (m-applications). Consumers adopted MB applications services because they provide them with superior value to other options. In addition, consumers' more permanent value perceptions and preferences are related to the m-applications service content itself. However, perceived value in-use might be negative value that a customer experiences when using the service. This is related mainly to technological and usability barriers to MB services. Also, consumers may have less experience with technological services or less knowledge about their features and benefits. Perceived risks represented by MB services security and privacy are still some non-users major concerns. Therefore, to encourage non-users to commence using MB services, suppliers should alleviate such concerns and need to have practical safeguards provided for MB transactions.

CHAPTER TEN: CONCLUSION, RECOMMENDATIONS AND RESEARCH CONTRIBUTION

Table 35 Current chapter position in the research.

Chapter One	Introduction
Chapter Two	Research context: Saudi banking sector overview and MB services
Chapter Three	Role of Customer Relationship Management (CRM) in value creation and delivery
Chapter Four	An overview of customer buying behaviour in mobile services context
Chapter Five	Research methodology and data collection methods design
Chapter Six	First phase data anlysis: suppliers' persepctives
Chapter Seven	Second phase data analysis: part one
Chapter Eight	Second phase data anlysis: part two
Chapter Nine	Discussion and interpretations of findings
Chapter Ten	Conclusion, recommendations and research contribution

10.1 Introduction

The aim of this final chapter is to introduce the main conclusions, contributions and limitations of the current study. In addition, it provides some suggestions for further research in the mobile services sector. The core argument of this research is that emerging m-applications services offer unprecedented opportunity for companies to collaborate in value co-creation with consumers (Payne *et al*. 2008). It helps to offer better understanding of value creation management in buyer and seller relationship in mobile services taking MB services as a case study. While prior research on value co-creation in service dominant logic (S-d logic) serves as a foundation for this study, it does not provide adequate guidance on how buyer and seller collaborate in the co-creation process in mobile services. Therefore, the researcher has adopted a qualitative subjective approach to identify the buyer-seller value creation process. This research design was based on an interpretivst subjective research position (Figure 46). Because the researcher was aiming to look at how and what factors constitute value creation, from both demand and supplier sides, it was vital to explore dyadic value creation more specifically how suppliers can seek to manage the co-creation of value and how certain circumstances might be the impetus for customers' participation in value perception and creation. Therefore, an

interpretivst approach was adopted to grasp how each party formulated their understanding of research phenomena.

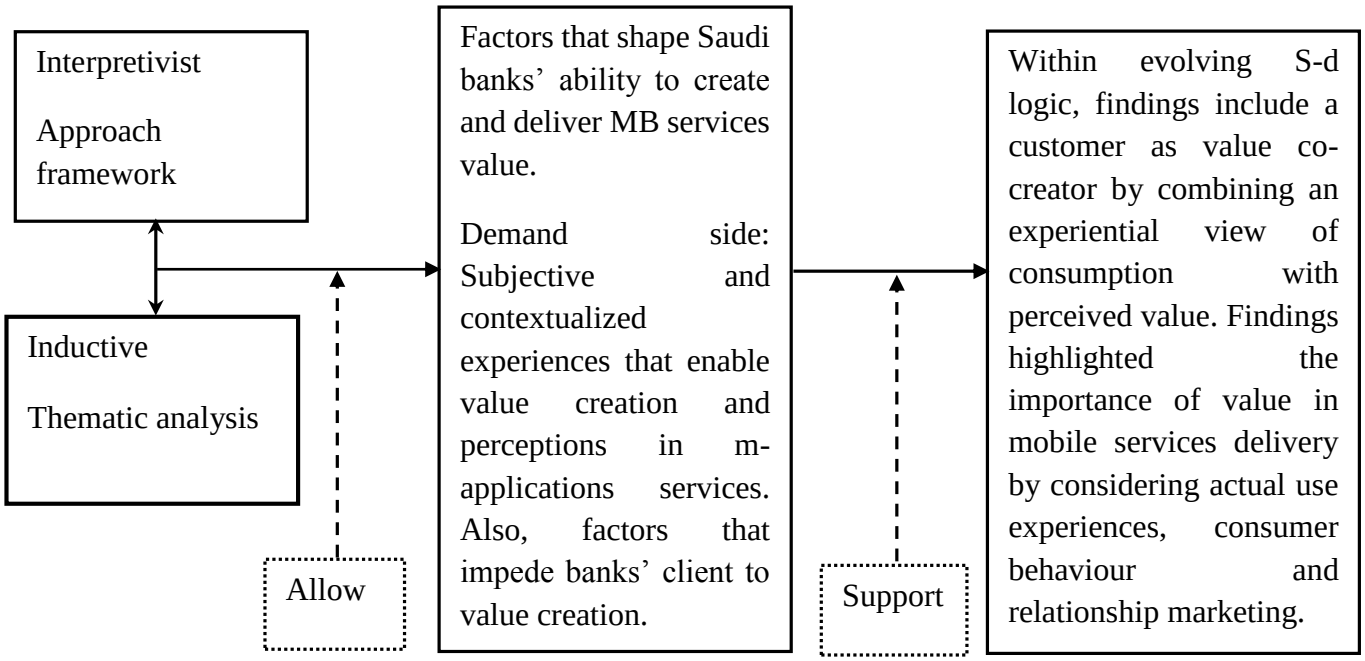


Figure 46 Linking the philosophical and analytical framework with the research claim *(source: Author).*

10.2 Research Contribution

The study contributions are presented and discussed in this section. In order to consider the contribution of academic research in the management discipline, Corley and Gioia (2011) distinguished between practical knowledge that resides in the empirical domain and theoretical knowledge. They suggest that there are two important considerations when evaluating contribution; the originality and usefulness of work contributions. This study contribution provides incremental and practical insights to academic and marketing practitioners (Figure 47). The author asserts that this study is different from the early studies which examine MB applications services from supply and demand sides in the marketing discipline at the time of publication. Therefore, the contributions are discussed from three perspectives: theoretical, methodological and practical (managerial). With regard to this, it is suitable at this point to have some discussion about the major contributions of this study and how the research objectives were fulfilled and the findings addressed the research gaps pinpointed in chapter three.

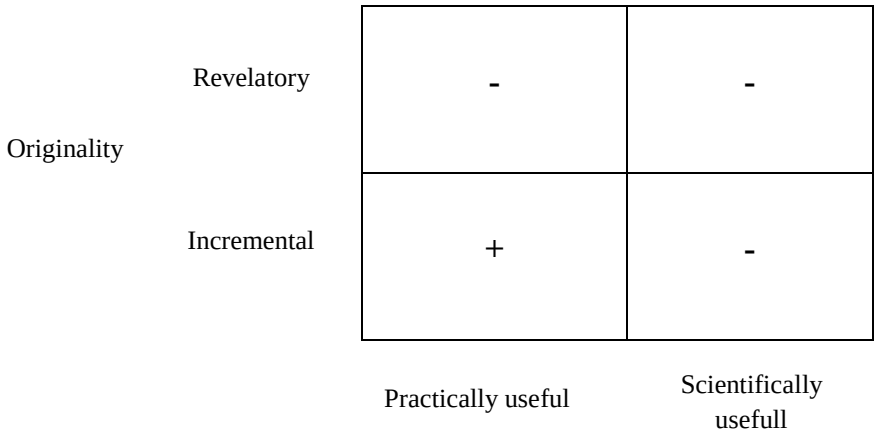


Figure 47 Current dimensions for theoretical contribution *(source: Corley and Gioia, 2011: 15).*

10.3 Theoretical Contribution

The findings of this study extend the literature of value co-creation theory in the business. This study attemps to present findings that helps banking service suppliers to identify the source of value for customers. Value co-creation is associated with company's competitive advantage tdevelop unique and personal services. It enables customers to get the right combination of products beneftis. It has been found that succesul value co-creation requires interations between the bank and the customers with the resource integration. Also, the customers have become more informed and involved in the ceation and determination of the value. Next, the ways in which this study provides theoretical contributions to the literature are discussed.

Contribution to the mobile customer relationship management (m-CRM) literature:

Previous research addressing CRM using a mobile medium in MB services is limited; this study extended the area of m-CRM to the value literature. This study suggested a conceptual framework of m-CRM relevant to MB applications services value management, which has answered the calls to address this gap of knowledge in CRM literature (Awasthi and Sangle, 2011; Payne and Frow, 2004). Furthermore, this study extends the understanding and the implementation of the new rules of wireless CRM to the reality of developing countries in general and the Saudi Arabian context in particular. This was done by presenting factors shaping banks' ability to manage and harness mobile technology and people in the process of value creation and delivery. The factors introduced reflect the role of value creation from a relationship marketing perspective, which was overlooked in previous studies and was mainly discussed in Western culture.

As noted previously in chapter three, m-CRM research needs further research (Sinisalo *et al*., 2006; Boulding *et al*., 2005) and the founding theoretical framework helps to fill the gap in CRM literature. Accordingly, the purpose of m-CRM is to be a part of building and maintaining customer relationship by leveraging mobile technology. The m-commerce research complements CRM literature by discussing the unique characteristics of mobile medium (Nysveen *et al*., 2005; Balasubramanian *et al*, 2002). This study reveals that mobile technology has a pivotal role in sustaining customers' relationships. It presented different uses of MB applications services from bankers' perspectives. Perhaps, most importantly, MB applications have allowed banks to delegate tasks to the customer. Many branch-centric services have become offered via electronic banking to the customers to perform services at their convenient. This helps the bank to maintain relationship by offering greater control of customers' banking accounts.

Also, the emergent forms of mobile technology have led to adoption of the mobile marketing paradigm to sustain long-term relationships with customers. Due to increasingly demanding customers and their differentiated needs, banks pursue to introduction and use of IT solutions under the CRM. This is particularly important for banking services suppliers to use CRM solutions to align with customers' needs and offer greater market competiveness. The introduction of new IT solutions enables the banks to provide customers with customized products and services. As the findings of the current study proved, MB applications services are effective in generating additional knowledge about customers, increasing sales and maintaining relationship with current customers.

The presented factors map banks' role in value co-creation by facilitating service offerings design (e.g. MB applications). The investigated banks reported key benefits from value co-creation including product quality, and increase in customers' relationship. This is mainly reflected in the design of new banking products which meet the needs of different customers segments. The co-creation of service offerings for investigated banks in this study indicated different strategies. This is because design represents a key differentiator of bank brands. Therefore, banks have emphasized service quality, especially in providing easy-to-use, attractive layout and information presentation to offer a better customer experience.

Contributions to the consumer buying behaviour literature:

The continuing growth of m-applications services implies that business and customers perceive that it provides them with value. This research focus on customer perceived value within the marketing and information technology context for knowledge contribution in this growing area (Kim *et al*., 2007; Kleijnen *et al*., 2007; Holbrook, 1999). More specifically, perceived value is culturally specific and each customer's perceived value dimension plays an important role in forming attitudes and behaviour (Turel *et al*., 2010; Pura, 2005; Sweeney and Soutar, 2001; Slater, 1997). Therefore, value perception may vary in consumers' behavioural intention to use m-commerce services across cultures. However, this study attempts to close this gap to understand consumer usage behaviour of m-applications services with particular attention to MB services in the Saudi Arabian environment. It provides new insights into factors forming and explaining consumer value perceptions in the service delivery process. It describes '*how*' and '*why*' customers' values change over the time regarding mobile services use and consumption. In addition, it explains the role of product characteristics in causing and driving this change. Literature revealed the importance of perceived value in understanding e-banking consumer buying behaviour; this study showed how perceived value could be conceptualized to explain actual customers' usage of MB applications.

This study contributed to consumer behaviour literature by identifying the recognition of perceived value in MB applications services adoption. It applied TCV to improve understanding of what drives consumers towards consumption of new emergent m-applications services. It provides a theoretically-based model which takes into account contextual factors present in real world decision situations of new technology use. The proposed model of TCV provides an understanding of the subjective, potentially irrational value judgment and cognitive decision process that guide the decision to adopt and consume technology. The new smartphones and tablets technology represents a new genre of mobile services technology, which is important for this study because it enables exploration of customers' motivation for accepting MB applications services.

From banks' perspectives, use of MB applications might achieve cost reductions and improve competiveness. It is an additional service delivery channel which helps to retain current online banking users who want to access services from any location. The findings suggest that there are still some serious barriers among bank customers to use of MB applications services. These barriers can be divided into psychological, technical and social-cultural barriers. Mobile

terminal constraints such as small screen and in-put mechanism are still sources of perceived risks and security. Other difficulties facing the MB services segment are vulnerability to hackers and viruses though wireless communication networks. Some of the more common problems, include unauthorized access, redirection of mobile networks and m-applications phony. Therefore, it is service providers' duty to maintain a certain level of safety to make customers aware of common problems.

To begin overcoming customers' distrust of the system, banks need to visibly demonstrate concerns for security and service reliability with concrete solutions. This is essential for customers to eliminate costs when transactions fail or processed inaccurately. As the findings indicated, some of the barriers are related to process design which may affect customer psychology and beliefs while experiencing MB applications. These issues would make it difficult for new customers to use electronic banking services. In addition, non-users have quite negative attitudes towards using MB applications to replace traditional banking channels. This suggests that MB services should be well integrated into other channels so that customers can easily interact with employees who are trained to solve problems. Also, banks need to develop a better customer orientation by offering reliable technology-based banking services.

10.4 Practical Implications

This study provides important strategic guidelines for mobile services suppliers and financial institutions that are considering m-applications services provision. Hence, this section presents the key issues and related recommendations for Saudi banks and other financial institutions to achieve sustained return on investment (ROI) from mobile banking (Table 36). For marketers, providing new mobile products to existing customers could help strengthen customer relationships and increase customer value. However, the findings presented different mobile use situations which help marketers to better position mobile services compared to other e-services. Use situations develop the understanding towards consumer behaviour as they point out when, how and why consumers perceive mobile services as valuable in certain contexts. This enables marketers to anticipate such situations and fulfil mobile users' needs. In some situations, consumers value usable and personalized service information delivery depending on their location (e.g. ability to check their account balance when in a hurry). It would be preferable for consumers to access, store and share with others their personalized service. Therefore, suppliers need to be sure to highlight and advertise these use situations when promoting MB.

Mobile tablets and smartphones continue to impact and transform consumers' perceptions towards using banking services. Therefore, banks should better understand smartphones' capabilities while at the same time alleviating the fears and lack of understanding of non-users. Although mobile value convenience was proved by this study as a main driver to use of MB services, however; customers' security fears remain top of the list of barriers to service growth. Another challenge for banks and financial unions is user experience and awareness. Changing customers' banking self-service choice requires suppliers to educate customers about the benefits of MB services and create awareness regarding the competitive value propositions that the mobile medium affords. In addition, banks should continue to innovate and invest in MB service offerings. For example, it has become easier for most current banks to use augmented reality to locate a live streetscape with icons showing the nearest ATM and bank branches using the m-application. Also, banks can introduce mobile payment using Near-field communication technology. This service can be launched with certain payment limit to alleviate security concerns. It makes MB a smooth user experience which could motivate consumers to adopt MB as their banking option.

Regarding development strategies for MB applications, the study's findings suggest that more attention should be paid to the usability and ease of use of the technology system. Consumers in a mobile context require easy-to-use and quick access to services. Findings of this study revealed that customers perceived flash onetime passwords which are used as an additional security feature to protect bank account from fraud, as complex and difficult to remember. Similarly, consumers expressed disapproval of m-applications solutions that require complex registration procedures and have a separate account from the online banking channel. Furthermore, m-banking services suppliers should ensure information quality and present a well-designed user interface in order to enhance their ease-of-use. This can be performed by delivering timely, accurate and comprehensive information to users to enhance users' perceived utility associated with using m-applications services. The study's findings indicated that designing an easy to use customer interface for the MB application using a few steps to carry out a transaction predicts user satisfaction (convenience) and increases the functional value. The findings of this study indicated that usability problems concur with previous m-commerce studies (Harrison, 2013; Pousttchi and Schuring, 2004). Therefore, it suggests more effort needs to be made to develop easier and more user-friendly systems.

Smartphones' influence has become indispensable to today's consumers. A key driver increasing usage of MB applications services is to empower customers to do more within the m-application. Greater self-serving capability, payment and funds transfer options and account integration are encouraging customers to move from stationary PC to the mobile medium. As smartphones' characteristics become more mature, so does the challenge of maintaining a good user experience. Findings indicate that suppliers have expanded smartphones' capabilities. These can be exploited by using the GPS and camera inherent within smartphones to offer unique banking services such as cheque deposit to provide potential revenue opportunities.

Mobile use situation has become more important for mobile research. By taking consumers' use situation into account, suppliers can better target their audience and communicate value proposition with the most success. It can be concluded from the current study findings that benefits of m-applications services are dependent on situations where they are used. The perceived value lies in the ubiquitous service access and in the ability to react to demands posed by different use situations. Therefore, suppliers should be sensitive to service personalization and adaptive to localization. Unlike other mediums, mobile use situation is marked by ubiquity, spatiality and contextuality, which represent added value. Users can access real-time information and communication on the move. This provides location and time independent service accessibility which helps consumers to meet urgent needs or to save time. Needless to say, m-application service suppliers should build on the benefits of mobility and users' context. Users are more likely to accept localized, timely services which are easily accessed and tailored to their personal needs.

Table 36 MB applications - main recommendations for banks.

Consumer issue	Recommendation
Consumers' banking habits	- Attract consumer attention to MB application services through better marketing. - Promote MB application features and benefits, especially their convenience. - The tablet is more than a mobile device, with bigger screen and resolution, which needs more banking features to attract consumers. - Develop modern banking experience by exploiting mobile features.
Lack of trust, security and privacy risks	- Provide consumer assurance by making security yardsticks clear to user (e.g. SSL). - Update application security and privacy yardsticks.

	- Improve security logging out by using a secured web service provided by the bank (e.g. time-out session). - Offer educational video to build MB application awareness. - Offer MB application training. - Offer step-by-step presentation to demonstrate how to use MB.
Usability and technical issues	- Design simple screen and users' profile. - Easy to navigate pages. - One click orders. - Optimize for mobile services' specific needs and viewing environments. - Easy data entry methods.
Lack of marketing and promotion	- Use short videos and infographic to describe the benefits of MB applications features. - Develop a content strategy for tablets users not just a communication plan. - Market perceived value of mobile banking, especially convenience and ease of use. - Reinforce the hedonic aspects of MB application experience. - Offer incentives to (new) users and frequent users of MB application services. - Train branch staff in MB application.
Social-cultural concerns	- Develop targeted strategies to improve mobile banking self-efficacy. - Provide sessions to demonstrate how to use MB application services to gain a positive perception among non-users.
Emerging trends in mobile applications business	- Instead of being just another channel, mobile applications provide a new source of obtaining, storing and analysing information at low cost. This supports banks to develop better opportunities to sustain customers' relationship through tailored offerings. - Mobile application is a great way to run bespoke offers on the go and to personalize deals based on user's location. Most mobile phones use built-in GPS systems to provide directions or locations. This enables bank to deliver better user experience based on consumers' real-time location.

(Source: Author).

10.5 Research Limitations

From the supply-side, this study provides a foundation for banks' ability to create and deliver value to customers via MB applications. However, in considering any research, it is important to evaluate its limitations. The generalization of the results acquired through case study research is limited. However, conducting multiple case study can help enrich the research and assist in reducing the limitations inherent in its generalization. Further, the use of multiple

qualitative research methods, as in this study, would increase the overall reliability and validity of this study. This study has generalized its findings to theory by identifying relevant factors that conceptualize perceived value in new technology use in the m-applications services domain.

However, this study examined value co-creation management in MB applications services. It was conducted in one Asian country which has three mobile telecommunication operators. The focus was on MB applications services but not other m-applications services such as ticketing, advertising or location-based services. These m-applications services might target specific customer segments and possibly influence social and emotional value perceptions. Also, customers' value perceptions and their effect on behaviour might differ in different cultures and results should be interpreted cautiously with regard to the other Asian, European or American markets. This is particularly important especially in terms of social value influence, which tends to be higher than in Europe, where the culture is considered to be more individualistic. Rapid development of mobile technologies has enabled new types of m-applications content to be delivered to the users. M-applications services offers content related to interactive entertainment, virtual gaming and mobile sites based on the nature of supplier's business.

Scope of the study

This case study reveals a certain number of key factors to deliver value via MB applications services. These factors are generated from Saudi commercial banks operating in Saudi Arabian banking sector. They represent the antecedents of MB applications services value which are arise from the interaction among current and potential customers, culture and Saudi banking sector marketing environment. The importance of exploring factors shaping bank's ability to deliver the value to customers lies in sustaining relationships with customers. This would contribute to achieve better customer satisfaction and higher profitability for shareholders. This study examines the factors that influence the deployment of CRM via the mobile medium, with particular emphasis on those factors which are distinct from other mediums. Saudi banking sector involves multiple players such as specialized credit institutions to provide loans to citizens for development projects in agriculture, industry and to support social life. Also, it has leading banks which offer Islamic banking services according to Sharia-compliant. Islamic banking provide competitive Islamic banking products to meet target segment needs. In addition, Saudi Arabia has opened its banking sector for Gulf and international bank branches

to launch banking services. This is a result of the kingdom's entry into the World Trade Organization (WTO), which in turn made financial services in the kingdom more transparent. Foreign financial institutions have established a strong presence in the local investment banking and brokerage sector. This concurred with the stock market opening to foreign investments which will give international investors direct access to the kingdom's financial market. The movement helps accelerate efforts by the Gulf into becoming a more mainstream destination for international investors.

Findings time-horizon

Findings presented in this study from the supply and demand sides of MB applications services were derived between 2012-2013. The mobile sector is growing, bringing technological development in terms of 4G wireless communication which offer better usefulness and displays of the devices. Besides, the use and ownership of smartphones and mobile-Internet devices such as tablets have generated significant m-applications services traffic. The spread of 4G service is expected to offer higher bandwidth, improved efficiency and greater convenience of broadband connection on the move. With these advantages, 4G service users might face the cost of mobile infrastructure and upgrading mobile services packages. Also, users might need new handsets compatible with 4G connectivity. For marketers, the benefits of 4G represent additional value of mobile to perform remote transactions. This puts the mobile customers in control over banking account management and provides an immediacy to solve urgent needs. Therefore, 4G mobile services, which were not taken into account in this study might have implications on customer perceived value towards MB applications services.

10.6 Future Research

The results of this study provided better understanding of value drivers for customers' use of new technology. These were examined and validated in the Saudi Arabian environment. Saudi Arabia is a developed country and other countries such as Japan and Western Europe have notably advanced mobile technology infrastructure and payments systems. Hence, the study results may therefore vary from one country to another. Therefore, further research is suggested to test and validate the study current results in different countries and cultural contexts. The effect of culture on perceived value influence on customer adoption of mobile services has been examined in literature as in Yang and Jolly (2009) who postulate a difference between American and Korean consumers. Accordingly, further studies would benefit from conducting cross-cultural comparisons.

This study was exploratory, using a qualitative research design; in order to confirm perceived value variables on customers' adoption of m-applications services, competing models can be constructed and tested quantitatively with the help of structural equation modelling. Therefore, more research could be done on the consequences of perceived value on buyer-seller relationship (e.g. customer loyalty). This would gain better understanding of customer behaviour in continuous relationship marketing industry. It should examine potential moderators such as personal characteristics on value perceptions, since consumer traits have been suggested to impact the evaluation of technology-based services.

In addition, mobile technology is evolving rapidly, bringing new business opportunities. Among these are mobile payment systems and augmented reality. Mobile payment means that users employ a mobile phone with Near Field Communication (NFC) technology to conduct payment, providing greater convenience. It is a service offered by banks which is connected to customer's banks account to allow limited payments. Mobile payment is a growing market to improve transactions using a mobile device. Despite its advantages, as noted in this study, consumers might have concerns regarding perceived risks. For certain mobile payment applications there is a need to have strong security standards and authentication credentials.

Another feature of mobile technology is the augmented reality. It is mobile technology that displays information in 3D using the smartphone's camera. This technology enables 3D imagery to check balance, statement history and track the closest bank branch and ATM. Also, augmented reality improves the view of real-world surroundings. It presents a potential for business especially for location-based services through generating direct benefits for customers. Augmented reality reads the GPS data on the mobile phone to find the user's current location. It can be applied in any location where the user needs to locate a place in his/her surroundings. For suppliers, it offers a modern banking service to enhance customer experience using MB applications. Augmented reality needs a strong Internet connection and good battery because the graphics and GPS positioning in mobile phones take time for the download.

10. 7 Research Conclusion

The utilization of m-applications services in business provides a novel way of managing customer relationships. It offers direct communication with customers which makes mobile medium overcomes limitations of traditional media. This is due to the fact that m-applications characteristics enable communication through SMS, MMS or e-mail. Therefore, managers

should adapt communication at the right time from customers' perspective. This means using SMS and e-mail alerts for customer services to maintain relationships. In order to succeed in this, managers should understand customer attitudes and interaction towards offering mobile services. The value of mobile communication for customers is that it keeps bank account management under control wherever customers are.

This research has shed light on the role of smartphones and mobile tablets services from both supply and demand sides. It presented a comprehensive approach to understand uses of m-applications services and it builds on from the early studies which explored this phenomenon from different angles. Mobile devices have become dominant in customers' everyday activity. This is in line with the high consumption of m-applications content services, which reached 75 billion downloads last year (TechCrunch, 2014). A broader picture was described by understanding customer behaviour in m-applications services adoption. It illustrated the drivers for suppliers to invest in this technology, and the purposes and attributes of customers in using its services. Also, it depicted the difficulties that face some customer segments in using m-applications as their banking channel.

The evidence indicated that customer characteristics and behavioural patterns are among the reasons for their different reponses towards MB applications adoption. The customer analysis proposed two segments of m-banking services, based on individuals' characteristics and knowledge of the product. M-applications represent new mobile services, which is still a nascent market and needs further research. This is mainly due to the explosion in the popularity of mobile devices. M-applications have become popular means for business, information delivery and online content access. Service suppliers are now beginning to take advantage of m-applications popularity and recognize their importance as a means of connecting users to content. This is due the fact that m-applications combine traditional mobile services with advance online features which are most appropriate to maintain customer relationships in business.

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Appendices

Appendix (1) Data collection leave permission.

UNIVERSITY OF Hull

Hull University Business School
Research and Quality Assurance
T +44(0)1482 463598
E businessresearch@hull.ac.uk

26 September 2012

To Whom It May Concern,

Sulaiman Althuwaini – 200912966

Sulaiman Althuwaini is a PhD Management candidate at Hull Business School - University of Hull in the United Kingdom. The candidate is in the second year of his PhD study and approaching the data collection stage. The main focus of the research is on marketing financial services management. The candidate is required to go to Saudi Arabia for the purpose of data gathering from 1/10/2012 to 31/12/2012. The candidate will be under the supervision of a faculty of Business Administration of Riyadh College of Technology. The data collection process is essential for the progress of the candidate's research.

Yours faithfully,

Dr. David Harness
Supervisor

The University of Hull
Business School
Kingston upon Hull HU6 7RX
UK

Hull University Business School
University of Hull
Hull, HU6 7RX
United Kingdom

School reception
+44 (0) 1482 347500

www.hull.ac.uk/hubs

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Appendix (2) Data Collection Access (phase one)

Date 14/10/2012 التاريخ /

Ref.433/76 مشفوعات رقم /

Dear Mr. Sulaiman,

With the reference to your letter dated 26th of September 2012, on behave of Al Rajhi Bank Individuals Banking Services Department, I am pleased to inform you that we are accepting your request to provide the essential data required for your PhD research. Please be aware to the confidentiality of information that you may collect and treated only for your PhD study purposes only.

With regards and complements ,,,

Individuals Banking Services Department

Ahmid AlZamil

شركة الراجحي المصرفية للإستثمار ص.ب 28 الرياض 11411 المملكة العربية السعودية
هاتف 0096612116000 تليكس 406317
AL Rajhi Financial Investment Corporation P.O 28 Al Riyadh 11411
Kingdom of Saudi Arabia Tel. 009661211600 Telex 406317

Appendix (3) Data collection access (phase two).

KINGDOM OF SAUDI ARABIA
echnical and Vocational Training Corporation
Riyadh College of Technology

المملكة العربية السعودية
المؤسسة العامة للتدريب التقني والمهني
الكلية التقنية بالرياض

الرقم: التاريخ: ٨ / ٦ / ١٤٣٢هـ المشفوعات:

لمن يهمه الأمر

نفيدكم بأنه لا مانع لدينا بقيام الباحث /سليمان بن عبدا لله الثويني بدراسة ميدانية في مقر الكلية التقنية بالرياض (قسم التقنية الإدارية) ، والتي تتعلق بمجال بحثه في مجال إدارة الخدمات المالية لمرحلة الدكتوراه في جامعة هال البريطانية وسنمكنه من جمع البيانات والمعلومات المطلوبة ومقابلة العاملين والمسئولين المعنيين بالمنشاة.

علما بأن إصدار هذا الخطاب تم بناء على طلبه لتقديمه للملحقية الثقافية السعودية بلندن بالمملكة المتحدة.

وكيل الكلية للتدريب
خالد بن عبد الله الرميحي

المؤسسة العامة للتدريب التقني والمهني
الكلية التقنية بالرياض

ص.ب: ٤٢٨٢٦ الرياض: ١١٥٥١ هاتف: ٤٥٦٧٧٠٠ فاكس: ٤٥٤٦١٨١
P.O. Box: 42826 Riyadh 11551. Tel. 4567700. Fax: 4546181
www.rct.edu.sa

Appendix (4) Translation of Data collection access.

Khaled Fahad AL-SALIM CERTIFIED TRANSLATION
EX-BOHOOR
Membership No.: 25493

خالد فهد السالم للترجمة المعتمدة
بحور اللغة سابقا
رقم العضوية ٢٥٤٩٣

Kingdom of Saudi Arabia

Technical and Vocational Training Corporation

Riyadh College Technology

Date: 8/6/1423

To Whom It May Concern

This is to inform you that we have no objection that the researcher/ SULAIMAN ABDULLAH ALTHUWAINI conduct a field study at the seat of Riyadh College Technology (Division of Administrative Technology) relating to the area of his research in the field of financial services management for PhD stage at the University of Hull, UK, and we will enable him to collect the required data and information and to meet the concerned workers and officers at the firm

Knowing that this letter has been issued upon his request to be submitted Saudi Arabian Cultural Mission to United Kingdom.

Khalid bin Abdullah Al-Rumayhi

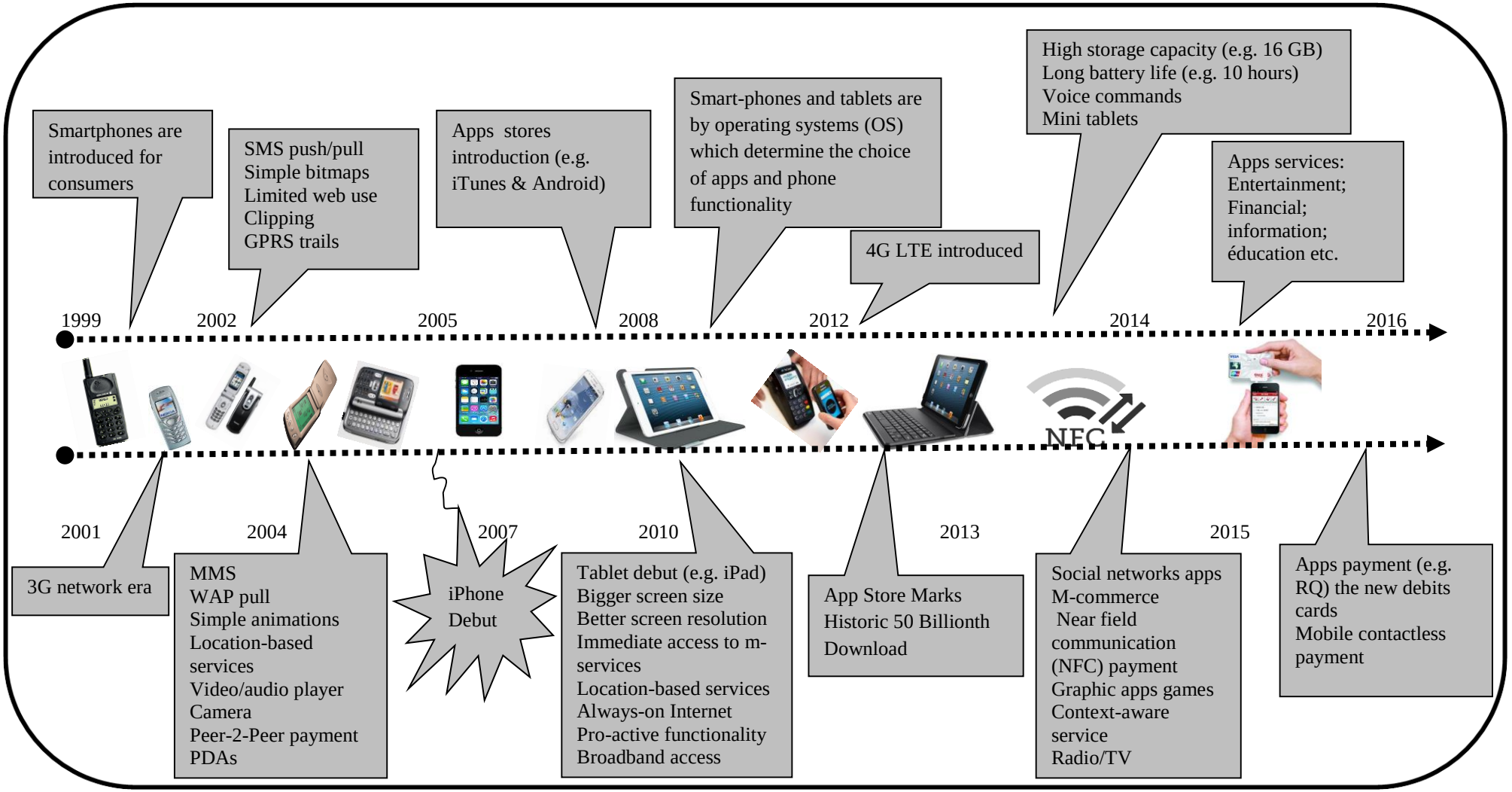
College Deputy for Training

(Signed)

(Official Stamp Affixed)

تلفون : ٤٧٨٢٩٩٩ - فاكس : ٤٧٩١٢٩١ - ص.ب ٤٢٧٩ الرياض ١١٤٩١ - الملز - شارع الستين - بجوار كوبري الخليج
Tel. : 4782999 - Fax : 4791291 - P.O.Box 4279 Riyadh 11491 - Malaz - Sitteen St.- Near Gulf Bridge

Appendix (5) Milestones in Mobile Features Development (source: Author).



Appendix (6) Background of Saudi Banks Operating in Kingdom of Saudi Arabia (official documents consulted at banks' Internet banking).

N	Bank Name	Overview	Vision & Mission
1	The Saudi Investment Bank (SAIB)	SAIB is a prominent financial institution that has been successfully operating in the Kingdom of Saudi Arabia for more than 35 years, with over 48 branches and 11 women branches located throughout the Kingdom, including 41 of which are working under ALASALAH Brand.	To become the financial partner of choice for aspiring businesses and individuals. • Build lasting relationships with growing businesses and with today and tomorrow's affluent individuals. • Focus on a core product set with clear offerings for each client segment that differentiates us through efficiency and service quality. • Develop a culture that fosters ownership, collaboration, customer focus and operational excellence. • Further strengthen staff loyalty through the introduction of a performance driven environment.
2	Al Rajhi Bank	Al Rajhi Bank has a vast network of over 500 branches, over 100 dedicated ladies branches, more than 3,600 ATM's, 28,000 POS terminals installed with merchants and the largest customer base of any bank in the Kingdom, in addition to 130 remittance centres across the kingdom.	A trusted leader delivering innovative financial solutions to enhance quality of life everywhere. • Integrity & Transparency Openness and highest standards of corporate & personal ethics, in all that we do • Passion to Serve Our Customers A strong commitment to anticipate and address customer needs beyond expectation • Solution Orientated Helping our customers achieve their objectives • Modesty Humility in thought and deed in everything we do • Innovativeness Nurturing imagination and fostering creativity for better results • Meritocracy defining, differentiating and reinforcing excellence in people Care for Society Contributing towards a better tomorrow
3	Samba Financial Group	SAMBA is considered to be one of the biggest banking brands with strong customer loyalty. Samba has been able to retain its #2 ranking in terms of asset size despite its relatively smaller	Samba's main business values:

		branch network (65 branches) which is indicative of its successful marketing of its brand. Samba has international presences in London, Qatar, Dubai and Pakistan. The bank currently has 65 branches with 2,750 employees and more than 350 ATMs in the Kingdom and one branch in London.	• To be the foremost financial institution in Saudi Arabia • Providing world-class solutions • Not just meeting customer needs, but exceeding expectations • Investing in people • Benefiting local communities • Delivering superior returns to our investors
4	Riyad Bank **(RB)**	**RB** was established in 1957 as a Saudi joint stock company and is the oldest fully Saudi owned bank. The bank is wholly owned by Saudi shareholders with majority of the shareholding with private individuals and balance being held by government and quasi government agencies. **RB** provides a full range of banking services through a network of 195 domestic branches with 4,169 employees. It also has international operations with a branch in London, an agency in USA, a representative office in Singapore.	**RB**' mission statement: **''**We will be the leading Saudi Bank, first in quality, first in value, first in caring for our customer and responding to their needs by continuously improving our services while enhancing our shareholder's value**''.**
5	Saudi Hollandi Bank **(SHB)**	**SHB** is among the smaller banks of the country in terms of total assets and employs 1,504 staff and operates 45 branches, 15 Ladies Sections, 30 Preferred Banking Centres and 265 ATMs providing banking services throughout the Kingdom.	**SHB** Corporate Values: • Deliver superior customer service. • Anticipate and meet customer needs better than our competition • Maintain strict confidentiality.
6	Banque Saudi Fransi **(BSF)**	**BSF** head office is located in Riyadh and have three (3) Regional Offices in Jeddah, Al-Riyadh and Al-Khobar. • 83 full-fledged Branches, 19 Ladies Sections and 5 Fransi Connection Self Service Branches • Total ATM network is 595 including Cash Acceptance Machines • Total POS grew to 7735 while merchants reached 6102 • December 2013, the number of employees reached 2660.	**BSF** aims at creating a long term and personalized partnership with all its customers, gaining loyalty through recognized banking expertise, quality of service, as well as innovative and customized financial solutions • Values each customer and personal situation, helping define requirements and proposing customized solutions; • Makes the best of multiple cultures through agility and expertise, dynamism and youth, pro-activity and responsiveness, welcome and listening to clients' needs; • Expects high level of performance from everyone and recognizes success; provides accordingly opportunities for professional growth; • Bases its strategic directions and daily work on core business values: growth and activities, quality of services and efficiency of processes; and is a

			consistent and responsible member of the community in which it operates, supporting people and important causes.
7	Al Inma Bank	Alinma Bank is a public company, listed on Tadawul since June, 2008. Operating within the banking sector. It has 3 subsidiaries operating across Saudi Arabia, working on multi-line insurance, diversified real estate investment trust and investment banking & brokerage. Alinma is based in Riyadh, Saudi Arabia and was established on May, 2008.	Al Inma Bank vision: ‘’To be customer preferred financial partner’’; its main mission; • To provide our partners with fully Sharia-compliant financial solutions under the best work environment that helps in achieving sustainable growth and contribute to community service • the bank has endeavored to achieve its vision to be the preferred financial partner of all its retail and corporate partners through the provision of innovative and unique products and services • To outperform competitors in the provision of customer service • To achieve consistent growth
8	Al Bilad Bank **(BB)**	**BB** was formed in 2004, eight money exchange organizations merged under the name Bank Al-Bilad. It has more than 2300 employees, 34 branch around the KSA.	**BB** business vision: • To be the preferred choice of genuine Islamic banking solutions; • To strive through initiatives and innovation to provide our banking services on a genuine Islamic basis to meet the ambitions of our stakeholders: clients, employees and shareholders
9	Arab National Bank **(ANB)**	**ANB** has been a front-runner in adopting newer technologies and has made substantial investments in upgrading its IT infrastructure. The management believes that investments important to the future growth of the bank will continue to be made in modernizing its branch network, expanding its ATM network and enhancing its delivery capabilities through the use of technology. The bank is in the process of revisiting the whole retail banking operation which includes relocating some of the branches and thrust on e-banking initiatives.	ANB brand promise: ‘‘A Friend Indeed’’ **ANB** promise is to earn customer friendship, by being transparent and committed, by making sure our customers are always satisfied. This is why we are a friend indeed.
10	Saudi British Bank **(SABB)**	**SABB** is among the medium-sized banks. It is one of the most technologically sophisticated banks in the KSA thanks to its main shareholder, HSBC, which provides the bank with access to its systems, technology and expertise. During 2005, the bank undertook a complete re-branding as evidenced visually by a new logo with abbreviated name, **SABB**, in both English and Arabic, alongside the Hexagon logo of HSBC. By doing this, the bank intends to add an international dimension to its brand and at the same time manifesting the longstanding association with HSBC.	**SABB** banking vision: • Provides high-quality solutions to all customers banking needs today and help them achieve financial goals for tomorrow.

11	The National Commercial Bank **(NCB)**	**NCB** is one of the largest Banks in the Arab world. NCB maintained its leadership in corporate social responsibility. A number of new programs were launched to enhance NCB's strategic partnerships and geographic coverage. Various initiatives included job opportunity programs that provided entrepreneurs with knowledge, support, and benevolent loans.	**NCB** business mission: • Providing a diversified line of financial business.
12	Bank Al Jazira **(BAJ)**	**BAJ** is recognised as a leading and fast-growing sharia-compliant financial institution, and client-driven, service-orientated bank, where we provide customers with innovative sharia-compliant services and products**.** It was established in June of 1975 and began a restructuring process in 1992. At this point the bank started introducing modern technology, and new banking products. The bank currently offers a full range of conventional and Islamic banking and an array of investment products and services, including investment advisory, asset management, international brokerage, local shares trading and a range of mutual funds. BAJ was also the first to launch an authorized Islamic life insurance program in the Kingdom of Saudi Arabia.	• **BAJ** aims to provide smart banking services and solutions for Islamic modern banking; • **BAJ** striving to provide innovative, high quality banking and investment products and services through highly skilled staff in order to improve services provided to its clientele.

Appendix (7) Informed Consent – Directors of Saudi Banks.

Dear Participant,

My name is Sulaiman Abdullah Althuwaini and I have been granted a PhD bursary from King Abdullah Scholarship Program - Ministry of Higher Education in Saudi Arabia. Currently, I am working on my PhD research at Hull Business School at Hull University in the UK. My work has an emphasis on mobile banking applications for smart-phone devices in Saudi Arabia. My research is entitled *'Exploring buyer-seller value creation in mobile banking applications: a model development'.*

In the beginning, I would like to warmly thank you in advance for giving me the opportunity to make the interview and discuss some issues related to mobile banking services value creation process which will help me enrich this study regarding value creation and delivery in e-banking services.

Your position has a key role in developing mobile banking services to the clients; therefore you have been selected for this interview. Your views are essential for the progress of the study. This interview will take approximately 45-50 minutes and your efforts again are warmly appreciated.

The study and this interview are designed for academic purposes. The outcomes of this study may help the banking sectors in general and banks of Saudi Arabia in particular. The interview's outcomes are extremely confidential as they will be analysed and interpreted by the researcher himself. As a participant, you have the right to withdraw at any time, without giving any reason.

Thank you again for your time and your cooperation is appreciated.

If you want further information, feel free to contact the researcher by:

Mobile No. (K.S.A) +9965 55282300

Mobile No. (UK) +447 543652871

E-mail: s.althuwaini@2009.hull.ac.uk

Sulaiman Althuwaini	Dr. David Harness
PhD Candidate	Research Supervisor
Hull Business School	Hull Business School
University of Hull, UK	University of Hull, UK
http://www2.hull.ac.uk/	http://www2.hull.ac.uk/

Appendix (8) Sample of translated transcript data analysis (adapted from Alfrih, 2009: 417).

Interviewer's Position: Products Manager of Internet & Mobile Banking.

N	*Questions /themes/issues (first order category)*	*Answer*	*Subcategories/subthemes/sub issues (second order category)*	*Sub-sub categories (Sub-Sub themes / Sub-Sub issues) Third -Order Category*	*Note*	*Direct Quotation*
1	Can you describe your bank's efforts in providing m-banking services which meet current or potential customers' needs? To obtain information about the main channel objectives.	We offer different m-banking services that meet different clients' needs. We offer different MB services products, which allows current clients to implement their banking operations easily and conveniently via SMS (SMS), mobile-web Internet and m-applications. This service allows clients to implement a lot of banking operations through SMS messages on their accounts using their mobile device. In addition, MB service alerts clients to the operations carried out on their banking accounts such as cash withdrawal, cash deposit and salary deposit. However, our efforts as a leading banking services providers in the KSA market continue to provide a new and innovative dimension of electronic banking through smartphones and mobile tablets. Our new introduce MB applications services create new edge of m-banking in terms of the variety of services available and ease of use. In addition, it offers an attractive browsing, which is specially designed to fit those segment of clients who looking for innovative and modern banking services. It is a service which is mainly for online banking users and those who like to access their banking on the move. We have witnessed that a significant proportion of our online users have adopted the MB applications services. The most common features consumed are to check balances or recent transactions.	**(1)** Customer service; **(2)** for all current customers; **(3)** developing new products; **(4)** positioned to Internet banking users;	**1.1** pull request **1.2** push alerts;	Some MB services offered need monthly fees	*''It is a service which is mainly for online banking users and those who like to access their banking on the move. We have witnessed that a significant property of our online users have adopted the MB applications services. The most common features consumed are to check balances or recent transactions''*

2	To what extent do you align technology to meet your clients evolving banking needs? To obtain information of customer-oriented culture.	For a bank, it is important to expect clients' needs and provide the best value products and services. Providing up-to-date digital banking solutions will lead to a wider understanding of clients' needs. Therefore, we react towards meeting those needs whereby we put clients into the heart of our business vision; instead of pushing them to what the bank wants or decides. However, MB application solutions is one of our banking products that aims to fullfill cleitns' needs based on the basis of Sharia Islamic Financial principles to meet the ansiperation of all clients. It means providing excellence in customer service by achieving the highest level of customer satisfaction through understanding their needs and supplying them with the best possible banking solutions.	**(1)** customer-oriented logic; **(2)** 'banking solutions' viewed as perceived value products;			*''However, MB application solutions is one of our banking products that aims to fullfill cleitns' needs based on the basis of Sharia Islamic Financial principles to meet the ansiperation of all clients. It means providing excellence in customer service by achieving the highest level of customer satisfaction through understanding their needs and supplying them with the best possible banking solutions''.*
3	Can you explain your bank's experience in managing customers' relationship through the mobile medium? and how this has impacted on the bank's prosperity. To understand the (new) rules of wireless CRM for bank's long-term success.	There are real advantages to m-banking over the online banking channel. This represented by more convenient (ubiquity) way to bank, save time and even money by enabling clients to better manage their finances. Moreover, clients most frequently use MB services to check their account balances, account movement, bill payments and money transfer. We are keen to support innovation that benefit different clients segments. Therefore, the MB application has received an overwhelming response since we have introduced to clients. It has been downloaded from approximately 16,000 clients, whereas the previous MB application was updated by 13,000 clients. In addition, we are witnessing 75 downloads per client on a daily basis. We see this as a good sign of our customers' satisfaction with (new) the MB application product. This would increase the pressure to make more efforts to keep in line with our clients' aspirations''.	**(1)** Information collection; **(2)** monitoring clients behaviour; **(3)** positive attitude; **(4)** product planning & evaluation; **(5)** data analysing; **(6)** improve customer relationship;			*''the MB application has received an overwhelming response since we have introduce to clients. It has been downloaded from approximately 16,000 clients, whereas the previous MB application was updated by 13,000 clients. In addition, we are witnessing 75 downloads per client on a daily basis. We see this as a good sign of our customers' satisfaction with (new) the MB application product. This would increase the pressure to make more efforts to keep in line with our clients' aspirations''.*

4 5	To what extent do you see (new) mobile technology advances encourage the bank to foster relationship with different customers' segments? In your perspective, how do you utilize its value propositions for business success? To find out how bank harness new mobile technology value propositions.	The relationship between the bank and clients is rapidly changing, with interactions increasingly occurring on mobile devices, in real time, with contextual benefits. M-banking is growing in popularity and its effect on banking services is clear. While some clients prefer traditional branches for banking services, others are inspired by digital banking and it is part of our commitment to improve customer experience and provide services required by young and those who prefer modern digital banking. A great source of (new) smartphones is its functionalities, technology advances and business opportunities. For example, we released a security token m-application service that can be installed on any smart phone. It basic function is to validate and perform critical transactions and operations in the Internet banking in a secure way. It has the latest state of the art validation methods such as: response only method and e-signature method. It is easy and secure service. Furthermore, we have launched a mobile –web service for smartphones and tablets faster access to the Internet banking. The mobile-web, designed with an emphasis on ease of use, feature menus easily manipulated with one finger and populated with balance checking, cash transfer, and other frequently used services. We view smartphones as a new service channel for clients to enhance smartphone initiatives, so clients can use smartphones banking services, its application for locating ATMs and branches, and other services whenever and wherever they want, conveniently and with a bit of fun.	**(1)** Developing services for smartphones; **(2)** authentication process; **(3)** mobile-web banking channel; **(4)** security methods; **(4)** additional banking channel; **(5)** hedonic experience;			
6	In your perspective, what are those factors that might affect the ability of your bank to create and manage customers' relationship through the mobile medium? Please explain why, giving examples where applicable.	The main vision of our e-banking products is provide clients high value-added services which meet their needs and become the best service suppliers for them. The more we give our clients what they need, the more we know about them. The more business they do with us, the better value they receive and the more loyal they become. Therefore, we have achieved leadership through offering new electronic banking channels that answer clients' needs and aspirations. We have invested in m-applications services to deliver a positive customer experience. We launched a number of MB applications for clients' banking accounts control and stock market	**(1)** bank image; **(2)** service quality;			*''we have achieved leadership through offering new electronic banking channels that answer clients' needs and aspirations''...* *''Additionally, the quality of service and ease of use are what clients care for more than any other factors''.*

	To obtain information about bank's ability to create and deliver MB services.	management. Additionally, the quality of service and ease of use are what clients care for more than any other factors.				
7	To what extent of these factors and practices support your bank achieving MB services objectives in terms of managing current customers' needs? To determine how (mentioned) factors applied to achieve MB services objectives.	We do not view any product in isolation, but as part of a full and long-lasting relationship with a client and with that client's total financial needs. We start with what the client needs—not with what we want to sell them. We also want to offer our products to clients in ways that are most convenient to them. That means all of our distribution channels— stores, phone banks, ATMs, the internet and mobile banking channels—work together, integrated with our products, to benefit customers. These services are available 24/7 for clients' convenient access with easy steps transactions and latest security standards.	**(1)** personalized service; **(2)** 24/7 accessibility; **(3)** ease of navigation; **(4)** aesthetic design; **(5)** security; **(6)** informative service; **(7)** reliability			
8	To what extent do you see the bank's internal management encouraging for developing better customer relationship? To obtain information about bank's internal management to maintain customer value.	We put the customer on our top priorities; therefore, we work as one part to achieve bank's business vision. Each department has its group teams which work to identify, monitor and take decision regarding customers' service and complaint issues... Moreover, customer care employees are responsible to set specific customer satisfaction target on a monthly basis. ''The bank should exceed in service quality to achieve the client satisfaction''. ''This means that bank should try to make all of its customers feel exceptional. However, some customers are special and account for a large percentage of the bank's profits. Paying meticulous attention to these customers' satisfaction is important for the bank's long terms profit''.	**(1)** team work; **(2)** independent decision-making; **(3)** satisfaction survey monitoring;			*''Each department has its group teams which work to identify, monitor and take decision regarding customers' service and complaint issues... Moreover, customer care employees are responsible to set specific customer satisfaction target on a monthly basis''...* *''The bank should exceed in service quality to achieve the client satisfaction''*

9	In order to introduce MB service, what are those factors that affect bank to manage IT applications through e-banking services? To obtain information about role of bank IT systems.	The IT applications and technological software are the backbone of banking services industry. They help to collect, store and analyses information to support decision making and better control of consumer behaviour. We work with international and pioneering IT companies to provide the latest solutions. The bank IT applications enables clients to perform all their daily banking services (e.g. money transfer, bill payment, SADAD, stock trading) conveniently. In addition, our MB services offer high security standards to allow clients do most of their banking transactions anytime and anywhere. Our clients receive automatic SMS alerts when their bank accounts are moved. This system saves bank staff efforts and strengthens commitment with our customers by putting them in control of their banking transactions. This comes at a key time for Al Rajhi Bank, as we work towards our vision to provide a world-class integrated banking system that ensures our brand excellence in both national and international markets.	**(1)** data management; **(2)** IT solutions; **(3)** service delivery; **(4)** cost reduction; **(5)** branding;			*''Our clients receive automatic SMS alerts when their bank accounts are moved. This system saves bank staff efforts and strengthens commitment with our customers by putting them in control of their banking transactions''.*
10	To what extent do you see the difficulties and problem in terms of MB services trust? In your view, how do you maintain customer trust when you set up MB services? To find out main strategies applied to maintain trust by the bank.	Clients always have concerns regarding e-banking services security and fraud. As banking services suppliers, it is our responsibility to protect clients' information and financial transaction data that provide peace of mind. Our MB services rely on high-security mechanisms to protect clients' privacy and financial information from login to logout. Transactions are processed behind our firewalls, 128-bit encryption is used throughout and user identity is verified through multiple factors. We've also designed our interfaces keeping in mind that client use mobile device in public places.	**(1)** security software; **(2)** transactions encryption; **(3)** second-factor authentication;	**1.1** information on site; **1.2** automatic block/deactivate account after predefined consecutive unsuccessful login;	Need to visit the MB apps	

11	During the introduction of MB services, how do you attract your client awareness? In what way do you drive customer use and adoption to ensure its fulfilled its business objectives? To obtain information about plans and methods to increase using MB services.	We have released a promotional and advertising campaign in newspaper, online banking and SMS text to clients' mobile. This marketing campaign aims to educate clients on the benefits of mobile banking services. Additionally, we set a short video (demo) on the online banking channel to show how clients benefits from MB applications services and latest features.	**(1)** advertising campaigns; **(2)** marketing videos guideline;			
12	Do you have any comments or further details regarding the role of the bank in supporting MB services or any issue related to it? Comments & Suggestions regarding MB services creation and delivery.	I want to say that m-commerce in general in growing industry especially in KSA due to the government support. In banking, this means that consumers increasingly want more control over their banking services through their mobile devices. Today, banks have challenges in delivering the best value service to consumers who are connected with their mobile phones and it is they who decide when and where to have access to their banking services. We will keep our efforts in developing digital banking products that allow our clients to feel more control of their finance and develop better economic for the bank.	**(1)** m-commerce business opportunity over the e-commerce; **(2)** customer service control; **(3)** competitive advantage;			

Appendix (9) Sample of focus group data analysis (adapted from Onwuegbuzie *et al*., 2009: 8).

Focus group question	*Member 1*	*Member 2*	*Member 3*	*Member 4*	*Member 5*	*Member 6*
1. Why did you decide to buy a smartphone?	*''iPhone reflects innovativeness, easier to use and classier than other smartphone''*	A	*''It is also the same situations for me. All my close friends using smartphones and they gave compliments to use certain m-applications services. Especially for the iPhone because we use the same brand type and we can communicate freely via imessage. It saves me money instead of using SMS texts which it has a fee from service supplier''*	*''It is chic and fashionable smart-phone devices (he means Apple). It always create innovative electronic gadgets which makes our life easier and simpler''*	*''all my friends have got smartphones and they use it for mainly for communication m-applications such as Black Berry messenger. I want to join them and share funny stories and images''*	A
2. Do your social characteristics (e.g. family members or friends) influence your decision towards using particular smartphone m-application service? Which and how?	NR	*''although they have many disadvantages on user's psychological and social status such as loneliness but we should consider their positives. I started to use the social chatting applications (e.g. Whats app) because I realized that most of my college friends were talking about it. I wanted to be involved in their discussion groups. I do not want to be different''*	A	*''smartphones have become modern lifestyle icon especially for the youngster. I personally am attracted to modern technology''*	A	*''I remember once I was out with my friends. A friend of mine wanted to find nearest ATM cash machine. I urged him to use Samba MB application because I have tried before and we do not want to waste out time in traffic jam. I felt like a technology expert at that moment among my friends''*

3. Do your personal characteristics (such as age and lifecycle stage, occupation, economic circumstance, lifestyle and personality and self-concept) affect your decision during purchase of Smartphone? Which and how?	*''my smartphone has good specifications and good value for money. I think for students the price is a matter when deciding to buy new smartphone''*	NR	*''I like always to be different and I do not to imitated others and have similar smartphones. The mobile market has various brand names which have more options to suit one's favourite smartphone''*	NR	*''as a mother, I use it to communicate with my family-members and my sons by sending an educational video clips''*	*''It becomes a sign for modernity (he means smart phones). They become with everyone in my family and friends. Sometimes in our social gathering, we spread jokes and taunted members who have old phones''*
4. What aspects do you consider when purchasing a smartphone... • aesthetic design • creativity • artistry? 5. Probing question: to what extent you feel when using smartphone and m-applications services. Can you illustrate your answer with examples please	*''its design (means MB application) reflects smart phones modernity and creativity. When I open my accounts, they come in circles shapes which I press to have banking details of each account. This we expect from SAMBA Bank''*	NR	*''it has attractive application design and great simplicity. I can customize its features based on my frequent use. Besides that, I can look for nearest cash ATM deposit without the need to log on to MB application. It is really enjoying experience''* .	NR	*''these aesthetics design which impressed me to use MB services''*	NR
6.How do you usually find out about m-applications services (e.g. games, social, productivity and banking); Recommendations from friends	*''there are various applications for cooking recipes which I considered more convenient than buying a cookbook''*	*''during my study it is easy to look for dictionaries applications. They have different features some have pronunciation feature others provide*	*''I was looking for m-applications in the Apps Store when I recognized the logo of Al Rajhi Bank accidently on one of the application. I read its features then I*	*''It has become a spontaneous habit for me to use m-applications games when I am free especially those games which help improving brain and intellectual*	*''I like sharing photos on social media. Therefore, from time to time I search for new m-applications photos editing. They can awaken creativity. There are various*	*''It is undeniable fun to play mobile games on Facebook application because users are connected to hundreds of other Facebook users who also playing the same game. Multi-*

Prefer to search and discover yourself		*synonyms and antonyms. This arouses me further to know more about them to choose the best''*	*downloaded it on my mobile. I was confident of the MB application when I received the SMS onetime authentication. This was my first time to find out about the service''*	*thought such as War Chess or Numbers Detection''*	*image crafting applications which help me to come up with new ideas''*	*player gaming with friends gives another new level of fun. What can be more fun than free entertaining games and in the same time expanding your friend list?''*
7. Where do you usually use your smartphone? For ex. school, café, work, bus, home, waiting for friends etc.	*''Due to my job responsibilities, I need to check daily stock market prices via MB application. The 'always-online' feature makes it much easier to access real-time shares prices from the mobile. I set a reminder for maximum prices which I receive from anywhere and place the buying/selling orders. It is a great service''*	*''it has become part of my day especially social media applications to spend time for fun and chatting with others''*	*''in a crowded city like Riyadh, I prefer to use Google Map application to search for unfamiliar destination that I am heading to for the first time. It gives the estimate local traffic status and approximate time for the arrival''*	NR	*''MB application makes my financial life much easier to manage. Once, my debit card was not working while I was doing my routine shopping. I stepped aside and transfered money using the m-application from the other account. It saves time instated of looking for an ATM''*	*Due to my work mobile situations I prefer using mobile e-mail over the stationary. I need to report immediate messages before waiting to arrive to my office and leave the work overloaded''*
8. In terms of banking services, how do you usually you perform transactions (e.g. bill payment)?	NR	*''with MB application I do not need to wait until I go home and do online transactions. It is more convenient to do it via the mobile tablet. It has become essential for my business*	*It has been a while not using Internet banking channel for stock trading management. MB application features provide a one-step transaction for placing orders which saves a lot of time and effort''*	NR	*''I think my MB application is suitable for easy transactions such as checking account balance. It has fewer access steps than Al Inma Online banking channel. I use it mainly to check my balance at specific and certain times ''*	NR
9. Have you used your bank MB applications for banking services? If yes can you describe a use	*''MB applications services are more effective for money transfer. Due to my*	*''I was waiting for my flight at the airport when I received a SMS alert saying that the*	*''I was going out for a social gathering and found out that I needed mobile top up. I*	NR	*''I always prefer doing SADAD bill payments using via the Interior Ministry m-*	*''I am using Al Rajhi Tadawal application services for stock market trading. I can*

situation where you find it useful and effective? 10. Probing question: What MB applications services features aroused your attention to use the offered service? • Ease of use • Anytime and anywhere accessibility • Other can you please mention…	*business I need to check my banking account on almost a daily basis. It becomes easier and faster to check account balance and to transfer money with a few steps on the m-applications. I believe it is nice and calm to manage your payments on the MB application''*	*flight gate has been changed. It keeps me update for any unexpected circumstances''*	*decided to use my bank m-application value added services as I do not want to waste my time in traffic jam looking for nearest ATM. I used it and work perfectly. It was my first time to use MB application services''*		*applications services. Once I went to renew my driving licence and I forgot to pay the fees. A friend of mine told me that I could do it using the m-applications services. It saves me time instead of queuing for the payment''*	*follow the local stock and follow-up rates, and conduct trading operations such as buying and selling, modify sales orders and purchase or cancellation of old orders constantly from the application at any time''*
11. In general, how essential do you think the use of smartphone (m-applications services) in your daily life? To what extent does your smartphone perception influence your behaviour in using mobile services.	*''I prefer the stock market which my bank provides over the online medium. It provides easy access to the stock market prices on a daily basis. Also, it has more options where I can track the movement of the stock that I have in my portfolio''*	D	*''smartphones have a prominent role in the process of facilitating communication process between family-members and parents especially parents that they are in most of their time at work, despite the* fact that direct communication is the best and strongest in the cohesion of the relationship''	*''it is available 24 hours 7 days a week where I have the access to many services for transferring money and paying my bills''*	D	*''people started to blame you for not responding or participating in Whats App groups. They favour this type of communication because it is a free of charge service and provides instant and real time information. It's affected the way we communicate in the mobile phones''*

A = Indicated agreement (i.e., verbal or nonverbal)
D = Indicated dissent (i.e., verbal or nonverbal)
SE = Provided significant statement or example suggesting agreement
SD = Provided significant statement or example suggesting dissent
NR = Did not indicate agreement or dissent (i.e., nonresponse)

Appendix (10) Focus Group Participants' Profile.

A) Please tick your bank: (you can tick more than one)		
1	Al Rajhi Bank	
2	Al Ahli Bank	
3	Samba Financial Group (SFG)	
4	Saudi Investment Bank (SAIB)	
5	Al Inma Bank	
6	Riyad Bank	
7	Al Bilad Bank	
8	Saudi Hillandi Bank (SHB)	
9	Saudi Fransi Bank (SFB)	
10	Arab National Bank (ANB)	
11	Saudi Arabian British Bank (SABB)	
12	Bank Aljazira	

B) Are you:			
1. Male		2. Female	

C) Can you tick your age group?					
A	18-25 years		D	36-40 years	
B	26-30 years		E	More than 40 years	
C	31-35 years				

D) What is your education level?					
A	**High School**		**D**	**Master**	
B	**Diploma certificate**		**E**	**PhD**	
C	**Bachelor degree**		**F**	**Other please specify**	

E) What is your monthly income?					
A	**SAR 1000-2000**		**C**	**SAR 5100-10.000**	
B	**SAR 2100-5000**		**D**	**More than SAR 10.000**	

F) What do you do?					
A	**Full time student**		**D**	**Public sector employee**	
B	**Self-employed**		**E**	**Other sources**	
C	**Private sector employee**				

G) How long have you owned a smart-phone?					
A	**Less than a year**		**D**	**More than three years**	
B	**More than a year**		**E**	**More than four years**	
C	**More than two years**		**F**	**More than five years**	

Appendix (11) Demographics of focus group participants (MB applications users).

Case Summaries

Case code	gender	age	Educational level	occupation	Smart-phone experience	income
1	M	26-30 yrs.	diploma certificate	FT student	> three years	SAR 6000-10,000
2	M	31-35 yrs.	Master	Self employed	> two years	SAR 6000-10,000
3	M	31-35 yrs.	Bachelor	Private sector	< a year	SAR 6000-10,000
4	M	26-30 yrs.	Bachelor	Self employed	> three years	SAR 1000-5000
5	M	26-30 yrs.	Bachelor	FT student	> 5 years	SAR 11,000-15,000
6	M	18-25 yrs.	Bachelor	Self employed	> three years	SAR 1000-5000
7	M	26-30 yrs.	Diploma certificate	FT student	> 5 years	SAR 6000-10,000
8	M	31-35 yrs.	Professional qualification	FT student	> 5 years	SAR 11,000-15,000
9	M	31-35 yrs.	Diploma certificate	PT student	> three years	SAR 11,000-15,000
10	M	26-30 yrs.	Bachelor	FT student	> two years	SAR 11,000-15,000
11	M	26-30 yrs.	Bachelor	Public sector	> two years	SAR 11,000-15,000
12	M	26-30 yrs.	Bachelor	FT student	> two years	SAR 11,000-15,000
13	M	31-35 yrs.	Diploma certificate	FT student	> a year	SAR 11,000-15,000
14	F	31-35 yrs.	Bachelor	FT student	> three years	SAR 16,000-20,000
15	F	31-35 yrs.	Professional qualification	FT student	> three years	SAR 16,000-20,000
16	F	31-35 yrs.	Under graduate	FT student	> three years	SAR 11,000-15,000
17	F	26-30 yrs.	Bachelor	FT student	> two years	SAR 16,000-20,000
18	F	26-30 yrs.	Bachelor	FT student	< a year	SAR 16,000-20,000
19	F	26-30 yrs.	Bachelor	FT student	> three years	SAR 11,000-15,000
20	F	31-35 yrs.	Master	FT student	> three years	SAR 11,000-15,000
Total **N**	20	20	20	20	20	20

(Source: Author)

Appendix (12) Demographics of focus group participants (non-users of MB applications).

Case Summaries

Case code	gender	age	Educational level	Occupation	Smart-phone experience	income
1	M	36-40 yrs.	Master	Public sector	> two years	> SAR 11,000-15,000
2	M	18-25 yrs.	Diploma certificate	Public sector	> two years	< SAR 1000-5000
3	M	36-40 yrs.	Bachelor	Public sector	> three years	> SAR 11,000-15,000
4	M	31-35 yrs.	Master	Private sector	> three years	> SAR 11,000-15,000
5	M	31-35 yrs.	Bachelor	Public sector	> three years	> SAR 6000-10,000
6	M	31-35 yrs.	Bachelor	Public sector	> three years	> SAR 6000-10,000
7	M	26-30 yrs.	Bachelor	Public sector	> three years	> SAR 6000-10,000
8	M	26-30 yrs.	Bachelor	Public sector	> two years	> SAR 6000-10,000
9	M	31-35 yrs.	Bachelor	Public sector	> three years	> SAR 11,000-15,000
10	M	31-35 yrs.	Professional qualification	Private sector	> two years	> SAR 6000-10,000
11	M	31-35 yrs.	Professional qualification	Private sector	> two years	> SAR 11,000-15,000
12	M	26-30 yrs.	Bachelor	Public sector	> three years	> SAR 11,000-15,000
13	M	26-30 yrs.	Bachelor	Public sector	> two years	> SAR 6000-10,000
14	M	18-25 yrs.	Bachelor	Public sector	> three years	> SAR 6000-10,000
15	F	26-30 yrs.	Bachelor	Other	> two years	< SAR 1000-5000
16	F	26-30 yrs.	Bachelor	Other	< a year	< SAR 1000-5000
17	F	26-30 yrs.	Professional qualification	Public sector	> three years	> SAR 11,000-15,000
18	F	31-35 yrs.	Bachelor	Public sector	> three years	> SAR 11,000-15,000
19	F	31-35 yrs.	Bachelor	Public sector	> two years	> SAR 6000-10,000
20	F	26-30 yrs.	Bachelor	other	> three years	< SAR 1000-5000
Total **N**	20	20	20	20	20	20

(Source: Author)

Appendix (13) Focus Group Interview Protocol (MB applications services users).

- Why did you decide to buy a smartphone?
- Do your social characteristics (e.g. family members or friends) influence your decision towards using a particular smartphone m-application service? Which and how?
- Do your personal characteristics (such as age and lifecycle stage, occupation, economic circumstance, lifestyle and personality and self-concept) affect your decision during purchase of Smartphone? Which and how?
- What aspects do you consider when purchasing a smartphone?
    - aesthetic design
    - creativity
    - artistry
- Probing question: how do you feel when using smartphone/m-applications content services?. Can you illustrate your answer with examples please?
- How do you usually find out about m-applications services (e.g. games, social, productivity and banking)?
    - Recommendations from friends
    - Prefer to search and discover yourself
- Where do you usually use your smartphone? E.g. school, café, work, bus, home, waiting for friends etc.
- In terms of banking services, how do you usually perform transactions (e.g. bill payment)?
- Have you used your bank MB applications for banking services? If yes, can you describe a use situation where you find it useful and effective?
- Probing question: What MB applications services features aroused your attention to use the offered service?
    - Ease of use
    - Anytime and anywhere accessibility
    - Other can you please mention…?
- In general, how essential do you think the use of smartphone (m-applications services) is in your daily life? To what extent does your smartphone perception influence your behaviour in using mobile services?

Appendix (14) Focus Group Interview Protocol (MB applications services Non-users).

- In general, can you describe your experience of using (new) mobile phones and tablets?
    - How long have you used them?
    - Why did you decide to use them?

- What access do you have for your banking services?
    - Prefer visiting bank branch;
    - Using e-banking channel (e.g. ATM/telephone/Internet);

- What do you think of using e-banking channels (e.g. Internet/mobile banking) for banking services in general?
    - For yourself/family-member/friend etc.

- In your perspective, what factors do you think block you from using their services?
    - Do not know that the service exists,
    - You think that you are fine with using other channels,
    - Need to know more about the service benefits,
    - Do not know how to use the service,

- Have any of following factors influenced your decision regarding MB applications service use?
    - Lack of familiarity with mobile device,
    - Lack of familiarity with m-applications technology,
    - Unfriendly MB applications service design (where relevant, participants will be asked to explain why and how the factors influenced decision-making),

- Do you have concerns regarding MB applications services security and privacy (perceived risk) (lay definitions of these terms were given to participants)? You can illustrate this by mentioning use situations.
    - System error possibility,
    - Easily get hacked,
    - Not enough security standards,
    - Other, can you raise for discussion,

Appendix (15) Schema used to code MB services users' focus groups data (source: Saldana 2009:12).

Main Theme	Main Category	Main Codes
Functional value	Easier control over banking account	One-touch orders Familiarity with mobile apps Speed Bigger screen display Efficacy No mouse needed No queuing App updates regularly Preciseness Can check bank movement (e.g. balance check) Use service whenever wanted Peace of mind (transactions confirmation) Simple steps no need to page browsing No need to leave home Zoom in/out better resolution
	Convenience (ubiquity)	3G/wireless connection Anywhere/anytime Feel of freedom Contextuality Privacy Avoid negative surprises (e.g. no money in the account) Personal device Feeling of control Connected with my bank
	Improves job performance	Perform tasks accurately real-time information connectivity 'always-on' account control accessibility easier than using a computer Can react immediately (e.g. buy stock quotes)
Emotional value	Enjoyment	Updating/accessing social networks Playing games taking photos/ making videos Watching videos /TV programmes Sending/receiving broadcasts via chatting m-applications Internet browsing Faster e-mail accessibility

			Downloading applications
Social value		Express creativity	Device model Apps design Aesthetic features
		Self-image	Self-esteem Avoid feel of shame Being modern Ability to perform service by oneself
		Social acceptance	Social status/lifestyle Impress others (technological ability)
		Seeking novelty	New experience New mobile services Self-respect New technology adopters
Epistemic value		Satisfying curiosity Testing new technology	Ease of use Always online Faster access to knowledge Explore new knowledge Access to new news
Conditional value		Time-saving	Avoid time-pressure Concentrate on other tasks No need for bank visit Check funds before buying something
		Lack of alternatives Geographical distance	Lack of time Unfamiliar location Lack of funds Urgency

Appendix (16) Schema used to code MB services Non-users' focus groups data (source: Saldana 2009:12).

Main Theme	Main Category	Main Codes
Banking habit	Lack of relative advantage	Lack of MB application benefits Low amount of service information Mobile is appropriate for banking Fears of perceived risks Limited banking features Suitable for SMS banking alerts
	Needs already satisfied	More convenient to talk to branch staff ATMs and online banking Familiarity with online banking Easier control via online banking Better customer service via online banking
Technical Problems	High possibility of errors	lack of zooming Mobile keying Screen in-put Small font-size Message error Unavailable service Public Wi Fi Phishing Lack of customer support Limited options
	Poor customer service	No personal service Lack of security yardsticks
	Hanging, crashing and freezing easily	Faulty system Heavy pages download
	Negative attitude towards technology	
Perceived Risks (security & privacy)	Complex system	Needs strong Internet connection Difficult to learn Complex user interface Difficult to control app pages SMS onetime password is complicated to use It takes time to perform transaction
	Mobile app spoofing	Counterfeit app
	Mobile unsuitable device for banking	Limited Internet bandwidth Short-life battery Breaking connection Virtual keyboard

	Weak authentication	no 2nd factor authentication
	Wireless network hacking	Unsecured networks
Usability Barrier	User interface design	Lack of customization Difficulty in performing transactions No visual view (e.g. ability to check tapped information) Complexity (e.g. limited time for inserting data) Log in too complicated App services are not enough versatile Difficulty in pages design No complaint service
Lack of marketing and promotion	Poor advertising	No information source (e.g. ads) Lack of training leaflets No demos offered in online banking
	Insufficient guidance use	Lack of social media advertising Lack of direct marketing
Cultural Issues	Facilitating conditions	Weak Internet coverage in some areas No training or demos to use m-banking Lack of skills to perform m-banking Lack of necessary resources
	Consumers attitudes	Technology ignorance Negative attitudes to bank's e-banking services
	Social influence	Reference group