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MARKETING MIX'S INFLUENCE ON MOBILE BANKING ADOPTION BY THE RURAL UNBANKED CONSUMERS IN MASVINGO PROVINCE

By

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A thesis submitted in partial fulfilment of the requirements for the Doctor of Philosophy in Marketing.

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DECLARATION

I, Pinigas Mbengo, declare that:

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Signed………………………………….

DEDICATION

This thesis is a dedication to my mother and daughter, Atanedziwe, and to the memory of my most inspiring wife, Tendai, and my daughter, Anita, who had much love, respect, and emotional support.

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ABSTRACT

Despite the growing concern in mobile banking adoption research in the developing world, studies focusing on mobile banking adoption by the rural unbanked consumers are significantly missing in Zimbabwe. The major purpose of this study was to determine the influence of marketing mix elements on attitude formation toward mobile banking by the rural unbanked consumers in Masvingo province. The current study strived to answer the research questions which included: Do financial product or service attributes have an effect on attitude to adopt mobile banking by the rural unbanked consumers? What is the impact of price satisfaction dimensions on attitude to adopt mobile banking by the rural unbanked consumers? Do distribution elements have an effect on attitude to adopt mobile banking by the rural unbanked? What is the influence of promotional elements on attitude to adopt mobile banking by the rural unbanked consumers? Is there any relationship between attitude and behavioural intention to adopt mobile banking by the rural unbanked consumers? 299 rural unbanked consumers in Masvingo province were interviewed and were intercepted at growth points, shopping centres and in the rural interior. Quantitative and qualitative research methods were employed to gather data through the use of a questionnaire. Quantitative data was tested using descriptive tools, bivariate analysis, exploratory factor analysis, and multiple regression analysis, and hypotheses were tested. Qualitative analysis was done in order to obtain further insights that could not be established from quantitative research. The study ascertained that perceived usefulness, perceived ease of use, accuracy, price-quality ratio, perceived cost, trust, advertising, personal selling and financial education had a positive and statistically significant relationship with attitude formation toward mobile banking. Network coverage and price transparency revealed an inverse and statistically insignificant relationship with attitude. However, no significant relationships were recorded for trialability and service convenience with attitude toward mobile banking. The study established new factors such as price differentials, corporate social responsibility, price reduction, and other factors from the qualitative analysis. It is recommended that marketers, policy makers, and other stakeholders should consider the influence of marketing mix variables when developing strategies to ensure effective market acceptance of mobile banking services and policies that foster financial inclusion in Zimbabwe.

KEY WORDS: Adoption, Consumers, Marketing mix, Masvingo Province, Mobile Banking, Rural Unbanked Consumers, Zimbabwe

TABLE OF CONTENTS

LIST OF APPENDICES

Appendix 1 Informed consent
Appendix 2 Research instrument
Appendix 3 Turntin original report
Appendix 4 Ethical clearance certificate
Appendix 5 Letter of permission from TelOne
Appendix 6 Letter of permission from the Provincial Administrator Masvingo Province
Appendix 7Letter of permission from Reserve Bank of Zimbabwe
Appendix 8 KwaZulu Language Institute Editing Confirmation

LIST OF TABLES

LIST OF FIGURES

LIST OF ACRONYMS

ANOVA:	Analysis of Variance
ATM:	Automated Teller Machine
AVC:	Average Variance Extracted
BAZ:	Bankers Association of Zimbabwe
BLSSD:	Banking Licensing, Supervision and Surveillance Division
CABS:	Central African Banking Society
CBZ:	Commercial Bank of Zimbabwe
CCZ:	Consumer Council of Zimbabwe
CGAP:	Consultative Group for the Poor
DOI:	Diffusion of Innovation
EFA:	Exploratory Factor Analysis
FBC:	First Banking Corporation
GSMA:	Global Systems of Mobile Communication Association
KMO:	Kaiser-Meyer-Olkin
LSE:	London Stock Exchange
M:	Mean
MDS:	Mobile Data Services
MNO:	Mobile Network Operator
NPSD:	National Payment Systems Department
PC:	Personal Computer
PISA:	Programme for International Student Assessment
POTRAZ:	Post and Telecommunications Regulatory Authority of Zimbabwe
RBZ:	Reserve Bank of Zimbabwe
SAAZ:	Software As A Service
SADC:	Southern Africa Development Community
SD:	Standard Deviation
SPSS:	Statistical Package of Social Sciences
TAM:	Technology Acceptance Model
TOAZ:	Telecommunications Operations Association of Zimbabwe
USSD:	Unstructured Supplementary Service Data
ZIMASSET:	Zimbabwe Agenda for Sustainable Socio-Economic Transformation
ZIMSTAT:	Zimbabwe National Statistical Agency
ZPTC:	Zimbabwe Post and Telecommunication Corporation
ZSE:	Zimbabwe Sock Exchange

TERMINOLOGY

Adoption	The decision by an individual to become a regular user of the product (Kotler and Armstrong, 1993:667; Kotler and Keller, 2012:G1).
Banking	A commercial activity which involves acceptance and safeguarding of money owned by individuals and business entities and as a result the finance is lent out to money seekers at a profit.
Consumer	"A person who identifies a need or desire, makes a purchase, and/or disposes of the product". (Solomon, 2014:647).
Consumer Behaviour	"The process involved when individuals or groups select, purchase, use, or dispose of products, services, ideas or experiences to satisfy needs and desires" (Solomon, 2014:647)
Marketing	"The process of planning and executing the conception, pricing, promotion, and distribution of ideas, goods, and services to create exchanges that satisfy individual and organisational goals" (Kotler *et al.* 2009:G5).
Marketing Mix	"The set of controllable marketing variables that the firm blends to produce the response it wants in the target market" (Kotler and Armstrong, 1993:673).
Mobile Banking	A set of banking facilities and services that are conducted via portable devices that are linked to telecommunication networks which are capable of bringing access to mobile payments and transfers as well as being linked to a bank account (Diniz *el al.*, 2011; Federal Reserve, 2014:7).
Mobile Commerce	Chaffey (2009:6) defines mobile commerce as "the electronic transactions and communications conducted using mobile devices such as laptops, personal digital assistants (PDAs) and mobile phones, and typically with wireless connection."
Rural Area	Thinly distributed and populated area outside the delimitations of the town or city; in the countryside.
Rural Unbanked Consumers	Individuals of the country side who do not possess formal bank accounts.

CHAPTER 1
INTRODUCTION TO THE STUDY

1.1 INTRODUCTION

This chapter discusses the background of the problem associated with mobile banking adoption in rural Zimbabwe. Manifestations of the problem are clearly highlighted and gaps in knowledge and how they are to be closed, are dealt with. The chapter also recognises the importance of the statement of the problem while highlighting clearly the purpose of this study. Clearly spelt out objectives are accompanied by the proposed hypothesis. Stakeholders who are theoretically and practically expected to benefit from this study are also considered while the justification of this study is given. The chapter exposes the reader to Masvingo Province where this research was carried out. Limitations encountered and mitigatory measures are also highlighted. It must be noted that this research seeks to examine the marketing mix elements that influence the adoption of mobile banking by the rural unbanked consumers in the whole of Zimbabwe.

1.2 BACKGROUND OF THE STUDY

A United Nations Development Programme report (2011) cited in Zwalibanzi (2011:1) indicates that Zimbabwe is a country with a population of 13 061 239 boasting a 91% literacy rate. It is noted by ZIMSTATS (2012) that 65% of Zimbabweans live in the rural areas against 35% residing in urban areas. Despite having a highly literate population, Zimbabwe is characterised by a complicated financial service sector which has experienced stupendous challenges over the past decade.

Masvingo province is one of the ten provinces in Zimbabwe. It has a population status of 697 992 males and 787 098 females to yield a total of 1 485 090 (ZIMSTATS, 2012:99) and it is ranked amongst the best literate provinces. The past three decades since 1980 has seen Zimbabwe's financial services in rural areas going through a series of reforms but unbanked levels have remained very high resulting in financial inclusion inequalities between the urban and the rural areas. The Consultative Group to Assist the Poorest (CGAP) survey in 2009 discovered that globally there are 2.7 billion people who do not have basic banking services, which matters a lot in that the poor people need safe ways to send, receive and save money.

Before 2000, the Zimbabwean government made tremendous efforts to include financially the rural people through the use of AgriBank (Ltd), formerly the Agricultural Finance Corporation, which in turn was a transformation of the Land Bank which had been established in 1925. The institution was converted to a commercial bank in 1999. The bank was again transformed into an agricultural development bank in 2003, earmarked to provide finance to farmers in line with the government's land reorganisation strategy. The bank offered loans to rural people for their subsistence farming and co-operatives in order to transform their lives (Reserve Bank of Zimbabwe, 2014). However, these

loans were rocked by a period of serious hyperinflation which eroded consumer financial confidence, stifled investment in a new payment system (Dermish *et al.*, 2012:3), and created unceremonious corruption particularly in awarding the loans to the intended beneficiaries. In addition, People's Own Savings Bank (POSB) has closed some of its branches or has rented them out. Other banks such as Barclays have tried to establish satellite and mobile banks in rural areas that were not connected to personal devices but these proved unsustainable for these banks. Ntabeni-Bhebhe (2011) reports that the Reserve Bank of Zimbabwe (RBZ) has noted that banks have shunned setting up branches in rural areas (FinScope survey, 2011:2) as only 11.7% of the total branch network had been serving 65% of the rural population. The banks noted that poor infrastructure resulted in inaccessibility, high cost information processing, transaction and controlling costs, a dispersed and depressed demand for financial services, deposit variability and seasonality.

Again, efforts to improve financial inclusion in Zimbabwe have been done as the government has offered trading licences to 22 banks and more that 120 microfinance institutions strategically scattered around the country. In addition to this, by 31st December 2014, there were over 300 branches from 20 banks and over 473 branches from 143 microfinance institutions against 24 000 mobile money agents (Mataruka, 2015:4). Despite this national networking by commercial banks and microfinance institutions, an immense proportion of the population has largely remained excluded financially (Mataruka, 2015:4). A FinScope survey (2011:5) discovered that of the 13,06 million people in Zimbabwe, 51 % of these are largely rural unbanked while 12 % are formally banked. These statistics therefore indicate that half of all households in rural Zimbabwe are unbanked meaning that they do not have relationships with mainstream financial institutions. It further reports that compared with other parts of Sub-Saharan Africa, Zimbabwe is the least in terms of deposits per 1000 people, at 139, leaving 861 per 1000 excluded from the banking system. The FinScope survey (2012) also stated that in a Southern African Development Community (SADC) perspective, the banking rate in South Africa is at 63%, in Namibia it stands at 62%, Swaziland at 44% and Botswana having 41%, while Zimbabwe pathetically anchor the list with a paucity 24%.

Another FinScope survey report (2011:48) notes that "financial exclusion is particularly high in the rural areas possibly due to limited accessibility to banks and formal salaried employment opportunities". The RBZ (2013:41) in its Monetary Policy Statement also admitted that financial services remained a challenge for the marginalised communities especially in the remote parts of the country. This statement should prompt local banks to take advantage of the situation to serve the unbanked and will undoubtedly accelerate the government's goal of main stream banking. There is serious financial exclusion in rural Zimbabwe as indicated by the following figure 1.1.
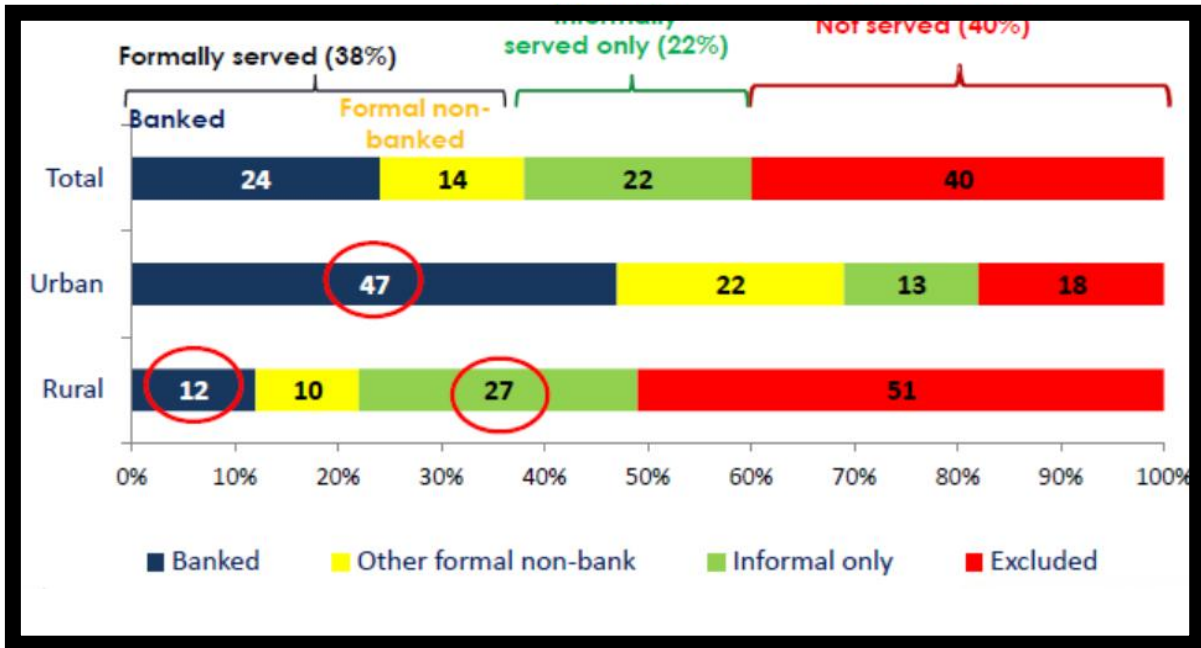
Fig. 1.1 Financial inclusion status in Zimbabwe. Source: Adapted from FinScope Consumer Survey (August-September 2011)

From figure 1.1, 38% (2 316 877) of adults are formally served, including both banked and with other formal bank products or services; 24% of adults are banked; 26% of adults have or use other formal bank products or services; 41% of adults have or use informal mechanisms for managing their finances; and 40% of adults are financially excluded.

The economic crisis of 2000-2008 brought a great lack of confidence in the banking system, so people were not willing to consider banking. The rural unbanked have considerable challenges to become financially included as they have to travel great distances to the physical branch (Tchouassi, 2012:71); there is lack of funds to open accounts; there are concerns about security when travelling long distances with cash; and the customers can be aware of the mobile money service but do not understand how it could be beneficial to them. About 60% of adults in Zimbabwe bank their money in cash at home, as well as borrowing money from moneylenders with usurious interest rates. This prompts a high risk of theft, thus disadvantaging and not protecting the unbanked.

The advent of mobile phones has resulted in a paradigm shift in financial service provisions to both the urban and rural residents (Dineshwar and Stevens, 2013:1). Mobile phone penetration in Zimbabwe is around 103% (POTRAZ, 2014) but the unbanked in rural Zimbabwe is approximately 51% (FinScope, 2011:5). Around the world, mobile phone penetration rate is 78.2% with 9% having bank accounts (World Development Indicators, 2010). This argument is supported by Touchasi (2012:72) who claims that in Sub-Saharan Africa, considerably poor and vulnerable people possess mobile phones than bank accounts. By Feb 2014, the mobile phone penetration rate in Zimbabwe

reached a high of 106% (POTRAZ, 2014:6). The following figure 1.2 shows the general trend of mobile phone penetration from the first quarter of 2013 to the first quarter of 2014.
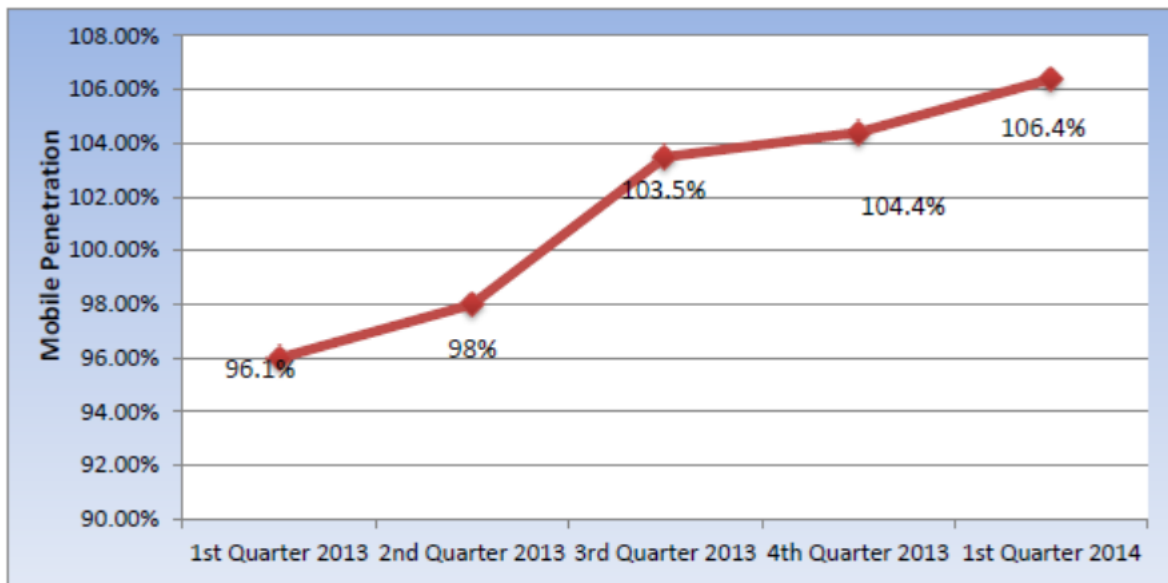
Fig. 1.2 Mobile phone penetration. Source: POTRAZ, Operator Returns (2014:4)

From these statistics it can be observed that there is no proportional relationship between the rate of mobile phone penetration and mobile phone banking penetration. Such exponential growth in penetration presents enticing propositions for marketing and business (Shambare, 2011:2). This observation is further supported by Tobbin (2012:74) who acknowledges that many people in the rural areas possess more mobile phones than bank accounts but they remain largely marginalised and therefore continue to be excluded from active economic participation resulting in increased poverty and loss of possible wealth. The proliferation of a wide range of different cell phones has been observed to improve cell phone banking (Brown *et al*., 2003), but these claims have not been verified and tested (Shambare, 2011:2).

In Zimbabwe the uptake of mobile banking itself is very low. Research indicated that in 2013 mobile banking adoption in Zimbabwe was around 8% of the population on a weekly basis, while the ATM was the most widely used channel on a weekly basis at 32%, traditional branches at 27%, 11% use of internet banking weekly, the point of sale banking was at 17% and the mobile payments was pegged at 2% (KPMG, 2013:89). The rural consumers are only slowly adopting mobile banking products possibly due to poor marketing efforts targeting this group or a lack of financial education to promote their adoption in the rural areas. This is worsened by the depleted market confidence and trust in the traditional banking sector. Mobile banking services are still in their infancy in rural Zimbabwe, leaving a very big room for development.

Mobile banking faces a great deal of challenges in Zimbabwe. Information technology literacy and languages of using mobile phones for banking are barriers since rural consumers just know them for communication purposes. Therefore, they have no idea about how mobile banking is done and even the existing urban customers in Zimbabwe do not have an explicit idea about the possible benefits of mobile banking. Security and trust are very significant in m-banking but rural people hold doubts about its security and trustworthiness. This calls for the need to understand rural unbanked consumer's intention to adopt mobile banking and to identify the marketing mix variables that influence their intentions to adopt mobile banking.

Zimbabwe's low level of financial literacy (24% according to the Centre for Financial Literacy, 2013) is a significant barrier to accessing and properly using formal banking services. Although the Securities Commission of Zimbabwe is tasked to conduct workshops, expos, consumer education programmes, and to prepare financial literacy materials targeted towards schools and the general population in the communities, its promotional efforts are not effective as shown by the low financial literacy rates (Messy and Monticone, 2012:41). The Centre for Financial Literacy (2013) noted that, though these financial education initiatives may be commendable, they are poorly coordinated, have only limited outreach and leave vast gaps for the unbanked population. Zimbabwe is proud of being ranked the best in Africa in literacy with a level of 91% (United Nations Development Programme (UNDP), 2010) but not in financial literacy as compared to other countries in Africa (Masvora, 2014).

Due to the galloping inflation that was experienced in 2003-2008, the launch of mobile banking started with high tariffs making the m-banking service expensive. These tariffs were not well controlled because the government did not understand the model well. The tariff regulation is important if technology acceptance among the unbanked is to be ensured (GSM Association, 2008). Despite the considerable effort being put into place by Econet, Telecel, and Netone companies in marketing mobile banking services to both urban and rural residents, the rural people have still remained largely unbanked, thus resulting in their continued exclusion from financial banking activities and economic participation. The RBZ reported that about 51% of rural people were unbanked against 18% urban unbanked people (The Zimbabwean Mail, March 20, 2014). By studying the attitude of the rural unbanked, this research is expected to yield more unknown information about the factors that motivate and inhibit financial inclusion and how best mobile phones may be utilised to capitalise on the promises brought by mobile banking.

Financial exclusion continues to feature at the top of the national socio-economic agenda in Zimbabwe. However, analysts such as Chakrabarty (2011) lament and regret that the whole discourse surrounding financial inclusion has spawned tremendous heat and sound with little light, indicating that nothing is being done about it. In addition, the argument raised by Brown *et al.* (2003) cited in

Shambare (2011:2) that an intensified differentiation in mobile phones improves cell phone banking adoption, such claims still remain unverified and untested. Up until now in Zimbabwe, little has been known about the reach of the financial services sector. In fact, the extent and degree to which the poor are excluded from the formal financial systems and systematic metrics of the use of various financial services had been lacking from the Zimbabwean economy. There is a lack of marketing oriented data on the rural unbanked's use of financial services and this research is expected to fill this gap in the lack of financial inclusion data landscape. This study seeks to understand the individual and marketing environmental dynamics influencing the uptake of mobile money.

The gaps discovered are to be bridged through publishing of more than four papers from this work. The knowledge gap is to be closed by sharing the findings of this study at conferences and seminars. All the above indicators therefore lead to the statement of the problem given below. The research is committed to supporting mobile banking by accelerating learning, relevant information dissemination and the promotion of mobile banking knowledge to the rural unbanked consumers and mobile operators. This will go a long way in bridging the gap by bringing the unbanked consumers into mainstream banking.

1.3 MOTIVATION FOR THE STUDY

Due to the paucity of research in Zimbabwe to ascertain such factors noted in the discussion above, the researcher has been motivated to investigate these issues. There are several studies that examine and address mobile banking adoption by the banked and under-banked as an additive channel-alternative channel to existing bank accounts (Poteous, 2006; Tobbin, 2012; Mulwa and Ndati, 2013), but the unbanked have been overlooked. The research on this market segment is scanty because traditional banks have felt that the rural unbanked consumers are costly to serve and therefore a less profitable market segment. One of the contemporary issues in technology adoption is that of exploring and identifying critical success determinants that influence rural unbanked people to accept or reject the mobile banking innovation.

The researcher is motivated to pursue the adoption of mobile banking because of various gaps that have been identified in this discussion. Various theories have been propounded and merged to improve the predictability of consumer behaviour to adopt technology in the developed world (Davis, 1989; Mattila, 2003; Venkatesh *et al*., 2003; Laforet and Li, 2005; Puschel *et al*., 2010) but with little conducted research in developing countries like Zimbabwe. As far as the unbanked consumers are concerned, there are several marketing questions that should be answered if the unbanked consumers are to be formally included.

However, despite the growth in informal institutions serving the unbanked, there is still inadequate understanding of the characteristics, needs, wants, and preferences of this population, thereby forcing the researcher, and him developing the curiosity, to study their attitude in Zimbabwe.

The proliferation of mobile phones that have facilitated mobile banking in other countries in Sub-Saharan Africa with worrisomely low uptake in Zimbabwe, has motivated the researcher again to look into the attitudinal and behavioural resistance by the rural unbanked as several factors explain the low tendency towards adoption. Borrowing from Bångens and Söderberg (2008:7), this topical study is interesting and motivating because:

"M-banking access amongst previously unbanked groups is believed to have a direct, positive effect on users, positively affect a transition from informal to formal transactions and hence alleviate poverty and add lubricant to the overall economic development machinery."

All the above indicators therefore lead to the following statement of the problem.

1.4 STATEMENT OF THE PROBLEM

The acceptability of mobile phone banking in Zimbabwe by the rural unbanked can only be viable if the factors that influence the adoption of the technology are critically analysed. It is imperative to evaluate how mobile phone banking would enhance the country to achieve its goals of financial inclusion as enshrined in the Zimbabwe Agenda for Sustainable Socio-Economic Transformation (ZIMASSET) through Information and Communication Technology. Econet, Telecel and Netone companies are making considerable efforts to strongly market mobile banking to both urban and rural residents but the rural people have substantially remained unbanked resulting in their continued exclusion financially. The significant failures of mobile banking adoption in some countries have made the prediction of rural unbanked people's attitude towards mobile banking (m-banking) difficult. In the same vein, Zimbabwe may not be an exception. Therefore, the preparedness of the rural unbanked people's opinions to adopt mobile banking needs be examined.

The lack of marketing knowledge and education about the rural unbanked people's behaviour towards cell phone banking (mobile banking) really impedes the promises this type of banking model is able to provide in order to financially include and activate economically the rural people. If this study is not carried out, the rural unbanked shall remain more vulnerable to poverty and marginalisation and rural Zimbabwe would potentially remain more underdeveloped than Kenya and South Africa who have notably transformed the rural life of the unbanked consumers by using mobile phones to bank them. Again, financial services providers are likely to lose potential revenue or the capital base from possible deposits by the rural unbanked consumers and possible profits from this great chunk of untapped market segment.

Therefore this statement guides this study: The extension of mobile banking through the effective management of the marketing mix to the rural areas and exploring the determinants influencing m-banking may lead to increased financial inclusion of the rural unbanked in Zimbabwe. Therefore, it is hoped that the hindrances to mobile banking adoption by the rural unbanked may be overcome partially if banking services are delivered via mobile phones.

1.5 MAIN RESEARCH QUESTION

Can the extension to and adoption of mobile banking services by the rural unbanked through effective use of the marketing mix tools lead to increased financial inclusion in Zimbabwe?

1.6 PURPOSE OF THE STUDY

The purpose of this study is to examine critically the trends in adoption, use and marketing mix determinants that influence the adoption of and user rates of mobile telephone banking among the rural unbanked consumers in Masvingo province. Again, it further explores how the emergence of mobile money service influences how rural unbanked consumers may engage and interact with financial institutions. Recommendations are made to relevant stakeholders about how to formulate policies and strategies that may be implemented to improve financial inclusion given the existence, ubiquity and convenience of mobile banking vehicles to reach the unbanked consumers.

1.7 RESEARCH OBJECTIVES

The study seeks to address the following objectives:

(1) To find out the effect of financial product or service attributes on attitude to adopt mobile banking among the rural unbanked.
(2) To establish the impact of price satisfaction dimensions on attitude to adopt mobile banking by the rural unbanked.
(3) To determine the influence of digital place elements on attitude to adopt mobile banking among the rural unbaked people.
(4) To ascertain the effect of promotional tools on attitude to accept mobile phone banking by the rural unbanked people.

(5) To determine the influence of attitude on behavioural intention to adopt mobile banking by the rural unbanked people.

1.8 RESEARCH QUESTIONS

(1) Do financial products or service attributes have an effect on attitude to adopt mobile banking by the rural unbanked consumers?

(2) What is the impact of price satisfaction dimensions on attitude to adopt mobile banking by the rural unbanked consumers?

(3) Do distribution or place elements have an effect on attitude to adopt mobile banking by the rural unbanked consumers?

(4) What is the influence of promotional tools on attitude to adopt mobile banking by the rural unbanked consumers?

(5) Is there any relationship between attitude and behavioural intention to adopt mobile banking by the rural unbanked consumers?

1.9 HYPOTHESES

Based on the review of related literature, a set of research hypotheses which guide the conceptual model have been formulated as follows.

1.9.1 Financial product related hypotheses: H1

H1a: Perceived usefulness has a positive influence on attitude to adopt mobile banking by the rural unbanked consumers.

H1b: Perceived ease of use has a positive influence on attitude to adopt mobile banking by the rural unbanked consumers.

H1c: Service trialability has a positive influence on the attitude to adopt mobile banking by the rural unbanked consumers.

H1d: Accuracy of the mobile system has a positive influence on mobile banking adoption by the rural unbanked consumers.

1.9.2 Price related hypotheses: H2

H2a: Price transparency has a positive influence on attitude to adopt mobile banking by the rural unbanked consumers.

H2b: Price-quality ratio has a positive influence on attitude to adopt mobile banking by the rural unbanked consumers.

H2c: Perceived costs have a negative influence on attitude to adopt mobile banking by the rural unbanked consumers.

H2d: Price reliability has a positive influence on attitude to adopt mobile banking by the rural unbanked consumers.

1.9.3 Digital place related hypotheses: H3

H3a. Trust has a positive influence on attitude to adopt mobile banking by the rural unbanked consumers.

H3b: Network coverage has a positive influence on attitude to adopt mobile banking by the rural unbanked consumers.

H3c: Distribution dependability has a positive influence on attitude to adopt mobile banking by the rural unbanked consumers.

H3d: Service convenience has a positive influence on attitude to adopt mobile banking by the rural unbanked consumers.

1.9.4 Promotion related hypotheses: H4

H4a: Advertising has a positive influence on attitude to adopt mobile banking by the rural unbanked consumers.

H4b: Personal selling has a positive influence on attitude to adopt mobile banking by the rural unbanked consumers.

H4c: Financial education has a positive influence on attitude to adopt mobile banking by the rural unbanked consumers.

1.9.5 Attitude related hypothesis: H5

H5: Attitude has a positive influence on behavioural intention to adopt mobile banking by the rural unbanked consumers.

1.10 SIGINIFICANCE AND VALUE OF THE STUDY

The Journal of Consumer Marketing, a subsidiary of Emerald Publishing Group, asserts that "Consumption is a key element of much of human behaviour and understanding consumer behaviour is the key to creating effective marketing strategies". With this assertion in mind, a considerable number of the following stakeholders would hopefully benefit from this study.

1.10.1 The Zimbabwean government

The government will benefit in that if more people are financially included, more revenue will be raised since transactions done via mobile phones are now subjected to 5% taxation. The objective of national economic development will be enhanced since mobile banking has an economic and transformational effect on the rural unbanked. It is also hoped that this study will help the government to promote the adoption of Information Communication as enshrined in the Zimbabwe Agenda for Sustainable Socio-Economic Transformation (ZIMASSET).

The government would benefit from this study since it requires information based evidence from the financial sector and levels of inclusion and the conduct of this research will contribute knowledge towards this goal. The discourse on financial inclusion in socio-economic meetings will be enhanced if the results of this study are well scrutinised.

1.10.2 The unbanked consumers

The unbanked will significantly benefit in that they will become economically active thus increasing their wealth since access to well-designed financial services can help poor households to build assets, engage more effectively in market, get loans easily, and reduce their vulnerability to crisis. If the results of this study are implemented, the gap between the rural banked and unbanked will be reduced. It is hoped that mobile banking would transform the lives of the rural people through the transformational power enshrined in this innovative model of banking.

If mobile banking is well embraced, the challenges of moving with large amounts of cash over long distances raising security risks, problems of collateral security when opening an account with brick and mortar banks and required minimum balances, will be dealt with positively.

1.10.3 Financial services providers

It is hoped that financial service providers for example EcoCash, Telecash, Netcash, and all local commercial banks, would benefit in that a thorough analysis of essential and critical variables that impact acceptance of cell phone banking will help them identify target markets, position new services accurately and design more effective and efficient communication, pricing and distribution strategies. It is hoped that the financial services sector will benefit in that it will bring a broad knowledge about understanding the behaviour of consumers when they accept cell phone banking and adds to the academic research about the understanding of technology acceptance and economic development of the marginalised. If an organisation wants to effectively and efficiently implement a mobile banking system, it should analyse the behaviour and attitude of the local market in detail and evaluate critically why people respond to a mobile banking model in the manner they do.

The unbanked constitute an untapped market once ignored by the traditional banks because they felt that this segment was costly to serve and therefore unprofitable. Customised niche marketing strategies will help to effectively serve this market segment and more capital is likely to be raised from the deposits made as mobile banking is more cost effective.

1.10.4 The Researcher

The researcher will understand social change process more accurately if the spread of new ideas is followed over time as it courses through the structure of the rural Zimbabwean social systems. The researcher feels that completion of this study will provide him with the basis to make a follow up on the adoption of mobile banking in further studies. It is hoped that the research skills attained from this study will enhance academic consultancy in the field of bank marketing and the marketing of financial services.

1.10.5 University of KwaZulu-Natal

The University should benefit, since this research work is going to be made available to the library for further reference by postgraduate students. South African banks may benefit if they consult the University on the findings of this study since the library is mandated to publish any material from this work.

1.11   ASSUMPTIONS

- ➢ All rural people have cell phones but some are unbanked.
- ➢ Many people in rural Zimbabwe can read and write but have little financial education.
- ➢ Participants will actively participate given the curiosity in new technology.

1.12 DELIMITATIONS OF THE STUDY

The study was conducted in Masvingo province, a province that borders with Midlands, Matebeleland, Manicaland, and Limpopo province of South Africa, and part of the west of Mozambique. The study focused only on rural people who are not formally served by traditional banks but possess cell phones in Masvingo province. However, rural people engaged in mobile money transactions conducted by local mobile network operators but not linked to any traditional banks, also participated in this study. The banked and the under-banked consumers did not form part of the study. Literature boundaries were based only on mobile banking adoption theories, financial exclusion, financial inclusion, marketing mix elements and the targeted rural unbanked market segment.

1.13 LIMITATIONS OF THE STUDY

The present study was restricted to Masvingo province only focusing on five districts due to limited time and financial resources. In a bid to mitigate the financial constraints, the researcher applied and obtained a research grant to supplement the meagre financial resources earmarked for this study by the researcher. On the issue of time, the researcher resided in Zimbabwe for four months in order to collect data. The researcher focused on only five districts out of the seven in Masvingo province, namely: Bikita, Chiredzi, Masvingo rural, Gutu, and Zaka. The rural unbanked formed the study sample because there were more unbanked consumers in rural areas than in urban set ups (FinScope, 2011).

1.14 JUSTIFICATION FOR THE STUDY

The proposed research is worthwhile and necessary to be undertaken by the researcher because the extreme and rapid increase in mobile telecommunications technology has resulted in cell phones becoming increasingly ubiquitous and accessible to people in the remote parts of Zimbabwe, but surprisingly the rural people have remained unbanked despite the fact that mobile phones provide the gateway for channelling banking services. The exclusion of the rural unbanked from banking facilities has resulted in this market segment failing to participate economically thus worsening the poverty of these people. Tchouassi (2012:70) aptly contends that "poverty and vulnerability are still massive and deeply rooted" and the processes that "lead to financial exclusion and marginalisation" of huge Zimbabwean societal market segments are still thriving, which is a big number of the rural unbanked. So these people need be included in economic participation in order to transform their lives.

In addition, the adoption of mobile banking in the remote areas of Zimbabwe has been regarded as being slow compared to other African countries (FBC Securities Report, 2013). Numerous pieces of research (Brown *et al.*, 2003; Lee *et al.*, 2003; Luarn and Lin, 2005; Tobbin, 2012; Chitungo and Munongo, 2013) in various developing countries have been done in order to ascertain why the diffusion of mobile banking is below expectations. Therefore, it is worthwhile to make a close and painstaking examination of the various factors that influence the resistance to accepting cell phone banking among the rural communities in Zimbabwe.

Loudon and Bitta (1993) advance an argument that the rate of adoption may represent a change in consumption patterns and that the trend is essential to marketers, public policy makers and consumer researchers. In view of this, the research is worth undertaking given that Bankable Frontier Associates (2010) note that policy makers and developmental agencies have been looking for measures that will increase access to financial services by the rural unbanked and mobile banking has the solution.

Failure to conduct this proposed study would mean that the promises of mobile banking adoption will not be realised, resulting in policy makers failing to have a correct basis to make economic policies

and decisions about the marginalised and these unbanked may continue to be excluded. If this research is not carried out, the unbanked may continue to remain unbanked and thus be denied their right to economic participation. Again, the financial services providers will miss out on the potential of a raised capital base through deposits by the unbanked, and possibly the profits since mobile banking is more cost effective. Overall, this study is therefore relevant because if all the factors of adoption do not positively contribute to the adoption of mobile banking in Zimbabwe, then mobile banking may have reduced acceptance.

1.15 STRUCTURE OF THE THESIS

Chapter 2 focuses on financial exclusion, financial inclusion and mobile banking. This chapter defines financial exclusion and inclusion and critically examines the drivers of these concepts. The opportunity costs of financial exclusion and the benefits of financial inclusion are also highlighted. Traditional banking and mobile banking will be differentiated. This will lead to the evolution and use of mobile banking as a model of financial inclusion, its benefits and challenges in its implementation. A focus on the models of mobile banking will be pursued. The chapter realises the relationships between marketing mix elements and unbanked consumer behaviour. Relationships among the financial product, price, digital place, and promotion with attitude and behavioural intention are highlighted.

Chapter 3 views perspectives of marketing mix and mobile banking adoption. These are theoretical foundations, conceptual frameworks and the empirical studies which underpin this study. The Innovation Diffusion Theory (IDT) by Rogers (1995), the theory of the Technology Acceptance Model by Davis (1989) and the Marketing Mix conceptual framework by McCarthy (1964) are critically evaluated.

Chapter 5 covers the research methodology used to make this study a reality. It covers the research design, research approaches, the population, sample and sampling procedures, research instruments, data collection procedure, data analysis, and the measurement scales.

Chapter 6 focuses on the presentation of results and data analysis. Data is presented in tables, figures, and text for easy interpretation by possible users. Regression models basing on the relationships developed from this study will be presented. Statistical inferences and hypothesis testing will be done in this chapter.

Chapter 7 involves the discussion of the results presented in the previous chapter. It discusses both the known and the unknown information. It therefore links literature review and the findings.

Chapter 8 focuses on conclusions, summary, and recommendations. It spells out the extent to which the objectives have been achieved and recommendations are made to specific stakeholders, discusses the scholarly contributions to theory and marketing practice, and further research is proposed.

1.16 CHAPTER SUMMARY

This chapter discussed the challenges and problems that characterise this study in the background. A number of motivating factors have been identified while strategies to close the gaps have been dealt with. This chapter saw the manifestations of problems associated with this research being crystallised into a meaningful research problem and objectives and hypotheses were clearly spelt out. The purpose, objectives and hypotheses have been clearly highlighted while the theoretical and practical significance of the study have been discussed. The study site has been indicated as Masvingo and the contribution of this study to the body of knowledge has been clearly spelt out. Terms in the topic have been provided and the chapter closed focusing on the structure of the whole thesis. Given the paucity of research that has been conducted on the influence of marketing variables on mobile banking to financially include the rural unbanked in the financial mainstream as opposed to considerable studies on marketing efforts towards the banked and underbanked, this research is expected to yield meaningful contribution towards the body of knowledge regarding marketing mix elements' impact on reducing resistance towards mobile banking innovation acceptance. The next chapter takes the reader through financial exclusion, financial inclusion, mobile banking and the influence of marketing mix elements on attitude and behavioural intention to adopt mobile banking.

CHAPTER 2

TRADITIONAL BANKING, MOBILE BANKING AND THE MARKETING MIX

2.1 INTRODUCTION

This chapter discusses in general the nature and current state of mobile banking provisions and the rural unbanked in the world and in Zimbabwe in particular. It considers the lateral connectivity from financial exclusion to financial inclusion through mobile banking. The definitions of rural unbanked, traditional banking, mobile banking and marketing mix are considered. Financial exclusion and inclusion will be differentiated and the inhibitors and drivers of financial exclusion also highlighted. The chapter discusses the evolution of mobile banking and evaluates critically the mobile banking models available in Zimbabwe. Due to the complexity and ubiquity of this banking approach, the chapter also focuses on the colossal challenges and opportunities in the mobile banking industry and attempts to show how mobile banking may be promoted. Consumer attitude and behavioural intention and the purchase decision making process are also examined. The marketing mix section attempts to analyse the relationships that exist between financial products, price, the digital place and promotion, and the rural unbanked people's attitude and behaviour towards mobile banking. The chapter discusses how marketing mix variables influence the behaviour of the rural people towards adopting mobile banking. The chapter concludes by making a critical review of the issues identified and discussed and introduces the reader to the coming chapter on theoretical and conceptual frameworks.

2.2 DEFINITION OF TERMS

2.2.1 Rural unbanked

Medhi *et al*. (2009:1) define the unbanked as "people without formal bank accounts who operate in a cash economy; they are limited in their ability to take out loans, maintain savings, or make remote payments, and these constraints can inhibit their economic opportunities". To this definition, Tobbin (2012) adds that rural unbanked people are those without a formal financial institution. These rural people have the need to save and transmit their financial resources regularly but are restricted from the formal banking system (Jeneker *et al.,* 2012:7). The rural unbanked include low income earners, the unemployed, informal traders, self-employed and unorganised enterprises, cash recipients through remittances from the diasporians, the youth, the socially excluded and elderly rural people (Thorat, 2007:1167; Jeneker *et al*., 2012; Tobbin, 2012). However, Bandyopadhyay (2009:1) argues that the unbanked people are not the poorest of the poor in Zimbabwe, for they may include micro-business people, employees of private companies and traders who do not possess bank accounts but are suffering from unmet financial needs. Finscope (2011) defines the unbanked as a market segment that comprises individuals managing their financial lives without using any financial products. From these

definitions and observations, a working definition of the rural unbanked is therefore a segment of the population in the rural society that does not possess any bank accounts due to a number of reasons, but are yet a silent mass of active and potential economic participants of the population.

2.2.2 Financial exclusion

McKillop and Wilson (2007:9) define financial exclusion as the complexities, problems and reluctant behaviour by a segment of the population to have access to mainstream financial services in an economy. Put differently, financial exclusion is the failure to deliver financial and banking services to sections of disadvantaged, vulnerable, and low-income segments of society at affordable costs (Link *et al*., 2004). An Australian definition of financial exclusion as cited by Chant Link and Associates (2004:5) is "lack of access by certain consumers to appropriate low cost, fair and safe financial products and services from mainstream providers". Financial exclusion especially becomes an issue when it applies to the rural low income consumers. The unbanked people's lower access to finance has led many researchers to query whether the rural unbanked people are really discriminated against in the money market (Burges and Pande, 2005; Masinge, 2010; Tobbin, 2012) and whether poverty plays a role in financial exclusion. This remains an under-researched area.

Figures from empirical research show a pathetic level of financial exclusion around the world. It is reported that more than 2.5 billion adults of the world's population is unbanked (World Bank, 2014). Financial exclusion is high in rural areas in Zimbabwe presumably due to limited accessibility to banks, lack of knowledge and education about banking systems, lack of suitable documentation, a negative attitude towards banking services, and lack of money (Lyons and Scherpf, 2004; Finscope, 2011; Tobbin, 2012). Furthermore, Finscope (2011) reports that in the Southern African Development Community region, South Africa leads with a 63% banked population, with Nambia second at 62%, while Swaziland stands at 44%, and Botswana at 41%. Given these high figures, Zimbabwe has a remarkably low and pathetic banking rate of 24%. Klapper and Demirguc-Kunt (2012) observe that in sub-Saharan Africa the rate of financial exclusion is around 76% and it is noted that this exclusion is exceptionally high amongst women, the youth and the very poorest market segments in the community (Allan *et al*., 2014). Rural banking in Zimbabwe is a topical issue that suffers from scanty research (Matunhu and Mago, 2013:44) and yet financial inclusion is very low in the country (Finmark, 2011). More information on financial exclusion and inclusion is given in the following figure 2.1.
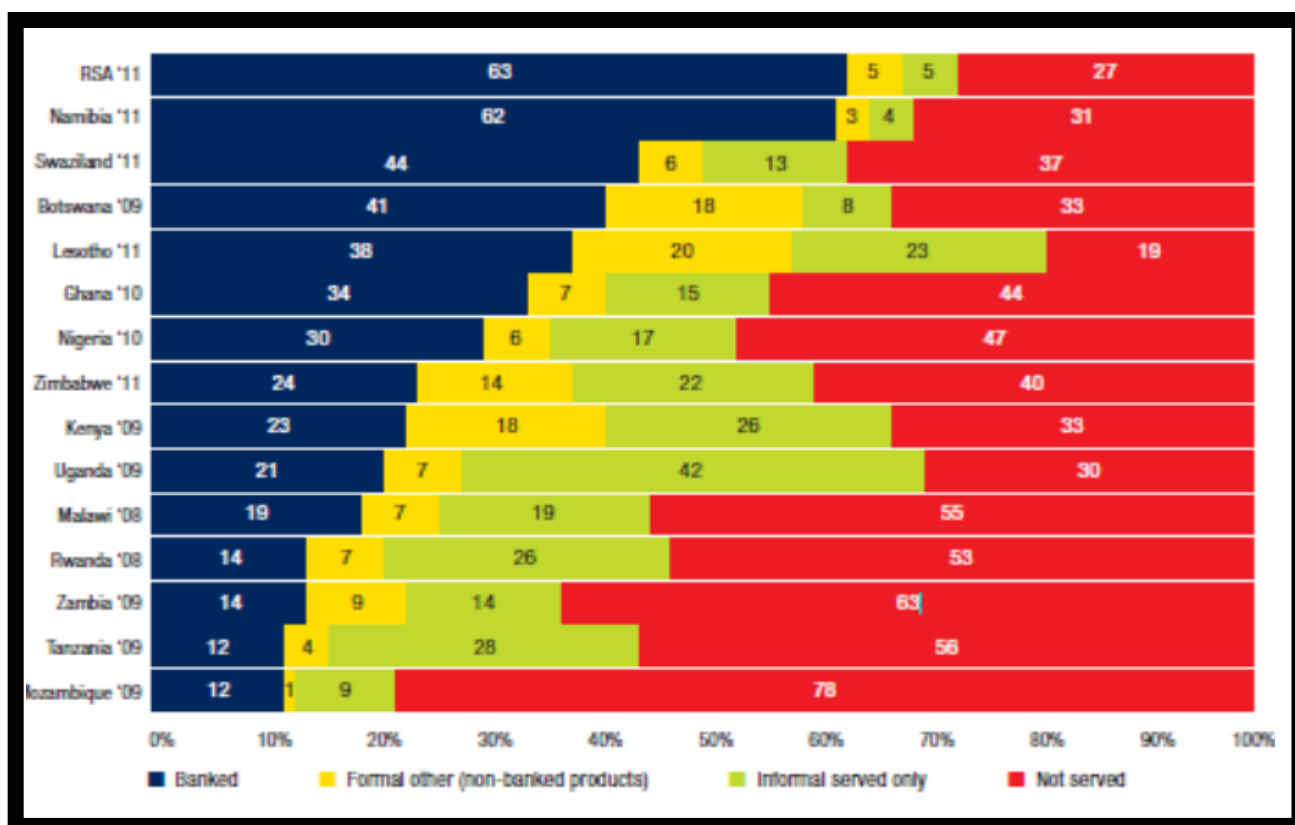
Fig. 2.1 Financial exclusion and inclusion in Africa. Source: Finscope survey (2012)

Figure 2.1 indicates that South Africa leads in terms of financial inclusion with 63% while Mozambique is the least with a 12 % inclusion rate. Zimbabwe is among the lowly rated countries in terms of financial inclusion with a rate of 24% inclusion.

2.2.3 Forms of financial exclusion

Voluntary exclusion refers to the unbanked market segment who choose not to use financial services because they do not need those services due to the lack of promising projects, while involuntary lack of participation is caused by the unavailability or unaffordability of financial services (Munyanyi, 2014:256). Korczak (2004:7) observed that the unbanked are financially excluded because they cannot access information and financial services about opening bank accounts. Price exclusion is a form of financial exclusion that only allows the unbanked to have access to financial products and services they are able to afford (Munyanyi, 2014:256) while some conditionally exclude themselves as the strides attached to financial products make them not suitable for the needs of the unbanked. However, it must be noted that some unbanked people self-exclude by withdrawing from social and financial life because of fear of the unknown, social resignation and shame. Another form is where the unbanked are compulsorily evicted or excluded from social life by creditors' sanctions, for the credit worthiness of the unbanked consumers is unknown.

2.3 TRADITIONAL BANKING

2.3.1 Defining Traditional Banking

Banking is a commercial business that is conducted by a bank through offering financial products and services. Generally, banking is a function whereby banks accept and safeguard money owned by other individuals and business organisations who then lend out the money to generate profit. A better banking system would be simpler, safer, smaller, more diverse and more reliable.

Beardshaw *et al*., (2001:497) posits that traditional banks are viewed as financial intermediaries or institutions which channel funds from lenders to borrowers. These may be classified as commercial banks whose main motive is to make profit while savings banks are designed to encourage small savers and they often do not make significant profits. Building societies are special financial institutions that assist home seekers and these are often given privileges over other types of banks by the state (Baerdshaw *et al*., 2001:498). Taylor (1995) describes traditional banks as financial institutions which accept deposits from people who have excess funds and who want to earn interest, they lend the money to individuals requesting money and who are prepared to pay interest on the borrowed funds. A traditional bank is a brick and mortar banking system in which the customers and banking staff physically interact on the service encounter. Llewellyn (1999) states that the traditional banks are viewed as financial intermediaries that accept deposits and make loans, or acquire assets that will generate income for the business. He adds that these banks possess monopoly power and they have comparative advantages in providing services. The distinctions amongst the stated types of banks have been blurred by demands of technology and the government regulations (Taylor, 1995:826). This view leads to the need for this study to investigate the changes that have been dictated by technology leading to the migration of financial consumers from traditional banking to a new channel of financial delivery.

A consumer of financial products opens any bank account in banking halls and uses the facility to save money by making deposits. The client can withdraw the money by cheque, counter payment or through bank draft. There is a physical touch among the customers themselves, as well as customers interacting with frontline staff and bank managers to obtain services. Many banks have been deep in discourse on whether or not to add mobile banking channels for they were afraid of channel conflict with their agents that are offline. Adding mobile banking as a new channel poses a plethora of problems especially on how to sell through traditional and modern means.

2.3.2 Functions of banks

Beardshaw *et al.,* (2001:498) identify the following functions of traditional banks:

1. Credit creation: Banks compete in the financial value chain in order to attract deposits and loan out money at reasonable interest in order to get profits.

2. Transmission of money: Money is transmitted through clearing cheques written by customers with bank accounts to pay their creditors. Credit cards are also used as a payment tool and are used by customers to obtain credit. The traditional banks offer debit cards which debit the customer's account with the amount of the transaction involved.

3. Advisory services: The traditional banks offer clients advice on trusteeship, foreign exchange rates, investment and taxation management services.

4. Other financial products: The banks offer additional products such as mortgages and insurance to help improve their revenue by cross-selling.

2.3.3 Traditional bank accounts requirements

The following is a table prepared by Dermish *et al.* (2012:63) which shows banking fees and account opening requirements in Zimbabwe.

Table 2.1. Banking fees and account opening requirements.

Banks	CABS	POSB	AGRIBANK	STANBIC BANK	CBZ	KINGDOM CellCard	EcoCash	TextaCash	e-Mail
Documents required to open an account	Proof of residence, copy of ID, Passport photos	Proof of residence, copy of ID, Passport photos	Proof of residence, copy of ID, 2 Passport photos	Proof of residence, copy of ID, Passport photos. Minimum salary of USD300	Proof of residence, copy of ID, 2 Passport photos, pay slip	Copy of ID, registered cellphone/ $5 deposit	Copy of ID, registered cellphone	Copy of ID, registered cellphone	Copy of ID, registered cellphone
Minimum balance required to open an account	$5.00 Blue Card/ $25 Gold Card	$10.00	$10.00	$5.00	$5.00	$0	$5.00	NILL	NILL
ATM withdrawal	$1	1.5%	1% Minimum of $3/$25	1%	$1	$1	3% registered user, Free Non Registered User	0.01	0.25
POS Purchase	$0.15	1.5%	0.5%up to maximum $10	$0.00/Zim Switch charge	$0.1	$0.30	N/A	$0.08	$0.10

Source: Adapted from Dermish *et al*., (2012:63).Mapping the Retail Payment Services Landscape in Zimbabwe. Bankable Frontier Associates.

2.3.4 Benefits of Traditional Banks

1. Traditional banks ensure physical interaction between the customer and the bank staff and management meaning that what they see is what they get unlike under mobile banking where the physical touch is missing.

2. Financial consumers have increased security for their money since they obtain a hard copy of their transactions from the teller or ATMs.

3. The money of the depositors is safeguarded since there are surveillance cameras and security guards on duty.

21

4. The existence of ATMs means that customers can access the money any time of the day, although they do have to visit the Teller Machine.

Despite these advantages, traditional banking has been rocked by a number of challenges that have impeded financial inclusion of the rural people and these are as discussed in the next pages.

2.4 DRIVERS OF FINANCIAL EXCLUSION

The demands of traditional banks have resulted in rural people being excluded from the formal banking services due a plethora of impediments (Demirgüç-Kunt and Klapper, 2013) which are generally agreed and discussed below as demand and supply based. Voluntary exclusion refers to the segment of the population that choose not to use financial services either because they do not need those services due to lack of promising projects while involuntary exclusion involves lack of participation caused by unavailability or unaffordability of financial services. The following motivators of financial exclusion are both demand-led and supply-led as reflected in the traditional way of banking.

2.4.1 Demand-led Drivers

2.4.1.1 Unemployment and low income

Low levels of income discourage the rural people from savings as the money is not adequate to meet their basic needs. Klapper and Demirguc-Kunt (2012) report that around the world, 30% of the population without bank accounts agree that lack of income and unpredictable incomes mainly contributed towards their being unbanked. The unbanked consumers are dissuaded by irregular and unreliable cash flows (Allan *et al*, 2013:14). As such, the formal banks have struggled to get a business case for reaching the poorest people given the expectations of their shareholders and the objective to make adequate profit margins (Allan *et al*., 2013:3).

2.4.1.2 Financial illiteracy and trust

Jeneker *et al*. (2012:10) and Allan *et al*. (2013:5) view the rural unbanked as people who are uneducated about banking services which causes them not to choose to use the available banking products for their financial needs. Financial products encompass a high degree of technical innovativeness and clients need be educated about how to interact with them. The G20 and Financial Inclusion (2011) observed that poor financial literacy presented a great barrier, because it limits the unbanked people's capacity to be aware of financial opportunities, to make informed choices and to

use effective strategies to improve their financial well-being (Allan *et al*., 2013:9). New technologies have the tendency to create technophobia among the prospective users because of illiteracy and so they may be intimidated to use those (Jeneker *et al*., 2012). Therefore, a number of gaps exist in rural people's knowledge and information about available financial products and financial institutions, and about the source of the information. It must be noted that for users to develop trust there is a need to inform and educate the users so that they develop positive confidence and trust in the financial products. However, research has proved that financial literacy drives in South Africa for Mzansi initiatives failed to register any strong impact to avert this barrier (Jeneker *et al*., 2012).

2.4.1.3 Lack of documentation

This barrier is linked to a lack of real estate security and it makes lenders reluctant to give loans to the poor. In developing countries, the rural unbanked lack secured creditor's rights and this has limited bank outreach to the low income market segment. Countries such as Cameroon, Chad, Trinidad and Zimbabwe require at least four documents that include an identity card, a recommendation letter from the employer, proof of residence, passport photos, and a pay slip. However, only a few people can afford or produce these as most of them work in the informal sector where pay slips are rarely issued (Beck *et al*., 2007). With this high degree of informality in many developing countries, just a small proportion of the population can produce these documents (Beck *et al*., 2007). If traditional banks insist on the production of the listed documents, then many people stand to be excluded from the access to finance.

2.4.2 Supply-led Drivers

2.4.2.1 Lack of appropriate financial products

Lack of appropriate products and services for low-income households is an important barrier to accessing financial services (FinScope, 2011). Financial products that have been available to the market were more sophisticated and meant for the minority of affluent consumers (Leyshon and Thrift, 1994). It means that no efforts have been made to develop new products earmarked for low income groups (Kempson *et al*., 2000). In support of this, Bayliss (1997) concluded that the banking industry was thinking of products not people. Normally low income earners demand short term credits to make ends meet, but banks do not supply products that are matched for such needs. Several studies indicate that there is a lack of financial products that meet the Islamic teachings which forbid the receipt or payment of interest (Kempson, 1999; Kempson e*t al*., 2000).

2.4.2.2 Geographical remoteness or long distance

Remoteness is considered a barrier in that the rural people stay in unreachable places which make the extension of financial products difficult (Aaker, 2011; Finscope, 2011; Tobbin, 2012; Reserve Bank of Zimbabwe, 2013). Banks feel that it is costly to widen their branch networks as they fail to recoup their investments as the rural unbanked people have low or no incomes to bank. Demiguc-Kunt and Klapper (2013) from their study noted that 25% of non-account users in Africa cited long distance in order to reach a physical bank branch, as a barrier to having a formal account. Beck *et al*., (2007:9) observe that the geographical distance to the nearest branch or the density of branches relative to population size, provides a guide to financial access. For example, in Ethiopia, research has concluded that there is less than one branch per 100 000, whereas in Spain there are 96 per 100 000 people (Beck *et al*., 2007:9). Given this manifestation, there is a correlation between distance and usage ratios which reflects that geographical distance influences positive financial access. Evidence for this correlation is supported by financial inclusion being positively and significantly correlated with access points measured in commercial bank branches per 100,000 people (Figure 2.2). Sub-Saharan Africa economies are at the low end of the spectrum, with low number of commercial bank branches per 100,000 adults and low account penetration.
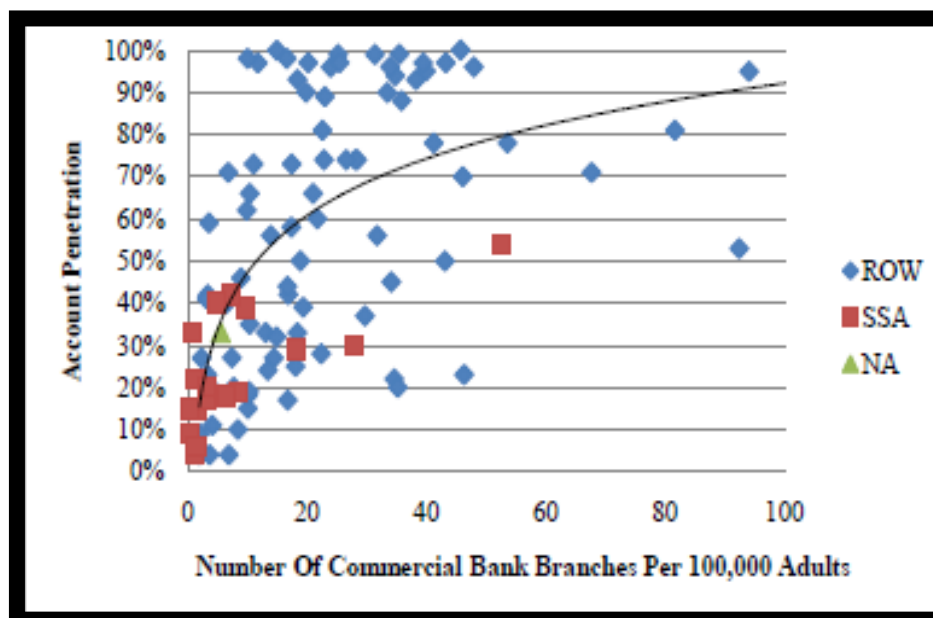
Fig.2.2 Financial use versus access points. *Source*: Demirguc-Kunt and Klapper, (2012) and IMF Financial Access Survey (FAS). *Note*: 2009 values from FAS are used as more economies are covered. Data excludes Mauritius.

2.4.2.3 High cost

Banking is relatively dear as banks charge people for keeping their accounts. Again, people need to travel long distances to a bank and expenses involved in travelling add on to the total transaction cost (Allan *et al.,* 2013). Research globally has shown that 20% of the unbanked say that distance is a typical barrier to opening bank accounts and Allan *et al.* (2013) report that a stubborn figure of 31 % is recorded in sub-Saharan Africa. This barrier is highly related to the foregoing barrier of geographical remoteness. In addition, the interest rates charged on the loans are exorbitantly high for the low income people and the rural poor. In Sub-Saharan Africa there is an indication that fixed costs and the high costs of opening and maintaining bank accounts (Demiguc-Kunt and Klapper, 2013) is a reflection of a lack of competition coupled with underdeveloped infrastructure. Research has shown that in Uganda, to maintain a cheque account costs the same as 25% of the Gross Domestic Product (GDP) per capita which economically makes a reason for not opening an account (Klapper and Demirguc-Kunt, 2012). The minimum balance needed to open an account also limits financial inclusion. In Zimbabwe a client is required to produce US$20 together with other documents to open an account while in Cameroon over $700 is needed to open a cheque account (Beck, 2007) an amount notoriously above the GDP per capita in that country (Beck *et al.*, 2007). The research by Beck (2007) again reflects that in Brazil where no minimum deposits are required, there are 630 deposit accounts per 1000 while in Uganda there are only 47 due to minimum deposit requirements. Analysts have observed that charging customers transactional fees is counterproductive and reduces customer behavioural change.

ICT Africa (2014) commented that despite the large rural population in some emerging economies in Africa, the costs involved in establishing banking infrastructure such as ATMs and banking halls closer to the rural people, has been a disincentive to the traditional banks. Traditional banks disadvantage their customers by charging fees every month for using checking accounts and pay little to no interest for savings which is a disincentive to depositors. Minimising fees drive greater engagement from customers as this is quite critical for future opportunities or enhanced customer relationships.

2.4.2.4 Poor service

Products that are available have been designed and customised specifically for the middle-income and high income segment of the population (Aaker, 2011:5). Given this view, it can be noted that there is a gap in service delivery because the banks have concentrated more on servicing the better income groups and thus neglecting the low income rural people.

2.4.2.5 No trust

The distrust emanates from the cultural values and beliefs, possibly the social discrimination, the economic crisis of 2005-2008 in Zimbabwe and the uncertainty in the banking industry. In Central Asia, 31% of the unbanked customers cited lack of trust in banks as a reason for not having an account (Klapper and Demirguc-Kunt, 2012).

2.4.2.6 Market segmentation and targeting

The use of segmentation strategies to identify customers to serve has been blamed for financial exclusion. Segmentation is a process. Accusations being levelled against banks in this regard by researchers are that the banks are redirecting credit from socially vulnerable groups (Chant Link and Associates, 2011:48; FinScope, 2011) against affluent customers who are perceived as less risky and profitable (Kempton, 2000). It has again been noted that banks do not provide financial products that even accommodate other market segments. Whyley *et al*., (2000) argue that banks have developed strong relationships with the middle-to-upper income groups to the total ignorance of the poor customer. Therefore, there is a need to segment and serve all the market profiles if the objective of financial inclusion is to be realised. In this context, segmentation is viewed as a method that essentially evicted the unbanked people from the financial mainstream. Traditional banks are myopic in their marketing approach as they tend to concentrate on serving and attempting to retain middle to upper income groups at the total ignorance of the large untapped market of unbanked rural people (Deloitte, 2009:1). Competition for already served customers results in duplication and the misuse of company resources due to intense advertising meant to differentiate offerings in the market.

2.4.2.7 Information asymmetry

Comninos *et al*., (2008:1) advances an argument that information asymmetry is a critical barrier in that unbanked consumers are rejected from opening bank accounts because they lack financial and transactional history and the traditional banks do not know about the prospective client's credit worthiness. The absence of transactional history indicates that the unbanked consumer's ability to pay loans is unknown by these banks thus making it a great risk for banks to serve such consumers. While that is the case, customers do not also have knowledge about the events taking place in the financial markets due to inaccessible promotional information and financial knowledge.

2.5 FINANCIAL INCLUSION

According to the Global Partnership for Financial Inclusion (GPFI, 2009:8), financial inclusion refers to the situation in which all the working class, including those currently excluded by the financial system, have effective access to the following financial services provided by formal institutions: credit, savings, payments and insurance. The Reserve Bank of India (RBI) (2013) adds that financial inclusion is having access to appropriate financial products and services throughout the society at affordable cost in a fair and transparent manner by regulated mainstream financial institutions. The MasterCard foundation (2010) summarises by saying that financial inclusion requires the educated and savvy use of financial products by consumers and the youth and women need be encouraged to participate in the process. Therefore, a working definition of financial inclusion is that it is a process that ensures that all people in the country have better, affordable and transparent access to financial products and services.

2.5.1 Significance of Financial Inclusion

Financial inclusion has positive implications for a number of stakeholders. Mitton (2008) asserts that if people are included in the financial mainstream, they will be able to attain affordable loans as they are able to avoid notoriously high interest rates and risk finance. The problems of indebtedness, stress, distress and insecurity will be reduced (Pleasence, 2007). The unbanked people's vulnearability is reduced since they can insure their activities and premiums can easily be debited directly on their accounts. It is important to note that financial exclusion reinforeces social exclusion,and therefore financial inclusion can ease out the problems of under-investment of the community (Mitton, 2008).

Financial inclusion has the capability to transform, empowers the lives of the financially excluded and results in economic development, thus enhancing the government's objectives (Tobbin, 2012). Beck *et al.* (2007) argue that an inclusive financial system can help in reducing the growth of informal sources of credit (such as money lenders), which are often found to exploit the low income earners. Banks and Mobile Network Operators (MNO) are bound to benefit in that their capital base will be improved due to the deposits contributed by the once unbanked.

2.6 MOBILE COMMERCE

According to Chaffey (2009:6), mobile commerce (m-commerce) refers "to electronic transactions and communications conducted using mobile devices such as laptops, personal digital assistants (PDAs) and mobile phones, and typically with wireless connection". M-commerce is a wireless e-commerce approach in which mobile tools or devices are used to do business transactions on the

Internet, either business to business or business to consumer or consumer to business (Abdelkarim and Nasereddin, 2010:51). Therefore, m-commerce is a subset of electronic commerce. M-commerce has the capability to create effective business to customer markets by use of the ubiquitous nature of mobile devices and digital communication channels, and it includes mobile banking, stock trading and retailing. This definition of M-commerce in this study is meant to clear and clarify the confusion and misuse of m-commerce and m-banking which are often interchangeably used.

Below is a mobile commerce architecture
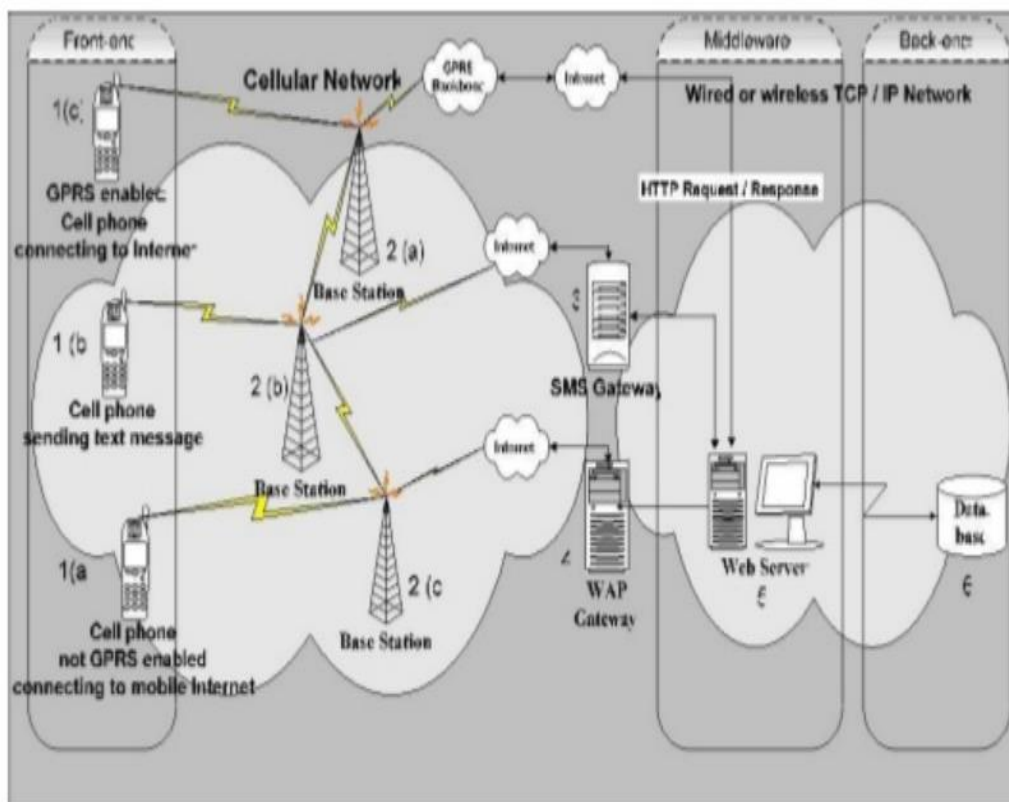
Fig 2.3 Mobile Commerce architecture. Source: Adapted from Kathirvel (2015). M-Commerce Structure

2.6.1 Mobile Banking

The Federal Reserve survey (2014:7) defines mobile banking as "using a mobile phone to access your bank or credit union account. This can be done either by accessing your bank or credit union's web page through the web browser on your mobile phone via text messaging, or by using an application downloaded to your mobile phone." Diniz *et al*. (2011) view it as a set of banking services that involves the use of portable devices connected to telecommunications networks that provides users with access to mobile payments.

Chung and Kwon (2009:539) define mobile banking as "the convergence of mobile technology and financial services, which have emerged after the advent of wireless internet and smart-chip-embedded handsets". Mobile banking may also be referred to as "a bridge that brings traditional banking services to users of handheld GSM mobile devices" (SanBoeuf, 2006, as cited in Saleem and Rashid, 2011:3539). The term m-banking is defined by Donner and Tellez (2008:2) as "a set of applications that enable people to use their mobile telephones to manipulate their bank accounts, store value in an account linked to their handsets, transfer funds, or even access credit or insurance products". This mobile banking is anywhere, everywhere, and anytime banking as it allows rural unbanked customers to conduct financial transactions on cell phones 24/7. This means that bank consumers on the move may access their bank accounts and easily transfer their financial resources anytime everywhere by visiting their cell phones without physically visiting their banks.

From the above definitions, a functional definition of mobile banking in the context of this study is that it is a form of mobile commerce that uses cell phones or wireless devices by rural individual customers to access their bank accounts to check their balances, withdrawing money, transfer money, save money, authorise direct debits or payments, and getting promotional information from their banks. Mobile banking is viewed as a branchless banking system that allows banks to effectively serve a variety of mass consumers of limited access to traditional bank branches or those with low account balances (Mroueh, 2013:1). It is interesting to note that mobile banking may be referred to as the "invisible bank" (KPMG survey, 2013:21). Therefore, mobile banking is a form of mobile marketing in which financial services are provided by obtaining financial account information and the conduct of financial transactions with their financial institutions by customers via mobile phones.

2.6.2 Mobile Money

There are variations in the definitions applied to mobile money across the financial landscape as it covers a wide spectrum of overlapping applications (Ernest and Young, 2009; Dermish *et al*., 2011; GSMA, 2013). Mobile money is seen as electronic money transactions over the mobile phone (Ernst

and Young, 2009; ACP, 2014).There are several forms of mobile money services which are "mobile banking', "mobile payment", and "mobile transfers". Several pieces of research confuse and use "mobile banking" with "mobile money" interchangeably. The distinction is well made in this study.

Mobile banking has already been clarified above. Mobile money transfer is known as person-to-person or mobile remittances which are services that allow the unbanked consumers to send money to family members or friends or even receive money from the various remote areas of the global village (ACP, 2009). Mobile payment is a service that allows the unbanked to use their wallets in their mobile phones to buy and sell goods and services either remotely or on site. Promotional information and materials are also accessible via the mobile phones. For the purposes of this study, mobile money is all forms of monetary transactions that are executed over the mobile phone.

2.6.3 Mobile Banking Services

Mobile banking services are broadly put into the categories of mobile accounting, mobile brokerage and mobile financial information services. From the accounting perspective, bank customers are able to retrieve mini-statements and review their account's history. The services are also able to access loans opportunities and statements, as well as equity statements for those who invest their money in money markets. Bank clients are able to transfer money to other accounts for payments of bills and purchases. It must be noted that information about where to invest money by clients profitably is available from the bank and mobile banking is able to provide personalised alerts and notifications on stock prices. Promotions being held by the banks may be available via this channel, as well as general information such as the weather.

Savings is another bank facility which is significant as the unbanked should have access to savings as this defends them from falling into poverty, economic decadence and over-indebtedness, as well as enabling them to cope with trying times of change (Gloukoviezoff, 2004). Another facility which could possibly be available through mobile banking is insurance. It is quite uncommon for the unbanked consumers to own insurance policies due to meagre incomes (Kempson *et al*., 2000). However, the rural unbanked should have the right to guard against fire, ill health, and unemployment to reduce their social exclusion by having an insurance policy which would be directly debited on their bank accounts (Kempson *et al*., 2000).

2.6.4 Origin of Mobile Banking

The innovation of mobile payment originated in Finland (Ogawara *et al*., 2002) and was established in 1999 by Sonera, a telecommunication company in Finland whose mobile payment system was known

as Sonera Mobile Pay (SMP) (LIRNEasia and UP-NCPAG, 2010). Prior to the above establishment, Paybox, heavily supported by Deutsche Bank in Germany, first founded mobile banking and payments and was successfully launched in countries such as Sweden, Austria and the UK. In Korea, banks adopted mobile banking from 2002, in order to reduce operational financial transaction costs and to improve convenience and coverage (Terri and Fumiko, 2007 as cited by LIRNEasia and UPNCPAG, 2010).

In Africa, M-PESA from Kenya was developed by Safaricom in 2007, as a subsidiary of Vodafone, and was the first financial product in the world that allowed the unbanked, with no banking details, no registration, no bank account, no credit card, to do banking. MEF's (2013) Global Consumer Insights Series on Mobile Money states that Kenya has reputedly the world's largest mobile banking and is a pace-setter in mobile money. Mas and Das (2010) cited in Tobbin (2012:76) asserts that since SMART money was launched in 2003 in the Philippines, over 72 mobile banking candidates in more than 42 countries have been registered.

Later, the mobile money industry became very popular in developing economies such as India, Bangladesh and Pakistan. Wizzit, MTN mobile money and FNB in South Africa, Airtel in Tanzania were among the mobile banking platforms that became popular (ACP Observatory on Migration, 2014:6) and recently Ecocash, Telecash, and Nettcash in Zimbabwe. Penicaud and Katakam (2013:8) in their study indicate that in the mobile industry at the end of 2013, there were 219 services live in 84 countries, compared to 179 services in 75 countries at the end of 2012. GSMA (2013) deployment tracker has also discovered 113 mobile money services that are in the pipe line to be launched. Regulatory reforms that are enabling mobile money services, better financial education, effective network coverage, reduced perceived risk, customised financial products and investment in information technology infrastructure are contributing significantly to the growth of the industry in terms of the number of deployments.

The following figure indicates the uptake of mobile banking around the world.
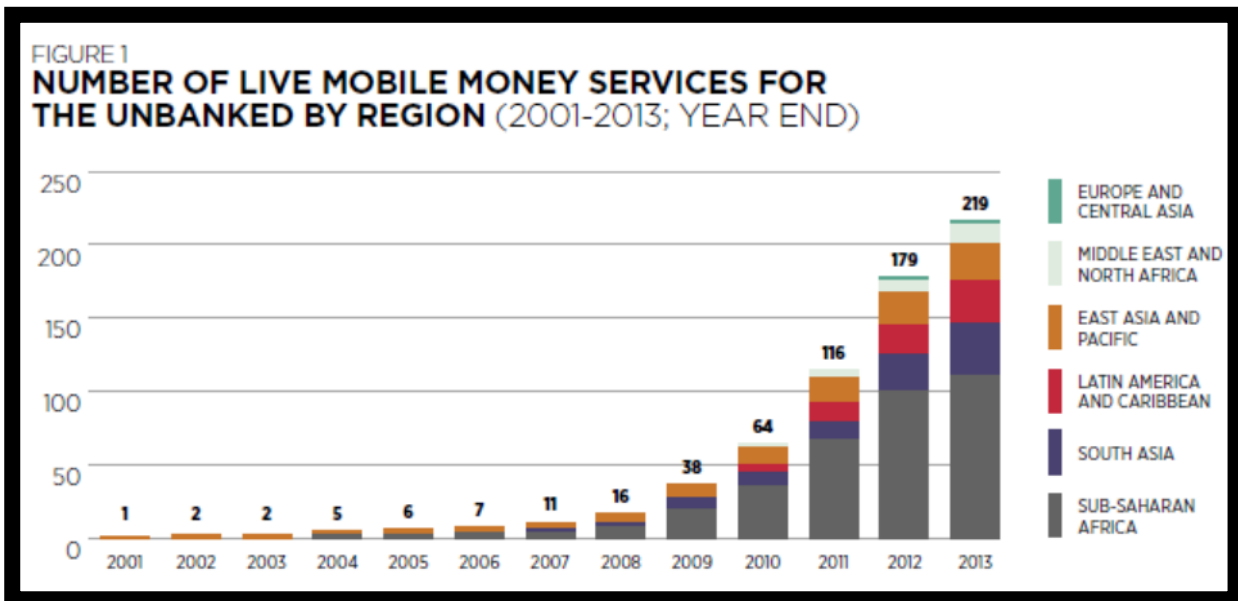
Fig. 2.4 Historical development of adoption of mobile banking in the world. Source: Adapted from Panicaud and Katakam (2013: 9): Mobile Financial Services for the Unbanked.

The latest developments from the manufacturers of mobile phones, for example Ericsson, Nokia, Motorola, Siemens and Samsung, are that the mobile handsets are tailor-made according to mobile banking requirements. This development reduces the complexities of former handsets when conducting mobile banking and reduces the complexity of use by the rural unbanked consumers.

2.6.5 The Evolution of Mobile Banking

Mobile banking has gone through an evolutionary path which has been necessitated by business and information technology that are battling to keep pace with each another (Kiran, 2009:1). Banks have constantly been going through a series of changes in order to reduce operating costs and in this quest the banking industry has gone through several technology trends being adopted and several service innovations being delivered to the unbanked (Kiran, 2009:1). The following figure shows the drivers that have made strong contribution towards mobile banking through various models of operation (Kiran, 2009:1).
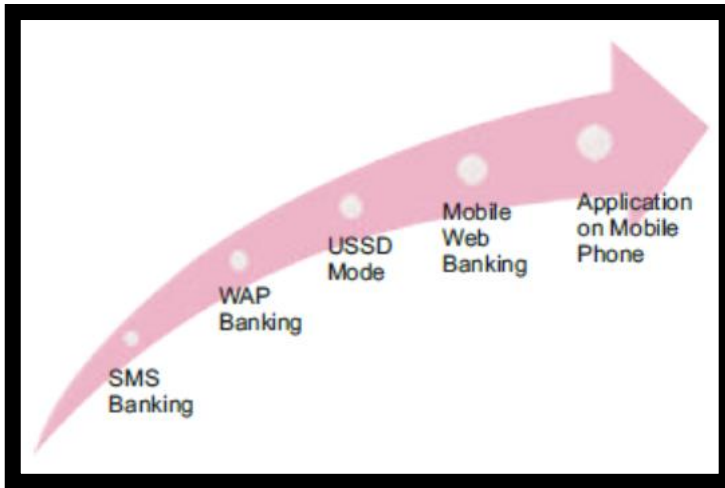
Fig. 2.5 Evolution of M-banking. Source: Adapted from Kiran (2009).

M-banking grew from a simple information delivery channel to a complex and extensive financial and banking medium. This phenomenal growth is attributed to commitment by various partners in the banking value chain.

2.6.5.1 SMS Banking

There was pressure on the ATMs as customers made a plethora of enquiries and this overburdened the ATM infrastructure.This was quite common during pay days when people made enquiries about their salaries. Banks had to solve these problems by integrating clients' accounts to their mobile phones whereby a proactive communication about account enquiries was made through a simple SMS (Kiran, 2009:3). This approach therefore reduced pressure on the ATM infrastructure, as well as serving consumers in remote areas without having to visit the physical branch. SMS is quite easy and simple to use by customers and works across all wireless operators. It does not require any software installation, so making it affordable to the rural unbanked poor consumers. However, this system was rocked by such problems as SMS not being instantaneous and the security of SMS transmission was another bugbear (Kiran, 2009:3) as data was send directly to customers in plain text form which compromised the security of banking (Bramhe, 2011:472).

2.6.5.2 Wireless Application Protocol Banking (WAP)

The International Engineering Consortium defines WAP as "an application environment and set of communication protocols for wireless devices designed to enable manufacturers-vendor and technology-independent access to the Internet and advanced telephony services". With time, mobile banking could be processed through WAP which provided real time financial and banking transactions. Customer experience was improved as information access was now real time and secure (Kiran, 2009:3). Banks benefited from WAP in that there was decreased churning, reduced operating

costs and an increased subscriber base, by adding interfaces and a wide range of value added banking services such as account and billing management (The International Engineering Consortium, no date). The users benefited from easy and secure access, and accessed unified messaging, banking and promotions on mobile phones. WAP brought sophisticated solutions to mobile banking users and averted the problems of SMS banking.

2.6.5.3 Unstructured Supplementary Service Data (USSD) Banking

FinMark Trust (2007:17) defines USSD as "a menu driven form of SMS where a customer would receive a text menu on their phone as opposed to a string of words". This was a development because WAP had a restriction to a specific set of devises, but USSD permitted real time interactive access to a bank account on basic handsets (Kiran, 2009:3). USSD made mobile banking affordable implying that the unbanked poor consumers could easily be netted into the financial mainstream.

2.6.5.4 Mobile Web Banking

Kiran (2009:3) further comments that the improvement in technology made mobile phones fully fledged web pages. Customer experiences vastly improved and interaction between the banks and their customers indeed improved as well. This improvement meant that mobile banking was becoming almost an Internet banking kind of experience on the mobile phone (Kiran, 2009:3). Many mobile phones now include web browser that connects to the Internet. The affordability and steady improvement in user experience have encouraged more bank consumers to utilise their phones for banking on a regular basis. The Mobile Marketing Association (MMA) (2009:3) submits that the mobile web is a delivery channel of web content which offers and formats content to users with awareness of the mobile content. The advantages of this banking platform are that the bank consumer experiences browsing the Internet from mobile phones and that there are guaranteed secure connections, as well as being able to access bank applications (MMA, 2009:3). However, this is limited in that it is inconsistent due to varying network speeds and limited handsets. MMA (2007:3) notes that bank customers would need to plan, which may be a barrier among price sensitive demographics.

2.6.5.5 Application on Mobile Phone Banking

The advance in mobile phones made it possible to install applications providing richer customer interface. Kiran (2009:3) observes that new generation mobile banking applications provide enhanced communication layer security through the use of encryption and algorithms; pre-stored customer relationship information to improve response times and customer experience; and richer user interface and mobile device specific user interface enhancing customer experience. Richer user experience leads to more comprehensive features being offered on mobile banking.

From this statement, it can be learnt that applications on mobile phones have taken mobile banking to greater heights although problems of network connection and bandwidth still remain leading challenges. However, the future trends of mobile banking might need to address the issues of device disparity, security, personalisation, application distribution, customisation, and market segmentation in order to effectively serve the banked, under banked, and the unbanked.

2.7 MODELS OF MOBILE BANKING

Porteous (2006:3) observed two types of mobile banking which he named additive and transformational models. An additive is a model type in which the mobile device is used as an alternative channel to an existing bank account, whereas the transformational one involves financial products being linked to the use of the mobile device targeted at the unbanked who are largely poor income, rural people (Porteous, 2007:3). Tobbin (2010:76) adds that mobile banking acts as a complementary service to the ATMs, cheque books, smart cards, point-of-sale networks and internet resources. . Touchasi (2012:72) notes that mobile banking services are being used as an addition to existing accounts. Mobile banking should not be used as a complementary channel to bank accounts: it should add bank accounts to an existing mobile phone number, laments Touchasi (2012:72). This approach has been commended to substantially bridge the financial access gap. This study is here to advance the case for the need for increasing financial access to the poor and vulnerable by making a close examination of the attitudes and behaviours of the rural unbanked people towards accepting mobile banking.

Transformational mobile banking has been seen as the vehicle to financially include the unbanked poor in the financial mainstream in the developing world (Porteous, 2006; Tobbin, 2012). The banking model brings the hope that the lives of the rural unbanked will be completely changed. The transformational approach leads to the creation of new accounts to accommodate the unbanked people. It is noted that this cannot just happen if the unbanked do not adopt and use the mobile financial services. It is, however, significant for researchers to make a close investigation of the inhibitors and motivators of mobile banking adoption by the unbanked market segment (Tobbin, 2012:76). Despite this classification, there are notably four models that researchers have found from the Philippines, Kenya, Finland and South Africa. The following subsection critically analyses these models. There are also four main players in m-banking namely the financial institutions (FIs), third party providers and various types of retail agents (USAID, 2010). The business models as indicated in the figure below generally show the degree of control of revenue from m-banking transactions. Heyer and Mas (2009:3-4) note that the four models are heavily influenced by the volume of small transactions, the speed in spawning momentum amongst users and merchants, and the coverage involving the ability to use m-money anytime and anywhere.
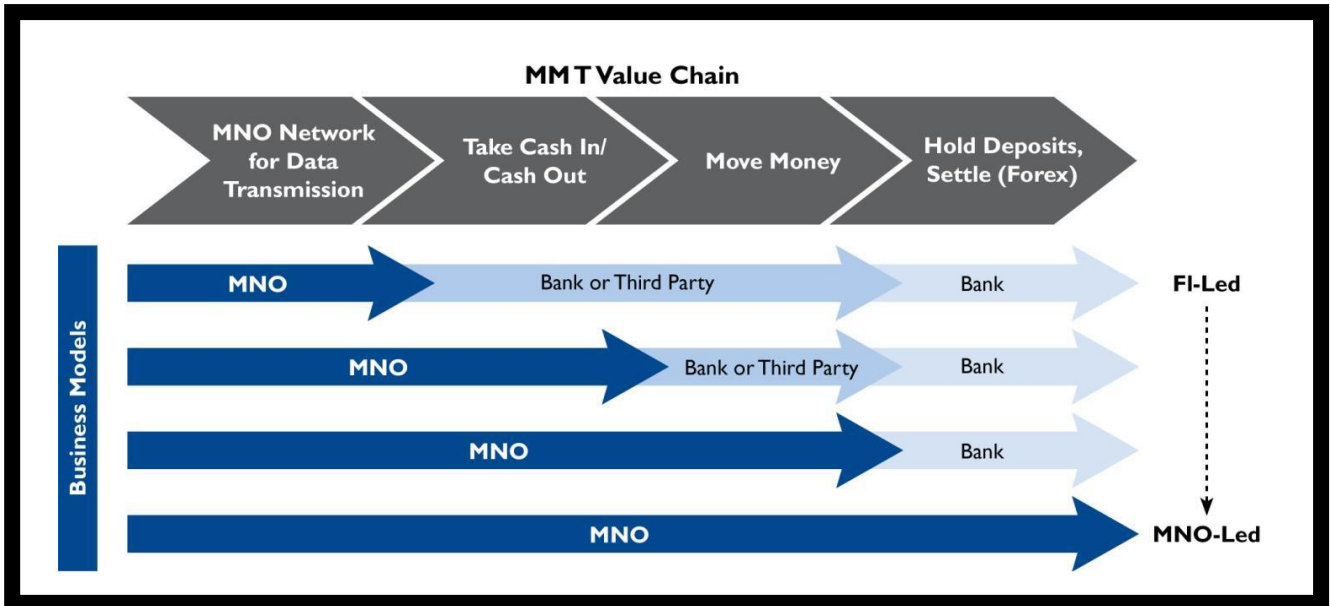
Fig. 2.6 Models of Mobile banking. Source: mPay Connect Consulting, MMT APAC presentation (2009).

The major distinguishing feature of these models is that in the bank-led model, the bank and the client create a direct contractual agreement, whereas in the non-bank based model the customer deals directly with the Telco (MNO). Porteous (2006:26) argues that these models are based on such questions as: Who is legally responsible for the deposit? Whose brand is most exposed to the public? Where can cash be accessed? Who carries the payment instruction? Below is a full discussion of the available models that were given in figure 2.6.

2.7.1 Bank-Driven Model

A bank-driven model is similar to additive mobile banking where banks make available some of their services through the use of a mobile device. Hernandez (2011:2) notes that a bank enters into an arrangement with the mobile operator to offer services either through SMS or on smart phones. Clients can easily carry out financial transactions without visiting brick and mortar. The bank holds the account and deposits and it uses its brand name dominantly. Cash is accessed through the bank but Telco handles the payment instruction. Bank-based models specifically target the already existing customers by giving them an alternative channel that is convenient and helps them to manage money without handling cash. When the regulatory framework is not restrictive in financial inclusion, banks will target the rural unbanked (Hernandez, 2011). From the Zimbabwean environment, Kingdom is a good example of a bank that is not restrictive as its Cellcard is easily accessible through mobile platforms such as Telecel. This model is advantageous in that it allows the banks to potentially use its services efficiently and effectively by using both the mobile banking system and the brick and mortar system. Agents linked to the bank are able to play the role of customer service, to keep records, and to

handle liquidity problems and person to person transfer services. However, this approach needs be treated with care as financial services have a tendency to cannibalise each other and close relationships need be developed between the network operator and the bank if it is to be successfully handled.

2.7.2 Joint Venture Model

A joint venture model is a model owned and operated by two or more companies as a separate and specific business or project for the mutual benefit of the members in the venture (Ernst and Young, 2014:3). Thus the bank, the MNO and even the government come together to totally commit their resources in unison. The purpose of this model is to share risks and rewards in the mobile banking process through serving untapped markets, combining complementary technological knowledge (Ernst and Young, 2014) and pooling resources in order to effectively serve the new market segment. The businesses may participate directly or indirectly in the overall management of the venture for transparency reasons. The involvement of the government will ensure that the laws governing banking are respected, as well as ensuring that the unbanked consumers are protected and not exploited, thus ensuring a transparent way of financial inclusion. This model seems to be better in serving the unbanked in the transformation manner as compared to other models without government involvement. Financial institutions are motivated to engage in this model because they can reach out to the large mass of mobile subscribers who are not necessarily bank clients (USAID, 2010:8). However, despite these possible benefits of the model, they may be diluted by conflict problems emanating from the overall need for power in the running of the venture. Where the government is involved, there are possibilities of the venture being run along political routes thus denying the venture its commercial competitiveness. In the venture there is the challenge of who really owns the customers.

2.7.3 Non-Bank-Led Model

Under this model the bank serves as a holder of deposits while customer relationship management services are carried out by the mobile operator (Hernandez, 2011). The customers do not get into a contractual obligation with the regulated bank but only experience the retail transactions served under the agent network. The consumer's "money" is recorded in a virtual account on the server of a non-bank entity (USAID, 2010 cited in Hernandez, 2011). Therefore, the money is handled by the banks and the agents in the network. The payment instruction may be authorised by any of the Telco entities especially where the inter-operability of the service is the norm. Good examples may include M-PESA of Kenya and WIZZIT of South Africa. This model assumes a transformational effect as it ropes in the once unbanked market segments in mainstream banking. The non-bank-led model is transformative in nature, as it targets the underserved and rural regions which are without access to

formal financial systems. The Mobile Network Operator (MNO) offering the financial services is not more subjected to the restrictive measures of the banking act, than the traditional bank because it is controlled by the post and telecommunications regulatory authority only. However, the MNO's banking operations interest may call for the government to monitor its operations if the deposits of consumers are to be protected if the system fails. This model can reach a wide area through its expansive agent network. USAID (2010) observes that MNOs stand to benefit in that there is reduced customer turnover (operator switching).They also have a better brand positioning emanating from service creation and innovation, a distribution cost reduction via the digital place and additional streams of revenues from other mobile transactions.

Despite these benefits accruing from this mobile model, Macharia and Okunoye (2013) seriously lament that companies may exploit the poor and the unbanked, since these may lack information about consumer protection, given that they are new to the environment. The agents under this model are not strictly regulated as under the bank-led model, so this exposes the whole system to a number of risks. If the MNOs do not strongly capitalise themselves there is a risk of having liquidity problems because the transactions are not backed by a bank, thus risking consumer deposit funds.

2.7.4 Non-Bank Driven Model

This is a model where deposits are either held by a bank or Telco and the brand name that may be dominant is either of the bank or the MNO. Cash can be accessed through Telco or other means and the payment instruction is specific to the MNO. Examples include Global and Celpay. This model has the advantage that the MNO has full control of the customer and possibly does not share the profits with other players. The model is especially good where an MNO does not want to share its infrastructural platforms with other operators. If the company is not well capitalised there is the likelihood of the system failing and depositor's funds will not be well protected.

2.8 DRIVERS OF MOBILE BANKING ADOPTION

The emergence of mobile banking has been received by many with mixed possibilities, yet many people have remained sceptical of the benefits of mobile financial services (Federal Board of Governors Report, 2012:3). The promises made by this banking approach are the ones that are driving the quick adoption of the system in some countries despite others reporting low uptakes (Raleting and Nel, 2011, Tobbin, 2012, Dineshwar and Stevens, 2013). As the benefits of mobile banking appear relatively conventional to the international community, the implementation of the system differs by country due to its complexities and diversities inherent in the system but there are colossal opportunities that are also inherent in this system.

2.8.1 Financial inclusion

Malek Mroueh (8 April, 2013) senior director, Regional Business Development for the Middle East, Africa and Pakistan regions, TSYS International, said.

"Branchless banking uniquely and powerfully extends financial services to a wide spectrum of the financially excluded, yet also enables a new level of convenience for the banked. The potential for the branchless banking model, if properly executed, can be a key enabler for increasing financial inclusion and improving economic mobility across all market segments,"

In support of the above statement, mobile banking has been noted as the cheapest vehicle to ensure the measurable global commitment of the Maya Declaration on financial inclusion spearheaded by developing and emerging economies policy makers in order to unlock the economic and social potential of the poorest (Alliance for Financial Inclusion, 2012:8). The rural unbanked people would have access to formal finance through mobile banking as it does not involve the need for initial deposits and identification particulars which have often been demanded by the traditional banks.

Since this is a cheap mode of delivering financial services to the poor, most governments have taken it as an opportunity to reach the unbanked and have therefore set initiatives that promote its use. With 40% of Zimbabwe's bankable population being financially excluded from formal and informal financial services (FinScope, 2011:5), mobile phone banking with its lower operational costs makes it possible for the unbanked to access affordable, flexible, and agile services. Part of this has been attributed to the high costs of traditional banks and long physical distances. In support of this, Comminos *et al.* (2008) agree that mobile phones have presented a great opportunity for the provision of financial services to the unbanked. Mobile banking provides simple and an alternative banking system that provides access to formal financial services to the unbanked.

The inclusive financial power of mobile banking in reaching the unbanked may be positively commented such that the next generation mobile phone users might need becoming bank customers. Mobile banking has a financial deepening impact as it provides a wider choice of financial services earmarked for all people in the society (Edwards, 1973). He adds that it critically reduces risk and vulnerability of marginalised groups such as unbanked people and increases their ability to access basic services such as health and education, thus contributing positively towards economic growth.

2.8.2 Green and sustainable marketing

Green marketing has been defined by several researchers such as Stanton and Futrell (1987), Polonsky (1994), Kotler and Armstrong (2004), Kotler and Keller (2012). The societal marketing definition of green marketing is the development and marketing of products and services that are designed to minimise detrimental effects on the environment and to improve its quality. Economies these days

favour products, production processes and delivery channels that do not pollute the environment. Given this, the digitalised financial products and their distribution channels are paper use free and therefore provide the required answers to reducing pollution as compared to the traditional banking where paperwork is common. Mobile banking platforms have positively influenced banking operations globally by transforming banking operations from paper-based operations to computer and internet oriented operations (Al-Jabri and Sahail, 2012) cited in Dzabenuku (2013:2). Green marketing from the banking perspective may be termed green banking. Green banking initially appeared in the western economies and has spread to the rest of the world. It is the ethically responsible way of banking that tries to keep the world liveable without any significant damage to the environment. This banking approach promotes environmentally friendly practices and reduces carbon footprint from the bank's activities (Islam and Das, 2013:40).

Islam and Das (2013:40) group green banking coverage as including "Sustainable banking, Ethical banking, Green mortgages, Green loans, Green credit cards, Green savings accounts, Green checking accounts, Green money market accounts, Mobile banking, Online banking, Remote deposit, Waste Management, Roof Gardening, and Green Financing". From this list, it can be observed that mobile banking also appears.

2.8.3 Information Technology developments

Steadman (2011) cited in Dineshwar and Stevens (2013:3) argue that the developments in information technology act as an enabling factor that allows further adoption of mobile banking. PwC (2011:6) noted that banks have embraced mobile technology and social media platforms in their marketing strategies in order to remain competitive. Investment in technology that is cheaper has allowed bank customers to complete transactions, manage their accounts, and perform banking research through their cell phones. (PwC, 2011:6). The cheaper handsets that are being produced in China have provided cheap and affordable technology to the rural poor. MNOs and banks have taken advantage of the fact that in the developing world, even the poor can afford a cell phone which was purchased primarily for making calls and sending message. The fact that the cell phones have the USSD integrated in them has made it easier to market financial products to the unbanked. PwC (2011:8) further reports that the MNOs have developed considerable mobile payment technologies that are meant to service their customers, although no standard infrastructure has yet emerged. Financial institutions have started implementing customer-centric technology and operational platforms to support a coordinated channel strategy.

The fusion between telecommunications and the banking industry has enabled integration of financial markets between countries, shortening the distances between points of transactions (Bara, 2013) as well as bringing efficiency in processing transactions.

2.8.4 Competition

Mobile network operators (MNOs) are the firms that build and maintain the telecommunications networks that deliver voice and data services to a mobile phone. Colossal opportunities accruing to other MNOs supported by donors to enter the marketplace and create a conducive operating environment as compared to traditional banking and near perfect competition, means that market penetration of mobile banking will be enhanced (USAID, 2010:21). MTN in 2009 announced that it was venturing into establishing more MTN mobile products in 21 countries in Sub-Saharan Africa in a bid to increase the level of competition in order to make mobile banking more affordable. The mobile banking industry has proven to be a lucrative business as return on investments (ROI) are reportedly high largely due to cosmic customer adoption in countries such as the Philippines, Kenya and South Africa. Mammoth profitability is attracting more players into the industry.

ICT Africa (2014) notes that enabling policies have tremendously motivated competition among banking industry players and created economies of scale resulting in mobile commerce providing the necessary keys to unlock the economic potential in Africa. Deloitte (2009:1) observed that there was a large untapped market in the rural areas. It further noted that most emerging economies are competing against each other by attempting to retain the same middle to upper income retail customers, yet there is a very large market segment that most banks are ignoring and the non-bank competitors have started servicing and cultivating this market effectively. The increased number of subscribers and fierce competition amongst MNOs has caused continuous improvement in service quality and reduced prices (Al-Jabri and Sohail, 2012:380) and this has motivated banks and MNOs to engage in mobile banking.

2.8.5 Reduced Fraud

The traditional banks have been rocked by a number of fraudulent activities and many customers have lost their financial assets. Fraud is an age old hassle which is on the increase and getting more sophisticated. However, mobile banking reduces financial fraud through information alerts that let customers know exactly what is happening with their accounts instantaneously. Financial service providers should provide customer-friendly technology that provides protection for the online portals at login. Chakraborty (2011) argues that online alerts for card-based transactions should be mandated irrespective of the distribution channel, particularly for the mobile wallets when there is movement in their accounts (Agwu and Carter, 2014:50).

2.8.6 Sophisticated demands by customers

The customer is getting more power as new distribution channels such as mobile phones are driving prices down and making the accessibility to financial products and information which is needed to

compare alternatives (Vrechopoulos *et al*., 2002). Customers are demanding personalised services irrespective of which channel they use. Therefore, banks are moving towards mobile banking in order to have an enhanced mix of high-tech and high-touch interactions if customer's demands are to be better satisfied (GENPACT, 2014). Banks have experienced a sweeping change of consumer attitude, preferences and behaviour with the young and innovative customers making a shift towards mobile banking. In a bid to cope with the ever-changing customer needs and wants, banks have sought and embraced more flexible and cost effective models to serve their customers. There is a huge gap between what customers currently demand and what banks are able to provide to meet the ever changing needs. It is unfortunate as banks are operating on legacy systems, an unfriendly legal environment and a paucity of resources despite this growing demand.

2.8.7 Ubiquity and Convenience

Tiwari *et al*., (2006:4) and Buse (2002) view ubiquity (the anywhere feature) as referring to the availability of financial services and carrying out mobile banking transactions largely independent of one's current geographical location. Convenience is a measure of accessibility and the quality of service from the bank's delivery channels (KPMG survey, 2013). The ubiquitous nature of cell phones and the marketer's ability to personalise messages based on demographics, makes mobile marketing more appealing as a communication tool (Kolter and Keller, 2012; Agwu and Carter, 2014). Mobile banking offers highly accessible services to all segments of the society because it is faster, more convenient and cheaper than both formal and informal services (ACP Observatory on Migration, 2014:8). It further reports that mobile banking has the ability to reach remote areas where the brick and mortar banks have been physically invisible. Mobile banking is branchless banking which can be contacted anywhere and anytime (Mattila, 2003; Souranta, 2003; Tobbin, 2012; Dineshwar and Steven, 2013; ACP Observatory on Migration, 2014). Mobile banking removes the need to visit the physical branches for withdrawing and depositing money for this can be done in the comfort of one's home 24/7. It has been noted that senders of money do not waste time filling in forms and waiting in long queues to get their transactions completed. The ACP Observatory on Migration (2014) notes that the entire process of depositing and withdrawing money is avoided by using a code sent and received via SMS. In terms of convenience, Omandi (2013) noted that mobile banking allowed Kenyans to move large sums of money over long distances safely, efficiently and at lower costs. Antenna CEO Jim Hemmer (2011: online) says, "Mobile banking has now taken hold. The public clearly want to fit their banking chores around their lives and not their lives around their banking chores, and using their mobiles, they can."

2.8.8 Reduction in Costs

Mobile banking is associated with low costs of operating (Porteous, 2006; USAID, 2010; Ernst and Young, 2012; Dineshwar and Steven, 2013) by increasing the amount of data processing and improving operational efficiency (Aboelmaged and Gebba, 2013:35) as compared to traditional banking. The banks and MNOs save in the form of low overhead costs that are necessitated by skipping payment of teller salaries and having no physical location rentals that the traditional banks have to meet. Comminos *et al.,* (2008) agree that mobile transactions data can be used for market segmentation by separating lower- and higher-risk segments and thus reducing the costs associated with carrying marketing research to identify these. The following figure shows that mobile banking is the cheapest distribution channel for financial products.
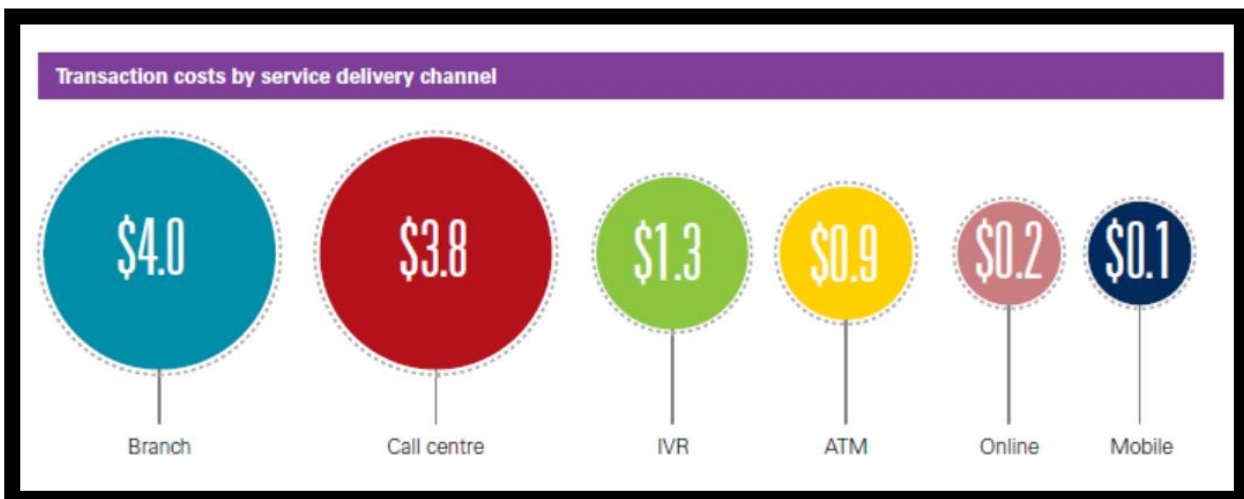
Fig. 2.7 Transaction costs. Source: Adapted from Tower Group Fiserve/M-Com Data (2009).

2.9 CHALLENGES IN MOBILE BANKING ADOPTION

More research in mobile banking has strongly focused on the diffusion and motivating factors of adoption, with little research and neglect of the inhibitors of diffusion of innovation (Elbadrawy and Aziz, 2011:9-17) especially in developing countries like Zimbabwe**.** Mobile phones have become serious marketing channels in the banking industry as the penetration is very high but have seen a number of challenges to realise the full potential use of information technology.

2.9.1 Customer behaviour

Belch and Belch (2013:115) define consumer behaviour as activities that consumers engage in when searching for, selecting, using, evaluating, and disposing of products and services such that consumer's needs and wants are satisfied. Marketers' success in influencing purchase behaviour

depends on how well they understand consumer behaviour. Consumers have a tendency to resist adoption of new products and services. Bargozzi and Lee (1999:218-225) argue that resistance by consumers to innovation is a special case of general resistance to change and may be due to anger, fear of the unknown as they interact with innovation, sadness due to poor product performance, and disgust.

2.9.2 Competition and distribution challenges

Some regulators feel that agent networks should be shared in order to efficiently reach the potential scale quickly but MNOs arguably insist that some exclusivity is quite significant to effectively spawn a better return from their initial investments in setting up and training their network of agents (Alliance for Financial Inclusion, 2012:1). The RBZ barred mobile money to enter into exclusive agreements with individual mobile cash payment system operators. So this refusal to share agents makes it a challenge for new players who need to identify and train their new agents which may be costly to them unlike if they go through already existing agent networks. Currently, Econet is heavily locked in a dispute with players in the banking industry who want to access the company's millions of subscribers to offer their own financial services. The friction is that Econet as a leading mobile operator in Zimbabwe does not want to share its network platform with other players and the banking players are being integrated to the Ecocash system as agents which they feel is bad and annoying if the competition landscape is to be smooth. Agribank, CBZ limited and Stanbic are being treated as agents by Ecocash. Guvamatanga, the Bankers Association of Zimbabwe president on March 24 2014, commented that banks being treated as agents feel bad as they want to have equal opportunity for cost-effective and tamper-free access to Econet's network for delivery of their own mobile services. However, the MNOs feel that if the banks are given the chance to bulldoze their channels then industry attractiveness will be reduced as profits will be shared. Their continuous lock on the network makes competition difficult for the delivery of digital products.

There are frictions amongst banks, MNOs, credit card companies and retail agents as these possess different competencies (Kim *et al*, 2009:284). Banks have the motive to supplement their traditional banking services with additional channels such as mobile banking but they do not possess their own infrastructure (Negash *et al.,* 2011:4). However, the MNOs do possess the desired infrastructure that possesses the new opportunities, but they do not have the financial literacy and education (Negash *et al.,* 2011:4). Given these contexts, the players in the banking value chain need to come together to form a value network. However, the challenge lies in the fact that each of the partners might have selfish motives that impede the potential implementation of m-banking services (Mallat *et al*., 2004:42-46).

2.9.3 Impact of Government

The government becomes a barrier to mobile banking adoption due to charging of high taxes, which in some countries such as Tanzania and Uganda can be as high as 30% of overall charges (Nwosu, 2011). This normally happens when a government is in financial crisis. For example, the Zimbabwean government is suffering from liquidity problems and has recently increased taxes on airtime tariffs and imposed an import levy on handsets in a bid to raise money to fund its projects and other revenue expenditures in his midyear financial statement (Chinamasa, 2014).

2.9.4 Complicated Technology

Mobile phone compatibility has been seen as a problem since each day new and complicated devices are released into the market (DevBatch, 2014: online) and each of them having a diversified operating system which is often difficult to integrate into the service providers' systems. The challenge is consumers are continuously changing their handsets which complicates the whole system because the new handset might not be compatible with the currently available service provider's systems. PwC (2011) noted that banks have legacy banking systems which should be overhauled if the adoption of mobile banking by these banks is to be made easy. It has been noted that legacy banking systems have become a liability as they need highly costly maintenance and repairs, but customers are demanding instantaneous access to their transactions and information. These legacy systems are difficult to be integrated into the newly developed and appearing systems. This problem is worsened by the fact that more and more vendors of diverse mobile devices are entering the market and as a result hardware and software costs are going down (Nicol, 2013:37). The existence of diversified mobile devices will force banks and MNOs to develop multiple platforms to suit the different devices and this is costly for these organisations. New thinking need be pursued to ensure that mobile banking applications work across most devices which again is complicated.

2.9.5 Security challenges

Mobile banking needs to be secure to ensure that customers trust it and transact with confidence. Nicol (2013:43) notes that as mobile phones have become popular so have the security threats to the system increased. There is the possibility that as customers go mobile they access unsecured Wi-Fi networks or they can easily lose the handsets as compared to having a personal computer (Nicol, 2013:43). As mobile phones contain corporate and personal data on financial products and services, hackers have seen them as a fertile ground for attack. These hackers may get access to private and confidential information. Consumers do not want to be associated with business transactions that have a great perceived security risk. People often lose a lot of money as they transfer their monies for payment and other reasons. It is possible to transfer money from one's account into a wrong account

and if the consumers do not have enough financial education, they may lose the money and may develop a negative attitude towards the system.

2.9.6 Interoperability

This concept is little known, widely misunderstood and often considered in a narrow sense (Gillis and Pillay, 2012:144). Gillis and Pillay (2012) assert that this is a concept which defines the ability of diverse systems and organisations to work together. However, a considerable number of mobile phones are exposed in a closed-loop system whereby consumers cannot easily send a payment to another consumer within the same country or geographical area (SWIFT, 2012:5). The reality is that globally most mobile systems are not connected. Systems of organisations should be integrated so that they recognise each other for the easy transfer of money from one mobile operator to the other. In Zimbabwe, there are conflicts between the brick and mortar banks and mobile network operators (MNOs) over the issue of trying to use each other's platforms in order to connect to the unbanked. To ease this challenge, there is a need for bi-lateral agreements amongst the players in the digital value chain such as the link between M-Pesa and Western Union in Kenya. Shared infrastructure and payment capabilities that are first class and proven efficient and reliable in delivery may help improve this challenge (Gillis and Pillay, 2012:147). A number of acrobatic factors need be considered ranging from securing real-time connectivity between service providers, meeting diversified customer needs, having competition for the profit cake among service providers, entering into legal and contractual agreements which may be time consuming, having related liquidity and risk management. However, it is significant that sharing and opening an organisation's system to foreign systems is very likely to be resisted given the oligopolistic tendencies in the banking industry in Zimbabwe.

2.9.7 The Regulatory and Legal Framework (when technology outstrips regulation)

The current regulations and policies in various developing economies seem not to drive mobile banking towards effective implementation (Bara, 2013). One challenge quite prevalent in emerging economies is that technology is advancing faster than the law making process, making current laws irrelevant in some cybercrimes. Hernandez *et al.*(2011:11) argue that m-banking is associated with a great deal of regulatory challenge in the models discussed in this chapter, as telecommunications, financial and competition regulators have overlapping issues to cater for. Financial service providers need to comply with regulations and laws enforced by National Payment Systems, POTRAZ, and RBZ. However, it is not an easy job to be supervised by more than one supervisor, as reconciling compliance is difficult. The telecommunication regulators will need to oversee or facilitate the emerging mobile banking facility. Financial regulators are mandated to specify the scope of banking services and to issue licences (Hernandez *et al.*, 2011).

The challenge is whether to classify m-banking and m-payments under one licence or to treat them separately. While m-banking has the capacity to reach the unbanked, this facility has raised the eyebrows of the regulators because it has been seen as a novel avenue for criminals or terrorists conduit to transfer money, so there is the need to be regulated. Failure to regulate mobile banking activities will lead to slow adoption of the system thus delaying financial inclusion initiatives as discussed under the Maya Declaration. Bara (2013) notes that RBZ uses internally generated guidelines which can be changed anytime and thus risk being abused. In Zimbabwe, there is no electronic money act in place and this creates a big challenge for the central bank to regulate e-money effectively. Due to the fight about who owns the customers in mobile banking models, there is a need to protect the customers, especially when there is an error related to a transaction and whom they should see to have their problems addressed. If they perceive that the environment is not secure, they are likely not to adopt a system that will not solve their financial exclusion problems.

2.9.8 High rate of business failure

Researchers acknowledge the success of M-Pesa in Kenya, WIZZIT in South Africa and in the Philippines (Tobbin, 2012:76). At its introduction, mobile banking in Nigeria faced a dismal failure as in three years only 2.2% of adults had subscribed to the system while the unbanked had still to be reached (Nwokoro, 2013). The challenge that the country went through was that the central bank needed the mobile banking concept to be solely bank-led, based on the sensitive nature of cash control. However, mobile banking can be better driven by those providing the infrastructure not by the central bank's policy. The complex nature of the service requires it to be implemented with the aid of experts who are often expensive.

2.10 CONSUMER ATTITUDE AND BEHAVIOURAL INTENTION

Attitudes are expressions of an individual consumer's feelings towards a person and/or an object and they reflect as favourable or adverse or otherwise disposed towards that consumer or object (Fill and Hughes, 2005). Rokeach (1968) describes attitudes as a learned disposition toward an object or a situation which provides a tendency to respond favourably or adversely to an object or condition. It is identified that the learning may not be based on the consumer's experience but may be obtained through observation, learning and identification. Parumasur and Roberts-Lombard (2013:135) define an attitude as "a person's relatively consistent evaluations, feelings and tendencies towards and object or idea". Fishbein (1966: 394) views attitude as "a function of the strength of each of a number of beliefs the person holds about various aspects of the object and evaluation he gives to each belief as it relates to the object". Marketers see this as an appealing definition as it reveals that consumers have perceptions about a product (object as having several attributes and consumers form beliefs about

these attributes (Loudon, and Bitta, 1993). Therefore attitudes are overall evaluations by a consumer as he/she responds in a favourable or adverse manner with regard to an object.

It is important to note that attitudes assist marketers to understand and accurately predict behaviour such as behavioural intentions and possible persuasion. Attitudes may be strongly or weakly held (Schiffman and Kanuk, 2004; Solomon, 2014). They are learned from information, conditioning, socio-psychology and modelling.They are subject to change as they depend on the current situation. Some attitudes are more important than others and more resistant to change. Fill and Hughes (2005) note that when consumers buy something, they initially learn something, they feel something about a product or service and then do something by rejecting it, buying it or asking for more information. Kotler and Keller (2012:251) state that consumers form such attitudes as enthusiastic, positive, indifferent, negative and hostile. Marketers should thank enthusiastic customers, remind them to use the company's service offerings, reinforce those who are positively disposed, try to win the indifferent consumers, and ignore attempting to change negative and hostile attitudes (Kotler and Keller, 2012:251). A working definition of attitude in the context of this study refers to a person's total affective response towards accepting and using a mobile banking system by rural unbanked customers.

2.10.1 Characteristics of attitudes

Attitudes by Sumarwan (2004) cited in Ramdhani *et al*. (2012: 35) have several characteristics:

1. Attitude has object: In the context of marketing of financial services, financial consumer's attitude must be connected to the object, which may be connected to a variety of consumer and marketing concepts such as products, brands, advertising, pricing, packaging, and media. If researchers want to know the consumer attitudes toward mobile banking, then they must clearly define the attitude consumers have towards the financial product and services.

2. Attitudes are learned: As attitudes are learned, Schiffman and Kanuk (2008) claim that they reflect relevance to specific purchase behaviour either as favourable or unfavourable toward an object (mobile banking in the case of this study). It must be noted that attitudes may repel the consumer away from a particular behaviour.

3. Attitude Consistency: Attitude is a picture of a consumer's feelings, and it will be reflected by his behaviour. Because of that, attitudes are consistent with behaviour, they are not necessarily permanent, and perhaps situations influence attitudes and behaviour (Schiffman and Kanuk, 2004:253). Schiffman and Kanuk (2004:255) claim that marketers need to understand the situation in which the attitudinal and behavioural conditions of consumers are taking place in order not to misrepresent the relationship between attitude and behaviour when predicting mobile banking adoption.

4. Positive, negative, and neutral attitudes: Someone may like something (positive) or do not like something (negative) or do not even have an attitude (neutral).

5. Attitude Intensity: Consumer attitudes toward a brand of products will vary in level. When a customer states the degree of liking for the product, then he/she reveals his/her intensity. The intensity is called the characteristic attitude of the attitude extremity.

6. Resistance Attitude: Resistance is how much consumer attitudes can change. It is important for marketers to understand how high the resistance of consumers is, in order to establish appropriate marketing strategies. Offensive marketing can be applied to change the high resistance attitudes.

7. Persistence of attitude: Persistence is a characteristic of attitude that illustrates that attitudes will or will not change as time passes.

8. Beliefs attitude: Consumer confidence is the belief of the truth of the attitude he/she has.

9. Attitude and situation: Attitude toward an object often appears in the context of the situation. This means that the situation will affect consumer attitudes toward an object (Schiffman and Kanuk, 2004:253).

2.10.2 The Functions of Attitude

Attitudes according to Schiffman and Kanuk (2008) have four functions:

1. Benefits Function: This function indicates that the individual attempts to avoid the things that are not desirable. Thus the individual will form a positive attitude toward things that bring in profits and a predicted negative shapes attitudes toward the things that harm.

2. Ego Defence Function: When individuals experience things that are not desirable and are considered to threaten the ego, or if to know the facts and truth are not as expected, then attitude can serve as an ego defence mechanism that will protect him/her from the bitterness of that reality.

3. Value Statement Function: Attitude is a statement of values or a reflection of the values, lifestyles, and the general view of people. This function states that a person often has a certain attitude to obtain satisfaction in stating the value that was followed in accordance with the personal and the concept itself.

4. Knowledge Function: The individual usually has a strong need to know and understand people or things associated with them.

Having confirmed that attitude influences behaviour, behaviour has received various definitions but converge at the same meaning. Ajzen and Fishbein (1977:889) as cited in Lockton (2012:2) describe attitudes as consisting of four elements namely: "the action, the target at which the action is directed, the context in which action is performed, and the time it is performed". There is literary evidence on behaviour that attitudes are the main determinant of behaviour (Lochton, 2012:1). Studies have shown that attitude directly and significantly influences behavioural intention to use a particular technology

(Davis, 1989; Gribbins *et al*., 2003; Venkatesh *et al.,* 2003).When a researcher needs to understand consumer behaviour well, he/she must study consumer attitude (Schiffman and Kanuk, 2004:253). Despite the relationships that exist between attitude and behaviour, this antecedent has not been consistently measured in mobile banking adoption literature. The inconsistency in the results found makes the comparison of results from various emerging economies difficult and causes researchers to question the generalisability of the results. Palani and Sohrabi (2013:27) argue that attitudes are a combination of feelings, beliefs and opinions of approval or disapproval of something, whereas behaviour is the action or response to that feeling. In this regard, attitudes have been commended for explaining and predicting consumer behaviour.This research has been motivated by the need to verify this relationship in the context of mobile banking adoption by the rural unbanked consumers in Zimbabwe. However, some studies by Thompson *et al*. (1991) and Jackson *et al.* (1997) show no empirical evidence for the relationship between attitude and behavioural intention. Therefore the relationship may be supported or not supported depending on the intervening factors.

2.10.3 The ABC Model of Attitude

Attitude comprises three components namely: Affect (feelings), Behaviour (Actions), and Cognition (Beliefs). The following table summarises these three components.

2.10.3.1 The Affective component

This regards the feelings of consumers or their emotions (Schiffman and Kanuk, 2007:242; Parumasur and Roberts-Lombard, 2013:188). Researchers treat these two as evaluative in nature as they capture the individual consumer's overall assessment of the attitude object. Emotionally charged states of the mind may amplify positive or negative experiences and these may impact what comes later in terms of actions (du Plessis and Rousseau, 1999:220; Schiffman and Kanuk, 2007:243; Parumasur and Roberts-Lombard, 2013:188).

2.10.3.2 Behavioural component

Behaviour is the way in which individuals act with regards to a phenomenon, an object or a stimulus. Kumar (2010:218) defines consumer behaviour as "the buying behaviour of final consumers, both individuals and households, who buy goods and services for personal consumption." Schiffman *et al*. (2007) alternatively define it as the acts that buyers display when searching for, buying, using, evaluating, and disposing of products and services that they expect will definitely satisfy their needs and wants. Stallworth (2008:9) defines consumer buyer behaviour as a set of activities that entails the search for, the purchase and use of goods and services as a result of the emotional and mental needs of the customer, and behavioural responses. Although attitude was empirically supported that it directly

influences behaviour, some studies have indicated that there are intervening factors that moderate this influence, such as external factors or environmental factors. In the context of this study, a functional definition of consumer behaviour is the way in which the unbanked consumers act as they search for, purchase, use, evaluate, and dispose of financial products and services that satisfy their preferences and needs.

2.10.3.3 Cognitive component

This component consists of consumers' beliefs about an object, i.e. their knowledge about it (Schiffman and Kanuk, 2007:242; Parumasur and Roberts-Lombard, 2013:187). The knowledge and resulting perceptions formulate the beliefs. The cognitive component is quite critical for complicated products such as mobile phones and computers which require objective and technical information. Information beliefs are associated with the product's attributes and evaluative beliefs concern the product's benefits (Schiffman and Kanuk, 2007:242; Parumasur and Roberts-Lombard, 2013:187).

2.11 CONSUMER DECISION MAKING PROCESS

The following is a figure that depicts the stages involved in consumer decision making.
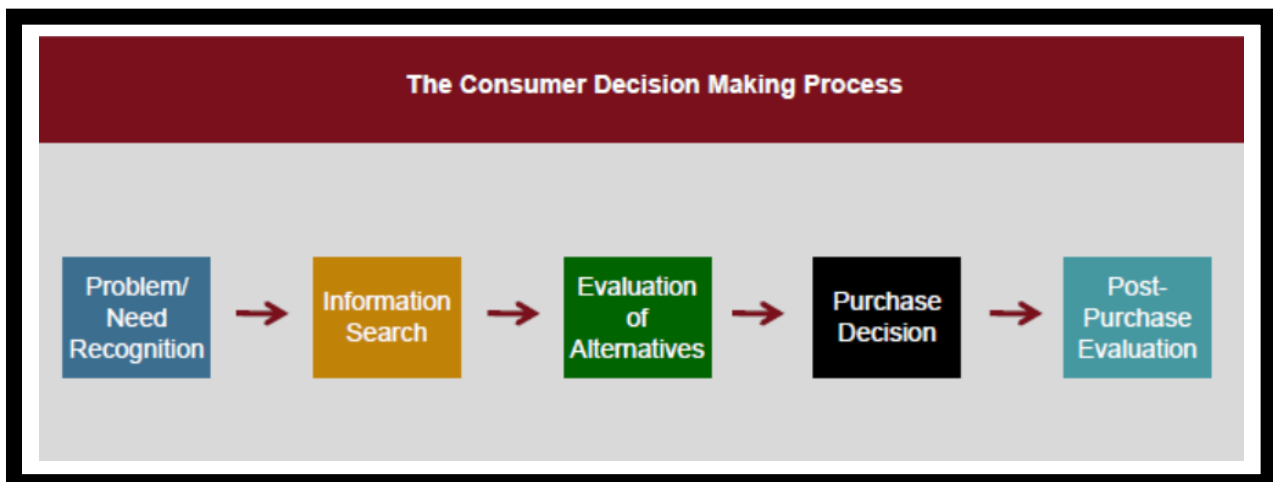
Fig. 2.8 Consumer Decision Making Process. Source: Schiffman and Kanuk (2007)

2.11.1 Problem Recognition

This stage occurs when a consumer faces a felt problem (Schiffman and Kanuk, 2004:556). Financial consumers may realise that they have a problem when the products fails to perform as per their expectation. They feel deprived of something so the feeling for the needy situation. Lovelock and Wirtz (2011:59) posit that problem recognition pertains to the awareness of the need for information

search (need arousal) which is characterised by clarifying the needs, exploring solutions and identifying alternative service products and suppliers.

2.11.2 Information Search

When a consumer perceives a need or want that needs to be satisfied he/she will have to search for information leading to solve the problem. Schiffman and Kanuk (2004:556) note that the storage of the collection of past experiences provides the correct information about where to get the solution for the problem. In the case of lacking information, the financial consumer is forced to look for the information. The consumer will have to first of all datamine from the psychological field by considering his/her past experiences and by thinking of the external environment (Schiffman and Kanuk, 2004:556). However, external stimuli such as marketing activities are used as external sources of information in order to induce the attitude toward purchasing or trying a service. Research has indicated that the prices of services and products may be used to determine the extent of an information search process if the consumers such as laggards have time and effort and need to save money. To solve this problem in the banking industry, web sites can bring a lot of information about mobile banking services to the unbanked via their mobile phones. However, the unbanked are likely to possess phones with limited capacity to accommodate such information because digital phones with such applications are expensive. Consumers normally search for more complex and extensive information about new products in order to reduce perceived risks (Schiffman and Kanuk, 2004:557; Lovelock and Wirtz, 2011:63). In the quest for information, Abel (2014) notes that financial education has the ability to reduce the perceived risk of highly complicated financial distribution channels.

2.11.3 Evaluation of Alternatives

Having gathered several sources of important information, the financial consumer will need to separate wanted information from useless information. This stage is known as the evaluation of alternatives (Schiffman and Kanuk, 2004:558; Lovelock and Wirtz, 2011:61). Consumers make a list of brands they plan to make their selection from (the evoked set) and the methods they need to assess each brand. They will exclude brands they do not wish to purchase (the inept set) and they may be indifferent as to which products to develop positive attitude about (Schiffman and Kanuk, 2004:559). In the case of this study, the unbanked will have to choose between traditional and mobile banking distribution channels. Marketers should then position their products so that they are considered in the evoked set made by the unbanked consumers. Schiffman and Kanuk (2004:560) recommend that marketers should design their promotional techniques so that they are aimed at imparting a more favourable product image to the target market. Likewise, a more appealing image needs be done through marketing strategies if the unbanked market segment is to be persuaded to use mobile banking.

2.11.4 Purchase Decision

In this stage consumers will make their choice about adopting, trying, purchasing and repeat using the new product (Schiffman and Kanuk, 2004:569).

2.11.5 Post-Purchase Evaluation

Consumers usually will have to go through a stage of evaluating the performance of a new product after having tried it against their expectations. Satisfaction is a positive attitude gained after a consumption experience (Schiffman and Kanuk, 2004:570; Lovelock and Wirtz, 2011:74). Research has indicated that there are possible outcomes in post-purchase behaviour as actual performance may match expectations resulting in a neutral feeling by the consumer, as performance exceeds expectations causing satisfaction and as performance is exceeded by expectations posing negative discomfirmation of expectations thus causing dissatisfaction (Schiffman and Kanuk, 2004:570, Hoffman and Bateson, 2007:98-99; Lovelock and Wirtz, 2011:74-75). In view of this observation, it is recommended that marketers need to reduce uncertainty that the consumer might experience by ensuring products of high quality and positioning the services well in the minds of the users. Post-purchase results in consumers developing moods, feelings, attitudes and behaviour toward the company's products. The following figure 2.11.6 summarises the above explained components

2.11.6 Simple consumer decision making process

Fig 2.8 A Simple consumer decision making process.
Source: Adapted from Schiffman and Kanuk (2004:554)
Consumer Decision Making Process
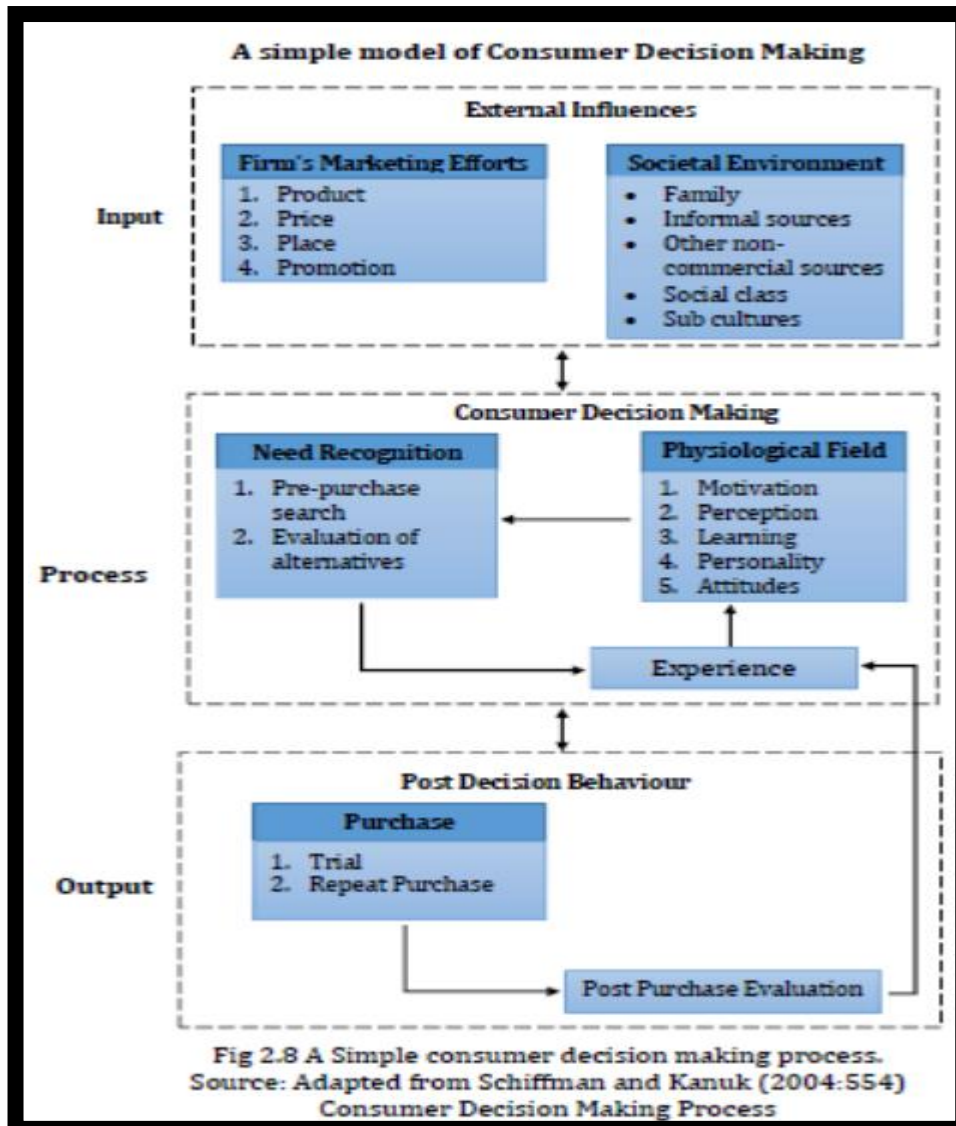
Fig 2.9 A simple consumer decision making process. Source: Schiffman and Kanuk (2004)

The decision making process involves consumer buying behaviour resulting from the consumer's engagement in a problem-solving task in which he/she moves through a series of stages (Mihart, 2012:123).

2.11.6.1 Input

Schiffman and Kanuk (2004:553) assert that inputs comprise of external influences that serve as sources of information about a particular product or service and influence a consumer's product related values, attitudes and behaviour. They also argue that the marketing mix programmes done by an organisation by communicating the benefits of their products and services to consumers and non-marketing socio-cultural influences are the major inputs in the model of consumer decision making.

As reflected in the figure 2.8, marketing inputs comprise the product or service, the price, the place, and the promotion that are directed to the financial consumer in a bid to reach, inform and persuade consumers to adopt products and services (Schiffman and Kanuk, 2004:553). However, family, informal sources, other non-commercial sources and social class and culture strongly influence the attitude to adopt financial products although these variables are beyond the scope of this study. The two headed arrow in the diagram indicates that the external variables are targeted towards the individual as well as the individual exposing him-/herself to the stimuli.

2.11.6.2 Process

The process involves the stages through which the financial consumers go through as they make decisions. This psychological field comprises motivation, perception, learning, personality, attitudes and consumer experiences. The psychological components greatly influence consumers' wants (Schiffman and Kanuk, 2004: 553), their awareness of various financial products and services, the gathering of information and the critical evaluation of the information sources.

2.11.6.3 Output

The output in the decision making process is indicated by consumers having to try the product or service, repeating purchasing and long term commitment purchases if they have developed a positive attitude towards it (Schiffman and Kanuk, 2004:569).

2.12 THE MARKETING MIX AND CONSUMER BEHAVIOUR

In a bid to determine the factors that influence the unbanked consumers to adopt mobile banking, information technology researchers have overlooked important elements of the marketing mix that strongly influence rural unbanked consumer behaviour and they have tended to use traditional methods which may not really fit the unbanked consumers' needs and preferences. This study is expecting to fill these gaps by combining the technological, traditional and marketing approaches to effectively predict rural unbanked consumers' behavioural intention to adopt mobile banking in Masvingo. The theoretical model and the findings from this research are also expected to close the gap.

Despite the improvement and development in the pace of the mobile banking phenomenon in the world, there still remains inadequate theoretical knowledge underpinning the linkage between marketing mix variables and behavioural intention to adopt mobile banking. Having reviewed the literature, this research advances consumer behaviour theory by linking the hypotheses relevant for

this study. Consumer analysis might be used as a research tool by every modern organisation that deals with commerce within strategic marketing planning (Siomkos and Vrechopoulos, 2002). Researchers in e-commerce lament that consumer behaviour in mobile commerce has not been the subject of much attention (Elliot and Fowell, 2001; Green *et al*., 2001; Barnes, 2002). Given this observation, little is known about online customer characteristics and behavioural factors that influence their purchase decisions. The following figure 2.8 by Vrechopoulos *et al.* (2002) shows the critical factors that aid in influencing the implementation of a mobile commerce undertaking.

BUSINESS FACORTS	TECHNOLOGICAL FACTORS
1. Place Strategies 2. Promotional Strategies 3. Selection Criteria 4. Pricing Strategies 5. Product Strategies	1. Good Leverage 2. Improved Mobile Device 3. Effective Application 4. Security 5. Interface Design
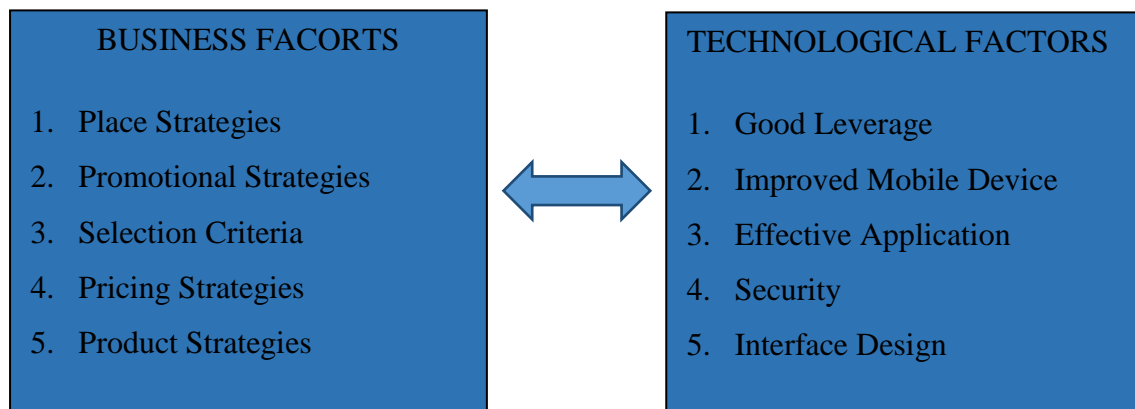
Fig. 2.10 Critical success factors for M-commerce framework. Source: Adapted from Vrechopoulos *et al*. (2005).

The above critical factors should be considered in order to discuss the influence of marketing mix variables on attitude to adopt mobile banking by the rural unbanked. This study only focused on the traditional marketing mix elements of product, price, place and promotion, and does not take account of the other three additional Ps due to the nature of the product and the digital channel through which mobile banking is offered. So the researcher supported by the literature in Chapter 3 on the theoretical foundations, felt that the processes are covered under the product, physical evidence is covered under the place and people component is covered under personal selling (promotion).

2.12.1 Characteristics of Mobile Banking Services

The KPMG survey (2013) indicated that products and services determine the measures of product range and appropriateness to customer's needs. Mobile banking is a service since much of the benefits customers get are intangible. Souranta and Mattila (2004) submit that mobile banking services are an innovation that is an intangible service and a channel of delivering services with high technology. Mattila (2002) asserts that mobile banking innovation is quite intricate due to the characteristics of the technology and services being provided in the financial industry. Al-Ashband and Burney (2001)

argue that the personal characteristics of consumer attitudes and behaviour are good predictors of adoption. However, recent research has revealed that the perceived characteristics of the product and services themselves are quite strong in predicting the behavioural intention to adopt mobile banking (Black *et al.*, 2001; Mattila, 2002) instead of relying on the socio-demographic and psychographic attributes of consumers. In view of this gap, it is important to consider the influence of the financial product and services attributes to determine the adoption of mobile banking by the rural unbanked people in Zimbabwe. According to Lovelock and Wirtz (2011:37), services are the actions, deeds, performances and efforts that financial customers go through. In a detailed definition, Lovelock and Wirtz (2011:622) view a service as:

> *"An economic activity offered by one party to another, most commonly employing time-based performances to bring about desired results in recipients or in objects or other assets for which purchasers have responsibility. In exchange for their money, time, and effort, service customers expect to obtain value from access to goods, labour, professional skills, facilities, networks, and systems; but they do not normally take ownership of any of the physical elements involved."*

Services have inherently four attributes that are not provided by physical products. These are intangibility, inseparability, perishability and variability (Clow and Kurtz, 2004; Hoffman and Bateson, 2007; Lovelock and Wirtz, 2011).

2.12.1.1 Intangibility

The lack of physical substance in which services cannot be touched, seen, smelled, heard and tasted in the same manner as physical goods, means that services are intangible (Clow and Kurtz, 2004:10). The degree of intangibility of services varies from industry to industry. Services are also mentally intangible as customers cannot visualise the experience in advance of purchase and therefore the situation make services purchases more risky (Lovelock and Wirtz, 2011:46). This mental intangibility has the ability to influence first time customer who lack prior exposure, to reject or accept mobile banking services. Services are an experience and the judgement about them by consumers is more subjective than objective (Hoffman and Bateson, 2007:28).Therefore mobile banking is a service that provides experiences to banking consumers by transferring their money, authorising payments and checking balances. However, it must be noted that for services to be carried out successfully there is need for tangible cues such as physical structures and the people ware (Clow and Kurtz, 2004; Hoffman and Bateson, 2007; Lovelock and Wirtz, 2011). For example, mobile banking services require handsets or digital gadgets, a network of agents where customers cash in and cash out their monies and other enabling physical structures. Lovelock and Wirtz (2011:46) support that intangibles such as the processes, web pages, and the expertise and attitudes of service personnel

are important in creating effective and convincing experiences by mobile banking consumers. In a bid to deal with mental intangibility, the mobile banking operators are urged to use tangible cues, use personal sources of information and create a strong organisational image (Hoffman and Bateson, 2007:31-32).

The most important dilemma with services is possibly the fact that services marketers have nothing to show to the mobile banking consumers in the digital market place. However, in digital market places, marketers are able to try and tangibalise the service by using the Web to provide the evidence of service (Hoffman and Bateson, 2007:70). The website encourages customers to visit the service bay and check (Hoffman and Bateson, 2007:70) for the mobile banking facilities available from the service providers. However, most unbanked customers possess simple handsets that do not possess Web applications as found in smart phones. Still, the challenge of intangibility will not be done away with, given this limitation, and therefore it will need more time for most of the rural unbanked to possess the expensive i-Pads and Tablets.

2.12.1.2 Inseparability

This is an attribute that services use: simultaneous production and consumption of a service. It is possible to produce goods and sell them at a later date but with services it is a different story as services may not be sold later if not consumed on the day intended (Clow and Kurtz, 2004:12). By virtue of the service that they must be produced and consumed simultaneously, means that the quality of service depends heavily on the capability of the provider and the quality of the interactive process. The interactive process means that the people element in the moment of truth is crucial. However, technology has provided a solution to this problem through automation of the processes. So the degree of inseparability is very important. Hoffman and Bateson (2007:33) argue that services are a shared experience amongst customers, and as a result, problems erupt as customers adversely influence one another's service experience. Marketers should select and train public contact personnel in order to influence their variations in their behavioural contact with customers (Lovelock and Wirtz, 2011). Mobile banking deals with the problems of inseparability in that the service provider and the banking services consumers are no longer in occupation of one physical space to enjoy the service but they are confined in the digital market space. Hoffman and Bateson (2007:70) support that customers submit their requests from geographically spaced areas from their suppliers. In addition, mobile banking services consumers initiate and consume services from the comfort of their homes and offices and the experience is no longer shared. It is important to comment that mass production is possible with mobile banking service as one SMS can be sent to the bulk of financial consumers.

2.12.1.3 Perishability

Service is unable to be inventoried or stored (Clow and Kurtz, 2004; Hoffman and Bateson, 2007; Lovelock and Wirtz, 2011). Tangible products may be produced today and stored for tomorrow's use. For instance, consumers have no choice about sports or live concert events as they have to go where the events will be performed. Once they lose the opportunity, it will be lost forever. Services that are not consumed at their appointed time will definitely stop existing (Hoffman and Bateson, 2007:72). There is need to deal with demand and supply fluctuations to ensure that the perishability of services are addressed. However, with mobile banking services, the financial services are available 24/7. Hoffman and Bateson (2007:72) support this argument by saying that information-based services are able to handle supply and demand fluctuations with greater ease than most physically based services.

2.12.1.4 Variability

Clow and Kurtz (2002:13) define variability as the unwanted randomness in the levels of service quality customers receive. Variability refers to the lack of consistency in the inputs and outputs during the production of process of the service (Lovelock and Wirtz, 2011:624). Variations happen because the services are provided by people who are subject to behavioural changes from day to day. Human beings can make mistakes due to bad behaviour as they serve their clients. However, electronic means minimise these variation problems since the same quality of experience is offered to a large mass of customers (Hoffman and Bateson, 2007:72). In fact, the mobile banking system always provides the same level of consistent service 24/7 to its banking consumers. Mobile banking provides tailor-made services to customers in order to respond to customer complains effectively (Hoffman and Bateson, 2007: 72).

Hoffman and Bateson (2007:72) note that e-services assist customers in helping themselves, thus empowering them by transferring the service production function into their hands. By so doing in mobile banking, consumers become active participants in the service process to the extent that banking services consumers become the mobile bank's partial employees. This improved interactivity may reduce labour costs as some of the functions are transferred to the service user. If the customer is now working for the service provider (Hoffman and Bateson, 2007:72), analysts need to ask if this does not burden clients because some are passive recipients of information. However, companies may deal with variability in service quality by supplying consistently standard services (Clow and Kurtz, 2004; Hoffman and Bateson, 2007; Lovelock and Wirtz, 2011).

2.13 THE INFLUENCE OF FINANCIAL PRODUCTS AND SERVICES ON ATTITUDE

2.13.1 Perceived Ease of Use (PEOU)

Davis (1989:320) defines perceived ease of use as "the degree to which a user believes that using a particular service would be free of effort". Perceived ease of use is the same as the relative advantage as noted by Rogers (1995) who says that it is the extent to which an innovation is better that current alternative means. If the performance of the current system or innovation does not surpass the previous one, then consumers are likely to see no advantage of vying for it. So they are likely to resist using the new technology (Ram and Sheth, 1989; Dineshwar and Steven, 2013). In the same manner, if mobile banking is seen as not better than traditional banking, the rural unbanked are likely to respond accordingly.

Perceived ease of use by Davis (1989) is referred to as the complexity of the technology as identified by Rogers (1995, 2003). Rogers (1995:242) defines complexity as the "the degree to which an innovation is perceived as relatively difficult to understand and use". This is similar to perceived ease of use but limited in scope as it does not accommodate other variables under perceived ease of use as considered by Davis (1989).The more complex the innovation the slower it will be adopted by consumers (Rogers, 1995; Mattila, 2002; Liu and Li, 2009; Tobbin, 2012). Mattila (2002) advances that generally perceptions held by consumers about financial transactions through mobile channels are often inversely related to the user's experience with technology. She furthers argues that the complexity of products depends on the ability of the consumer to generate new knowledge about the mobile banking experience.

2.13.2 Trialibility

According to Rogers (2003:16), trialability is "the degree to which an innovation may be experimented with on a limited basis". The adoption of the new technology tends to be faster when it can be tried before fully implemented, whereas the adoption will be slow where a system is implemented without prior trial (Puschel *et al*., 2010: 394). This view is supported by Rogers (1995:243) who says that the trialability of innovation is positively related to adoption rate. Sahim (2006:18) notes that trialibility positively influences the rate of adoption. He adds that "vicarious trial" is quite important for later adopters as they share information with peers. Rogers (1995) observes that this attribute is more important to early adopters than later adopters. However, Aldas-Manzano *et al*. (2009) hold a different view that in financial services it is difficult for customers to try them before use. However, the financial consumer may be afforded a few functions of the mobile service before fully adopting it.

Arnould *et al*., (2002:580) consider trialability as the consumer's ability to try out an innovation without incurring a risk to more valued resources. Solomon *et al*. (1999:296) assert that the high degree and unknown perceived risk associated with new products calls for people to experiment first with innovation before they fully adopt it. In a bid to deal with this problem, companies often pursue very expensive strategies such as free trial samples of the new technology in order to promote adoption. Celebrities may be hired to advertise a new consumer service and report their findings to their fans (Arnould *et al*., 2002:580). New products particularly fail because they encounter difficulties with consumers especially when they affect and even harm the bodies or sense of self (Arnould *et al.,* 2002:580). Trialability is positively correlated with the rate of adoption (Sahin, 2006:18).

2.13.3 Accuracy of transactions and speed

In connection with the speed of e-transactions, it is significant to note that clients for financial services are often interested and motivated to use services with a great deal of accuracy. Realising the risks that are associated with an electronic means of services delivery, financial consumers hold the perceptions that they are likely to lose their money due to incorrect transactions they may experience.

Mobile network operators (MNOs) have been upgrading their networks to deliver data more quickly to their clients. From the consumer's perspective, speed and quality go hand in hand (Nicol, 2014:70). The speed of e-transactions is quite critical if users are to be satisfied by e-banking services (Poon, 2008:66). Customers need unique application features that enhance the speed of delivery. Mobile phones provide services at very fast speeds. Mobile banking provides the benefit of real-time distribution of services and this feature is quite crucial and attractive for services that are real-time critical and demand a fast response (Tiwari *et al*., 2006). The feature of speed brings convenience to the user as there is no time being consumed through dialling up and booting processes are not necessary (Accenture, 2014). The SMS ensures that information is made available to the financial consumer at the right place, at the right time, in the right format. Therefore, customers will favour services that provide time-critical performances, for example a fast reaction to stock market developments regardless of current geographical location (Tiwari *et al*., 2006:5).

2.13.4 Perceived usefulness

Perceived usefulness (PU) according to Davis (1989:320) is defined as "the degree to which a person believes that using a particular system would enhance his or her job performance". He suggested that information technology could facilitate the person's job performance. Put differently, PU refers to the

"subjective probability that using a specific application system will increase his or her job performance within an organisational context" (Davis, *et al*., 1989:985). Aldas-Manzano *et al.* (2012) cited in Dineshwar and Steven (2013:6) assert that perceived usefulness refers to the benefits that cell phone banking promises and refers to whether the use of cell phones is useful for conducting transactions financially. Linked to this attribute, Rogers (1995:212) calls this a relative advantage when he defines it as "the degree to which an innovation is perceived as being better than the idea it supersedes". Potential users need to know the extent to which a new technology is better than the existing one. For example, financial consumers would consider the relative advantage of mobile banking over traditional banking. If mobile banking is considered better, then the financial consumers would be prepared to take up the ideas more quickly. Rogers (1995:216) argues that researchers have found that relative advantage is one of the best indicators or predictors of adoption rate.

2.14 PRICE SATISFACTION DIMENSIONS'S INFLUENCE ON ATTITUDE

Lovelock and Wirtz (2011:622) view prices as expenditures of money, time, and effort that customers incur when purchasing and consuming products and services. However, the KPMG survey (2013) contends that prices measure the consumer's perception of fees, charges and rates on products. Hoffman and Bateson (2007:167) argue that the development of effective pricing strategies is important in influencing customer purchase decisions. Again, they note that pricing has remained one of the least researched and mastered areas of marketing. Research concerning pricing in mobile banking services is lacking. The pricing of services and tangible goods may be the same but may still vary due to the distinct attributes of the services discussed above. Price satisfaction dimensionality comprises such components as price transparency, price-quality ratio, price confidence, price fairness, price reliability and relative prices (Matzler *et al*., 2006:216). The price of a service is normally determined by such factors as cost, quality, demand, competition, perceived value, image value, and time of service delivery (Hoffman and Bateson, 2007; Lovelock and Wirtz, 2011). Clow and Kurtz (2002:240) argue that quite often, consumers use prices for forming expectations of a service and in making purchase decisions. Additionally, prices are used to evaluate the quality of service as it is felt that service quality is positively related to price (Hoffman and Bateson, 2007:181). They add that customers are likely to use prices as a cue for quality. Prices are also used when launching a new product such as a mobile banking service.

Price has the role of a purchasing determinant as well as post-purchase process (Matzler *et al*., 2006:217). A study by Keaveney (1995:73) reveals that 50% of customers switched because of poor price perceptions when compared with competitors. However, in research it is surprising to note that price as an element of the marketing mix is not given its due respect when studying mobile banking

adoption as several authors (Mattila, 2003; Daudi *et al*, 2011; Tobbin, 2012; Chitungo and Munongo, 2013; Dinshwar and Steven, 2013) rush into investigating innovation attributes and user characteristics. Little is known about the antecedents and effects of price on consumer attitude and behaviour. A few studies conducted by Luarn and Lin (2005), Raleting and Nel (2010), Tobbin (2012), and Venkatesh *et al*. (2012) tried to show the influence of perceived cost and economic factors without clearly spelling out the implications of the price element on the attitude to adopt mobile banking. Price satisfaction must be treated as a multidimensional construct and with several dimensions influencing overall customer satisfaction and ensuing behavioural outcomes (Dan and Silivia, 2008). As price problems and needs become complex in the consumer decision making process, as a result, a differentiated treatment of price needs be pursued. Therefore this study proposes to make a close examination of the influence of prices on consumer attitude and behaviour to close this gap. Zimbabwe's population is unique in that it is sensitive to the dynamics of the financial services sector based on the experience with galloping inflation (Dermish *et al*., 2012:28). This feature therefore calls for banks to serve the critical market potential, as consumers have little experience of operating in the formal financial sector, especially the unbanked consumers. The following figure 2.9 shows the relative importance of dimensions of price satisfaction in the decision making process.
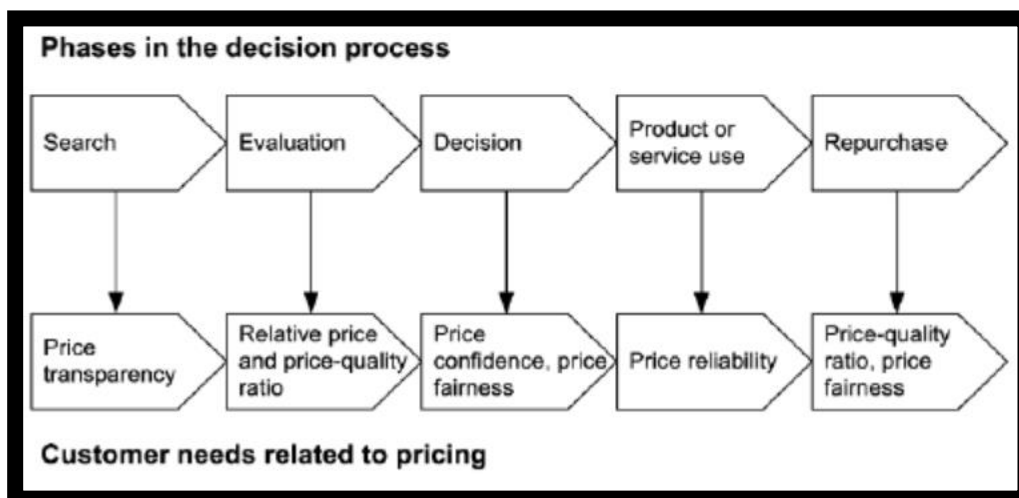
Fig. 2.11 Phases in the decision making process. Source: Adapted from Diller (1997).

2.14.1 Price transparency

Price transparency happens when consumers can easily get a vivid, understandable, more current and effortless overview of a company's listed prices (Diller, 1997). Perceptions of price unfairness affect consumer perceptions of the products and ultimately their willingness to patronise a service (Schiffman and Kanuk, 2004:186). Matzler *et al*. (2006: 219) argue that "customers increasingly demand open, honest and complete information" as their power increases due to improved access to

information, general distrust, and increased communication between consumers themselves. Customers have to search and evaluate prices which may increase the costs of ownership, so the more these costs diminish the better consumers develop higher price satisfaction (Dan and Silvia, 2008) and the better they develop an attitude toward the service. Matzler *et al*. (2006:219) comments that banks in the United States have installed software-based advisors on all products and price related information to ensure transparency in their dealings, and consumers have been satisfied. With relative prices, the consumers make comparisons of prices in the decision making process given several alternatives. Diller (1997) asserts that the relative price of services directly affects satisfaction with the price and as a result satisfaction with the offer. This means that consumers are satisfied when they do a comparison of prices and they are very likely to develop a positive attitude if the relative prices satisfy them.

2.14.2 Price reliability

Diller (1997) cited in Matzler *et al*. (2006:221) defines price reliability as the "fulfilment of raised price expectations and prevention of negative surprise". If consumers are to adopt mobile banking, there should be no hidden costs and prices do not need to change unceremoniously and unexpectedly if they are to be reliable. Diller (1997) posits that consumers need to be appraised and briefed about any possible changes in prices and they perceive as unfair if a dynamic alteration in prices is effected and as a result effect the service. Hidden costs if discovered in the long term by consumers may be resisted for they feel that it would be unfair. The unbanked need protection from unscrupulous price activities by banking institutions and MNOs who may exploit them in order to reap abnormal profits.

2.14.3 Price-quality ratio

Matzler *et al*. (2006:219) assert that buyers attribute some value to products and services basing on their price and quality perceptions. Zeithaml (1988:3) defines perceived quality as "the consumer's judgement about the product's overall excellence or superiority". Customers are likely to purchase a product or service provided that their perceptions about product or service exceed the associated costs of acquiring them. Monroe (1990) submits that consumers should balance between the perceived qualities of a product relative to that sacrifices they perceive about the price paid. Several empirical studies have been centred on the customer value (Matzler *et al*., 2006:220). Some studies assessed the influence of price-quality ratio on overall price satisfaction (Fornell *et al*., 1996; Voss *et al*., 1998) and discovered that price-quality ratio directly influenced price satisfaction. However, favourable price-quality ratio will result in consumers getting satisfied while the reverse will be true. Jiroft and Nazari (2013:34) affirm that in a situation whereby perceived-quality surpasses perceived costs, expected customer value will be high.

Researchers are concerned with how consumers respond to the way products are priced, questioning how consumers perceive prices and why they perceive them the way they do (Baines *et al*., 2011:333). Until now, research on information technology has widely focused on the innovation attributes and user characteristics (Alsheikh and Bojel, 2012:178) without proper attention being given to the consumer's value driven satisfaction from technology and its relative significance in mobile banking adoption. Alsheikh and Bojel (2012:178) continue to argue that little attention has been paid towards investigating the value being promised by a mobile banking system. By not considering the quality of mobile banking, researchers become myopic from the marketing point of view since not only innovation attributes and user characteristics determine the adoption of innovation. This gap will be closed by considering the unbanked consumers' views on the value drived from the intended use of mobile banking services. Consumers normally go through a decision making process before they purchase a service or a product and in that mental process they weigh the trade-off between what they get and what they part with (Alsheikh and Bojel, 2012:178).

2.14.4 Perceived Costs

The possible expenses of using mobile banking many include equipment costs, access cost and transaction fees. Jeneker *et al.* (2010) reveal that there is a need for large sums of money to ensure infrastructural investment to make the formal financial channels accessible to communities. This makes the provision of the services relatively expensive especially at the introduction stage of the mobile banking system. The cost of introducing the service will be high since the service providers strive to recover the unexpectedly high research and developments costs and this will lead to the unbanked to opt out of using new banking channels. Porter and Donthu (2006) cited in Raleting and Nel (2010:212) found that lower income consumers usually resist services with high costs. However, mobile banking transactions are quite low compared to ATMs (Ivantury and Pickens, 2006) and the low income groups are likely to develop a positive attitude towards it. However, costs have a significant and negative influence on adoption of mobile banking by low income people (Luarn and Lin, 2005; Raleting and Nel, 2010:213).

Marketers need to understand how the unbanked perceive service with regards to pricing. Lovelock and Wirtz (2011:163) strongly advance that as customer purchase services they often weigh the perceived benefits against they perceived cost they will undergo. The perceived net value which is the difference between all perceived benefits minus all perceived costs, is often considered by prospective users of a service. If they perceive net value as negative, then they will not buy (Hoffman and Bateson, 2007; Lovelock and Wirtz, 2011:163). Based on intuition, the unbanked are likely to develop a positive attitude towards a service that offers positive net perceived value.

Although costs are often considered financially, it is important to consider them also in non-monetary terms when trying to predict the attitude and behaviour of users of mobile banking services. Lovelock and Wirtz (2011:164) assert that consumers often consider their time, effort, and discomfort they incur as they search and purchase services. Non-monetary costs tend to be higher in traditional banking as clients travel long distances to withdraw their money since the customers need to be present in the production of the service (Jeneker *et al*., 2010). As a result, consumers are likely to suffer psychological costs such as anxiety. Where customers save time in order to obtain a service, they are likely to adopt it, unlike if more time is required. Traditional banking involves many physical costs such as fatigue and discomfort that are incurred when customers visit the physical branch to obtain services through waiting to get service.

However, mobile banking is effective in saving the above noted costs, as clients do not need to queue often, as they get services in the comfort of their homes. Lovelock and Wirtz (2011:166) suggest possible remedies to these non-monetary costs in order to improve the adoption of possible services. Operations managers need to reduce time when delivering the service as this motivates customers to engage in services particularly those customers who spend time to serve money. There is also a need to minimise psychological costs by eliminating inconvenient procedures and educating customers on what should be expected of themselves. Web pages can be improved in order to minimise unwanted physical effort when searching and delivering the service. Charging minimal fees can drive greater engagement from customers which will be critical for future opportunity capture, and cross-selling of both financial and non-financial products.

2.15 PROMOTIONAL TOOL'S' EFFECT ON ATTITUDE

In services marketing, much of the promotional activities are more educational in nature especially for new customers (Lovelock and Wirtz, 2011:46) such as the rural unbanked consumers. Belch and Belch (2013:10) define promotion as the coordination of all seller-initiated efforts to set up channels of information and persuasion to sell goods and services or to promote a new idea such as mobile banking. The development of successful marketing communication programmes depend heavily on and begin with, a clear understanding of why consumers behave the way they do. It is significant to note that marketers need to understand consumer behaviour for decision making and should analyse the critical factors that influence the consumer decision making process. Marketers face the challenge of the desire to influence the purchase behaviour of the consumer in favour of the product or service they offer (Belch and Belch, 2013:114).

Marketers are forced to know the specific needs and motives of consumers when trying to satisfy them and how they translate them (Belch and Belch, 2013). These promotional activities are done to

create a favourable attitude toward new products, to reinforce existing favourable attitudes and to change negative attitudes through learning. Promotional activities of mobile banking bear a lot on the intangibility, variability and inseparability of services. Rica (2012:101) argues that services promotion is determined significantly by the complexities of product intangibility not created in the moment of promotion and having the ability to vary.

Banks and MNOs need to teach the unbanked about the benefits of financial products and service, where and when to get them and how they can effectively participate in the mobile banking learning process. Therefore, this study focuses on the use of personal selling, financial education, sales promotion and advertising to educate the unbanked about mobile banking in Masvingo province, to ensure positive adoption.

2.15.1 Advertising

Kotler and Armstrong (2012:494) and Kotler and Keller (2012:G1) define advertising as "any paid form of non-personal presentation and promotion of ideas, goods, or services by an identified sponsor". Abideen and Sallem (2011:57) assert that the main aim of advertising is to reach customers and influence their awareness, attitudes and buying behaviour. Advertising is informative in that it tells people about new products, explains how the new product or service works and reduces consumers' fears pertaining to new products (Kotler and Keller, 2012:495). As a persuasive tool, it tries to build mobile banking brand preference as well as encouraging consumers to switch brands, and changing consumer perceptions about the product's or service's attributes. However, Kotler and Keller (2012:526) posit that advertising persuades customers to purchase the product now by creating liking and preference first. It is important to note that consumer motivations, perceptions, attitudes and beliefs have been substantially under-studied in the mobile banking context. The consideration of the impact of advertising in this study will help to close this gap. Tasheen (2012) indicates that advertising has proven to be quite effective in impacting attitude strength and in shaping consumer behaviour.

Brand awareness is how quickly or easily a brand name can be remembered by consumers when a category is mentioned. If a consumer has enough information about the availability of the service and its value, there would be a high possibility of m-banking acceptance.Consumer awareness is the extent to which financial products consumers are aware of their rights in the digital market place. They need to know their rights and responsibilities in order to make educated and informed purchase decisions and for their protection against exploitation by banks and MNOs. When consumers express their financial rights, consumers take responsibility (Consumer Council of Zimbabwe, 2012). Running awareness campaigns for the unbanked can increase understanding and inculcate financial habits for this market segment.

Dineshwar and Steven (2013:12) remark that informative advertising done by banks has been quite effective in inducing the attitude of customers due to effective awareness. They concluded that the degree of awareness was an enabler of mobile banking adoption in Mauritius although this contradicted Delport's (2010) observation that awareness was a major obstacle towards m-banking. Awareness is not only restricted to consumers simply becoming aware of the existence of mobile banking services butit also goes beyond, by even considering the extent to which consumers know their rights and responsibilities (Rousseau and Venter, 1995:18) with regards to mobile banking use in order to minimise exploitation by banks and MNOs. Knowledge of their right and responsibilities compel the unbanked to make informed and educated purchase decisions (Consumer Council of Zimbabwe, 2014).

Advertising should be done in a way that expresses these rights to the unbanked consumers. Since consumer awareness is a subset of consumerism, as the knowledge of their rights, the unbanked possibly may or may not adopt m-banking if they feel that they are being exploited. Therefore, publicity and advertising launched by consumer pressure groups are likely to both deter and motivate the adoption of mobile banking.

Advertising has the ability to change negative attitudes into positive and, by so doing, a person's predispositions to use mobile banking at the next opportunity increases. Hughes and Fill (2005) strongly claim that by changing perceptions held about attributes, it is possible perhaps to change the attitudes about the product and therefore, if product performance is in doubt by financial consumers, the marketers can use different attributes to change attitude.

2.15.2 Personal selling

Baines *et al*. (2011:410) assert that personal selling involves interpersonal communication through which information is provided, positive feeling is being developed and behaviour is being stimulated. Brassington and Pettitt (2000) define personal selling as a didactic exchange of information that takes place between salespeople and a target segment with the objective of informing, persuading and reminding them, as well as advising them to pursue suitable actions in mobile banking services. Personal selling and advertising are quite crucial promotional mix elements in mobile banking services since they created awareness and developed strong relationships. Promotional issues have become consummately significant and complicated enough for mobile banking services to become a global issue. Despite the academic interest in the drivers and inhibitors for new product development adoption, the role of sales people during new product launches has received insufficient attention. This is a serious fact since multiple studies suggest that vigorous salesforce support for new products is critical to new product launch effectiveness (Kulvik, 1977; Di Benedetto, 1999; Cooper, 2000).

Production managers may think and feel that it is the job of sales persons just to get rid of the product but it is more than this. Good sales persons do not only need to sell to the financial consumer, but should also attempt to help him/her to buy by making a clear presentation of both the advantages and disadvantages of mobile banking. His/her helpfulness results in satisfied customers who are willing to develop long term relationships. The objection to adopting the innovation can be overcome as information is provided in the context of the buyer environment and the convictions and power of demonstrations can be brought to the buyer when requested (Baines *et al*., 2011).

By product demonstration, it is possible to change misunderstanding about the functions of a product. Sales personnel are able to build credibility through the use of an informative strategy based on product demonstration and hands on experience through giving a sample (Fill and Hughes, 2005).

2.15.3 Financial education

The working definition of financial literacy from PISA (2012: 144) is as follows:

"Financial literacy is knowledge and understanding of financial concepts and risks, and the skills, motivation and confidence to apply such knowledge and understanding in order to make effective decisions across a range of financial contexts, to improve the financial well-being of individuals and society, and to enable participation in economic life."

Abel (2014:10) defines financial education as a process whereby knowledge, skills, and attitudes are built in order to become financially literate. Financial literacy can be defined as a process the individual consumer relatively goes through when accepting his or her finances as they are and developing knowledge and skills necessary to select appropriate financial services by shopping around (Buckland, 2010:360). It helps to shape the knowledge of consumers to migrate from reactive to proactive decision making, as consumers try to fulfil their financial objectives. Financial education has the ability to build skills in consumers to use the financial products and services as well as promoting attitudes and behaviours that are supportive of the effective use of scarce resources (Abel, 2014). Financial literacy education programmes are generally assumed to improve consumer behaviour in relation to financial products and services. However, there is scant evidence that demonstrates the link between financial education with attitude and behavioural intention. A few companies and countries have now adopted financial education in their marketing programmes. Again, financial literacy has been found to be a key element of the demand side of financial inclusion yet little is known about this needy area in Zimbabwe.

There is a need to measure financial literacy and capability to determine the level of knowledge of financial products by the rural unbanked. The right to consumer financial education implies that

consumers have the right to gain skills and knowledge (du Plessis *et al.*, 2007) if they are to become informed individuals about their financial lives and choices concerning the purchase of financial products. In support of this argument, Abel (2014) notes that financial education empowers financial consumers to exercise their rights and responsibilities in the consumer protection equation. Schiffman and Kanuk (2004:253) assert that attitudes are learned dispositions, so the study of financial education by the unbanked customers is important to ensure that they know what is expected of them in mobile banking adoption.

While financial education might sound like an uncommercial objective for banking institutions to invest in, Abel (2014) observes that the need for market development through new accounts and increased account activity are distinct motivators for financial organisations to sponsor financial education. However, as part of their publicity promotion, banks need to finance financial education in order to meet their objectives of corporate social responsibility (Abel, 2014) and need to change the attitudes of their clients towards positive liking of the new offers. In a bid to foster a favourable attitude towards mobile banking, banks need to incorporate financial education content into their marketing communication programmes. Allan *et al.* (2014:25) comment that poor financial literacy is a barrier to financial inclusion and therefore call for increased financial education, as properly educated people can use formal financial services. Banks, bank agents, salespersons, non-governmental organisations and the government should partner in order to train the unbanked on savings skills and entrepreneurship in order to maximise the benefits of increased financial literacy (Allan, 2014:25). It is possible to include financial modules in the curriculum of secondary schools in order to encourage young people to develop a positive attitude towards m-banking. This observation is supported by an OECD recommendation (2005:9) which advised that "financial education should start at school. People should be educated about financial matters as early as possible in their lives".

2.16 DIGITAL PLACE'S INFLUENCE ON ATTITUDE

Lovelock and Wirtz (2011:622) define the digital place or the cyber place as the management decisions regarding when, where, and how to deliver financial products and services to customers. Loudon and Bitter (1993:13) view distribution as being concerned with the mechanisms for transferring products and services and their ownership to consumers. The place refers to distribution which is defined as the management process of making a product or service available for use or consumption by a consumer, using direct means, or using indirect means with intermediaries. Kotler and Keller (2012:437) define distribution as the pathway through which products or services follow from production, culminating in purchase and use by the financial consumer. It must be noted that the digital distribution of services is a direct channel which may or not involve intermediaries. However,

in mobile banking services, agents connect the service from the financial institution to the customers especially when cashing in and out.

2.16.1 Dependability

Dependability is the consistency and ability to perform or deliver the promised service reliably and accurately (Lovelock and Wirtz, 2011:407). Dermish *et al*. (2012:41) advance that distribution reliability refers to the rate at which services fail to deploy their expected objectives including the delays and possible financial loses. The delivery of mobile banking services calls for the service providers to be reliable and consistent to ensure that financial products consumers develop a loyal attitude towards their services.

2.16.2 Trust

Overcoming trust challenges is a major barrier in the adoption of mobile devices (Tobbin, 2012:84). Studies by Donner and Tellez (2008), Gu *et al.*, (2009) and Lee and Chung (2009) indicate that trust was a major factor of consumers' behavioural intention to adopt mobile banking. Tobbin (2012:84) discovered from Ghana that the rural unbanked people's trust was heavily influenced by the technology offered, the trust in MNOs and the agents in the distribution network. The complexity of the handset may deter the financial consumer from trusting the mobile service while persistent network fluctuations negatively impact on the rural unbanked consumer's attitude to trust mobile banking services (Tobbin, 2012:84).

The interaction of the financial consumers with the mobile network agents influences trust on a personal level when they are sending, cashing in, and cashing out money. The interpersonal trust needs to be developed between the consumers and the agents to ensure a positive trust towards m-banking (Tobbin, 2012:84). In Kenya, customers have the tendency of trusting the MNO Safaricom who owns the M-PESA more than the network agents (Mas and Ng'weno, 2010:2). Tobbin (2012:85) concluded that the recruitment of agents who are better trusted by the local unbanked people will positively influence the acceptance of mobile services by the rural unbanked people and as a result confidence will be gathered, with trust well elevated.

The study conducted by Das and Pal (2010:7) shows that villagers indicated that they needed to be more aware of the mobile financial services and usage and needed group meetings and training sessions in order to generate more trust in the system and among themselves.

2.16.3 Network coverage

Customers derive great value from a mobile banking system when a considerable number of people are connected and actively using it (Mas and Ng'weno, 2010:2). The more the financial consumers are connected on the network the more value they see from the banking systems since it will be consistent and therefore they may be compelled to develop a positive liking of the banking approach. In Zimbabwe, rural customers have been forced to come to urban areas at substantial costs to receive and send money and this has diminished the convenience and affordability to the existing mobile channels because there is a lack of effectively connected agents in the rural areas (Dermish *et al*., 2012:28). However, when a network is erratic usually impacting on the customers negatively as mobile banking system gather momentum by reaching the critical mass, there will be a challenge to attract early adopters quickly (Mas and Ng'weno, 2010:2) when users are few. In Malaysia, a study by Poon (2008:66) indicated that limited bandwidths led users to experience constant connection breakdown which put off the clients. Yousafzai (2003 cited in Dineshwar and Steven 2013:5) argues that mobile banking is associated with higher risks than traditional banking channels. The network coverage ensures maximisation of financial products and services availability in the market, satisfaction of customers' desires by making the product available to the largest number of customers in as many locations as possible and at the widest range of time (Baines *et al*., 2011:443). Mattila (2003) noted that a faster data transmission rate had a positive impact on attitude to adopt mobile banking by customers in Finland.

2.16.4 Service Convenience

Convenience is a measure of accessibility and the quality of service from the bank's delivery channels (KPMG, 2013). The channel choice for the majority of financial consumers is normally determined by convenience (Lovelock and Wirtz, 2011:137). Customers sometimes do not have much concern about the amount of money spent but about the time and effort spent. So convenience of obtaining the service is important for people to adopt a service channel as they want things that are easy to access. A study by Mattila (2003) concluded that convenience constituted 48.4% of the driving factor for mobile banking adoption as customers had access to their accounts from any location and at any time of the day.

2.17 CHAPTER SUMMARY

In this chapter it has been observed and learnt that the unbanked are indeed unbanked for various reasons. There is a need for a transformational paradigm shift if the unbanked are to be profitably brought into the mainstream banking sector despite the challenges both the financial services providers and the financial products consumers face. To this end, mobile banking has promised to provide the solution towards banking the rural unbanked in Zimbabwe. Contemporary developments

in mobile technology have really caused the conversion of handsets from just plain tools of communication to greatly significant mobile banking gadgets. M-banking investment banks and MNOs might eventually exploit the poor and the rural unbanked people when these companies will be reaping a lot of abnormal profits. This observation calls for total consumer awareness and protection by the concerned stakeholders in the economy. It has been observed that consumer attitudes and behaviour influence each other and the characteristics of attitudes have been articulated. Literature regarding the influence of the traditional marketing mix elements on consumer attitude and behaviour in the digital market space has been critically reviewed resulting in the construction of hypotheses in Chapter 3 leading to the model that guides this study. The next chapter presents the theoretical foundations being borrowed from information systems and marketing disciplines; the conceptual model; and the empirical evidence of mobile banking services adoption. The applicability of the theoretical foundations to this study is critically debated.

CHAPTER 3

THEORETICALAND CONCEPTUAL PERSPECTIVES OF MOBILE BANKING ADOPTION

"Getting a new idea adopted, even when it has obvious advantages is often very difficult." (Everett, M. Rogers, 1995:1)

3.1 INTRODUCTION

In this chapter the background on the adoption of technological innovation and the factors that drive and hinder adoption are highlighted. The main focus of this chapter is to critically evaluate the theoretical perspectives on technology adoption that underpin this study. The theories closely examined include McCarthy's Marketing Mix Paradigm, Roger's Diffusion of Innovation, and Davis's Technology Acceptance Model. The conceptual framework is presented as the Mobile Banking Adoption Conceptual Model (MBACM) which provides the basis upon which this study is centred. Lastly, empirical studies related to mobile banking that are in line with the study's objectives are discussed.

3.2 THEORETICAL FOUNDATIONS

While technology acceptance and resistance have been widely dealt with in information science (IS), less research work has been done in marketing pertaining to mobile banking adoption, yet technology has encroached on the boundaries of several disciplines. Investigation of consumer behaviour requires an interdisciplinary approach due to the fundamentally different nature of the acts and decision processes that compose it (Rica, 2012). Given this observation, as technology is dictating the way marketing discipline functions, its acceptance in the field needs be investigated by importing IS theories of technology acceptance and use, and challenging their relevance in the business field. The marketing mix (McCarthy, 1962); the innovation diffusion (Rogers, 1995, 2003); and the technology acceptance (Davis, 1989) provide the theoretical lens upon which to influence, explain and predict the attitude and behaviour of the rural unbanked consumers in Zimbabwe towards mobile banking adoption.

3.2.1 The Marketing Mix Theoretical Concept

Kotler and Armstrong (2004:56) define marketing mix as "the set of controllable tactical marketing tools-product, price, place and promotion-that the firm blends to produce the response it wants in the target market". On a different note, Perreault and McCarthy (2005:G6) view marketing mix as a set of controllable variables a company combines to satisfy a target group (in the case of this study the rural unbanked consumers). Marketing mix is one of the leading concepts in modern marketing (Kotler and Armstrong, 2004:56). In support of this statement, marketing mix is a quite famous theoretical

framework (Perreault and McCarthy, 2005; Dominici, 2012:17; Dudovskiy, 2012; Eavan and Nazari, 2012:9914; Kotler and Keller, 2012) in the evolution of marketing theory both in academic literature and marketing management practice (Dominici, 2012:17). The marketing mix elements contain everything the firm can do to influence the demand for its products. An effective marketing programme should blend the elements in an integrated whole designed to achieve the organisation's marketing objectives by delivering value to consumers (Kotler and Armstrong, 2004:58). Kent (1986:146) asserts that the marketing mix is a powerful concept which is "the holy quadruple... of marketing faith... written in tablets of stone". In support of this argument, Miller (2006) posits that the 4Ps have been the most influential variables in the development of marketing theory and practice.

3.2.2 Relevance of the Marketing Mix Theoretical Framework

The technological development in banks and financial markets has called for these organisations to be more competitive and therefore need to apply the marketing techniques and strategies to lure customers (Eavani and Nazari, 2012:9914) and to increase the adoption of mobile banking services. Banks and financial institutions have seen fit to adopt the marketing mix elements in order to influence the attitude and behavioural intention to adopt mobile banking.

Gronroos (1994:5) and Constantinides (2006:408) strongly posit that while the marketing mix is seen as a toolkit of transaction marketing, there is very limited empirical evidence on the real role and contribution of the marketing mix towards the progress of most commercial businesses. Therefore, this study seeks to close such a gap by considering the traditional marketing mix's influence in the digital markets and environment. Again, this discourse surrounding the marketing mix concept tends to be primarily based on theory rather than on empirical evidence. There is a lack of information about how exactly the 4Ps may influence the adoption of mobile banking. The unreliability of current research data on the way marketing mix variables may be used to deal with marketing problems in the digital marketplace, will be addressed empirically by this research work.

Wilson and Gillian (1997:89) comment that marketing mix involves developing products and services to meet the needs of target segments (established by marketing research), communicating their benefits to the target audiences, and ensuring that they are available in the right place, and at the right price. In view of this statement, the marketing mix fits very well into this study since it seeks to establish how best the 4Ps may be used to influence the attitude of the unbanked rural people to adopt mobile banking.

The marketing mix concept involves some models that are meant to analyse data from several sources in order for researchers to clearly understand the impact of specific marketing activities (Kotler *et al*., 2009:102; Kotler and Keller, 2012:138). In a bid to understand the impact of marketing mix elements on consumer behaviour outcomes such as attitude, choice and preferences, marketers often conduct

multivariate analyses such as regression analysis (Kotler *et al*., 2009:103; Kotler and Keller, 2012:138). This is relevant since the 4Ps' influence on attitude and behavioural intention to adopt mobile banking is to be considered in the coming chapters. In support of the above, marketers have advanced the use of the scientific method in designing hypothesis tests in which results from several mixes have been measured (Eavani and Nazari, 2012:9917). This study adopts the marketing mix elements in order for the researcher to learn how to subject the hypotheses set of the mix to empirical check.

The concept of the marketing mix has been widely adopted by both managers and academics and it has become a significant element of marketing theory and practice because it is simple to understand and to use for marketing decisions, business problem solving, and teaching (Dominici, 2009:17; Eavani and Nazari, 2012:9917). In the words of Jobber (2001:19): "The strength of the 4Ps approach is that it represents a memorable and practical framework for marketing decision-making and has proved useful for case study analysis in business schools for many years". Further to this, Eavani and Nazari (2012:9917) comment that the marketing mix provides a checklist that guides marketing managers' thinking when dealing with complex marketing questions or problems.

The marketing mix theoretical concept is relevant to this study in that the search for a dominant and universally acceptable paradigm for operational decisions in the digital environment is underway (Dominici, 2009:20). This can be attributed to the fact that there is information asymmetry about the full potential of information capabilities and there are insufficient studies in this area, and the industry has not reached its maturity level which the industry reached during McCarthy's invention period. Given this view, the 4Ps paradigm therefore still remain dominant despite the technological changes in the banking and financial institutions.

The marketing mix is a powerful concept in that managers can use it to allocate resources among several demands of the marketing mix variables (Goi, 2009:2, and Londhe, 2014:337). Low and Tan (1995) support that such a vital contribution aids in promoting the marketing philosophy in a company.

It is quite important for managers to design suitable separate marketing strategies for the unbanked people. Chikweche and Fletcher (2012:517) conclude that for an organisation to succeed in serving the Bottom of the Pyramid (BOP) market segment there is need to customise the marketing mix instead of having a global approach. The marketing mix model is suitable for this study because given the aforementioned conclusion, this study aims at showing how the Mix elements influence the attitude and behavioural intention of the rural unbanked consumers to adopt mobile banking.

3.2.3 Weaknesses of the Marketing Mix Theoretical Concept

The marketing mix framework has become the pillar of marketing management and has been subject to criticism (Miller, 2006; Dominici, 2009; Dudovyskiy, 2012; Eavani and Nazari, 2012). The marketing mix is substantially criticised for being a seller-oriented or production-oriented definition of marketing (Kotler and Armstrong, 2004:58; Eavani and Nazari, 2012:9918). Therefore it tends to ignore the buyer's perspective. Dominici (2009:18) asserts that the marketing model is internally oriented and this has led to a lack of customer orientation and inadequate consideration of customer relationships. In modern marketing in the age of customer relationships, the four Ps are largely understood as the four Cs in which the product refers to customer solution, the price being seen as customer cost, the place referring to customer convenience and the promotion refers to communication to the customer (Lauterborm, 1990:5). The researcher hopes to deal with this weakness by considering more closely the 4Cs model in order to accommodate the customer's view. This view is quite well recommended by Kotler and Armstrong (2004:58) and Schultz (2001) as cited in Dominici (2009:18) who argue that marketers need to seriously understand the 4Cs first and then they can build the 4Ps from this platform. It is believed that there is a misconception about the relationship between marketing mix and marketing concept. Moller (2006) feels that the 4Ps paradigm is quite consistent with the marketing concept which in essence states that the marketing function should be based on customer needs and wants identification and gathering information from customers to meet their needs through segmentation, targeting, positioning and differentiation.

However, some critical authorities have questioned the relevance of the marketing mix in influencing the attitude toward the adoption of new products as it has been felt that the four Ps omit or underemphasise important marketing activities (Kotler and Armstrong, 2004:58). Fakeideas (2008) discovered that the traditional marketing mix does not take account of the unique elements of services marketing, the management of relationships and industrial marketing (Constantinides, 2006:409). The revisionists of the marketing mix theory as a popular theoretical and practical element of contemporary marketing have been really doubtful and have expressed objections to the value of the Mix, some suggesting extensions and minor modifications to entire rejection (Constantinides, 2006:409; Dominici, 2009:17). It was felt that the 4Ps paradigm is totally obsolete (Grönroos, 1994; Dominici, 2009). However, the researcher as a conservative feels that there is no need to add other Ps to the traditional marketing mix as the other Ps suggested by Booms and Bitner (1981) may be incorporated in the generic mix. Buttle (1989) cited in Jobber (2001:19) concluded that there was no valid reason why the further 3Ps may not be incorporated within the 4Ps framework. In support of this argument Jobber (2001:19) acknowledged that people, processes, and physical evidence may be neatly discussed under the product element, while the noise about relationship building may be reduced if considered under promotion.

For example, physical evidence can clearly be treated as a place variable, while the people element should be forced under personal selling of promotion and processes treated as part of product. In the case of services marketing, the unique nature of service characteristics can be accommodated under product as service products (Kotler and Armstrong, 2004:58). Supporting the conservative researcher, Kolter and Armstrong (2004:58) contend that the issue is not about the number of Ps but what the theoretical framework offers in designing marketing programmes and influencing attitude and behavioural intention to adopt new products.

The marketing mix is again criticised for not being interactive as McCarthy (1964) never thought of the communication capabilities of the mobile phone and the Internet. In those days, the marketing mix concept was influenced by the manufacturer's perspective (Dominici, 2009:18). In view of this limitation, the adaptive nature of the 4Ps permit them to adapt to the digital environment as the 4Ps continue to be dominant as it is adequate to alter sub-mixes within each traditional P through the addition and deletion of some variables (Domonici, 2009:18).

The researcher as a conservative has noted with serious concern that previous and recent studies by Burrell and Morgan (1979), Gronross (1994,1997), Mattsson (1997), Constantinides (2006); Mooller (2006); Goi (2009); Dominici (2009); Dudovskiy (2012); and Eavani and Nazari (2012) are pieces of research that are based on purely theoretical grounds and debate. A few studies have tried to apply the influence of the Mix elements on the Bottom of the Pyramid's (BOP) attitude and behavioural intention in consumer behaviour in Africa (Chikwechwe and Fletcher, 2014:508). This research deals with this problem or flaw, by empirically testing and analysing the influence of the Mix elements on the attitude and behavioural intention to adopt mobile banking by the rural unbanked consumers in Zimbabwe.

Many analysts feel that the Mix theory does not contain any theory based advice for organising marketing activities and programmes. Goi (2009:2) asserts that the Mix paradigm is not seen as a scientific theory but a mere conceptual framework that guides managers in structuring their offerings to meet their consumer needs and wants. While this may be agreed to, it is unfortunate that this limitation affects a great degree of theory development in the marketing discipline. Moller (2004:444) observes that all normative theories of marketing, be they in services marketing or the Internet, heavily depend on consumer behaviour theories and research for the vital understanding of consumers as customers. In the same vein, this research study deals with this limitation by considering the fundamental contribution of consumer behaviour theories such as the diffusion of innovation by Rogers (1995). Despite these limitations of the Mix paradigm, Kent and Brown (2006) cited in Goi (2009:5) argue and maintain that the 4Ps remain a staple of the marketing mix.

3.3 INNOVATION DIFFUSION THEORY (IDT)

Over the past 40 years the adoption of new technology or innovations has been quite popular around the world. The most widely used theory in studying new technology was the one postulated by Rogers (1995) as it has been used in such fields as political science, marketing, information systems, public health, education, economics, agriculture, psychology and history (Stuart, 2000; Mattila, 2002; Lee *et al.,*2003; Liu and Li, 2009; Dineshwar and Steven, 2013). Rogers (1995) posits that the theory classifies adopters into categories and it follows a bell-shaped distribution curve which is divided into five distinct parts. Diffusion researchers have been confined to investigating the human differences in innovativeness resulting in categorising adopters basing on identified differences (Rogers, 1995:204). However, this has left a very big gap by not focusing on the attributes of the innovation itself since these have been found to influence significantly the adoption rate (Rogers, 1995:204). Researchers have tended to oversimplify their results by regarding all innovations as equivalent units from an analysis viewpoint. But Rogers (2003:1) warns by saying, "Getting a new idea adopted, even if it has obvious advantages is often difficult." This warning is quite important to decision makers and they should observe critical attributes of innovation.

3.3.1 Defining Adoption

Rogers (2003:117) defines adoption as a decision to make "full use of an innovation as the best source of action available" while rejection is regarded as a decision "not to adopt an innovation". Rogers (1995:204) defines the rate of adoption as "the speed with which an innovation is adopted by members of a social system". Arnould *et al.* (2002:597) define adoption as the stages through which individual customers pass through in decision making to accept or to reject an innovation thereby reflecting their buying habits. Marketers are keen to know the adoption process because it helps to effectively segment the prospective users, understand the numbers intending to adopt and the timing of their adoption (Arnould *et al*., 2002:597). This rate indicates the number of people who accept the new technology or idea. From this discussion, it can be said that there is a possibility of a new technology being accepted, or being rejected resulting in its failure.

3.3.2 The Main Element of the Diffusion of Innovations

3.3.2.1 Innovation

Arnould *et al*., (2005:712) define innovation as "new things and ideas and new ways of behaving and interacting with things". Rogers (2003:12) describes innovation as "a new idea, practice, or project

that is perceived to be new by an individual or other unit of adoption". Although an innovation might have a long time after invention, it is perceived as new by individuals who would not have used it. The rate of adoption is heavily influenced by the old idea it supersedes (Rogers, 1995:227). If the new idea is similar to the old one, then there is no innovation in the minds of the adopters. An innovation has a tendency to create uncertainty within the prospective users which is an important obstacle to the adoption of innovations (Sahin, 2006:14). Rogers (2003:436) notes that the consequences of innovation cause changes in the social system which brings in uncertainties. The consequences of this change are likely to cause increased adoption or rejection of the innovation. New technologies have been found to disrupt existing psychological equilibrium patterns of consumers and require psychological adjustments by them and therefore many consumers resist innovations (Ram and Sheth, 1987). The reduction of uncertainty in innovations may be done through the provision of clear information about the advantages and disadvantages of the possible innovation consequences (Sahin, 2006:14).

3.3.2.2 Relevance of the Theory

Rogers' (1995:5) definition of the diffusion of innovation highlights the existence of innovation, communication, and highly powered processes taking place in a society. The new idea may be accepted or rejected by members of the society (Nutley *et al*., 2002:4). Mobile banking implementation concerns the use of new banking services, practices, the promotion and communication of these, adoption, use or changes to attitude and behavioural intention.

The critical insights brought about by the diffusion of innovation information dissemination to utilisation, make this theory relevant to this study. Well developed and implemented mobile banking services may spread within the population of users. As a result, the gap between "what we know and what we do" is reduced (Cousins and Simon, 1996 cited in Nutley *et al*, 2002:4).

Rogers (1995:284) supports that the theory is ideal because it reflects the direct effects of mass media, and immediate and powerful effects on the mass audience. The theory fits very well in this study since it has a major construct of promotion, for example advertising, that easily influences consumers with weakly held attitudes towards the adoption of innovation.

The researcher feels that this theory is very relevant to this study, in that it advocates for the use of change agents like salespeople. This study considers the influence of sales people as agents that are there to convince the unbanked people to try mobile banking in Masvingo province. Sales people are agents who introduce into the society innovations that they expect will have consequences that are desirable, direct and anticipated (Ellsworth, 2000).

Rogers' theory also fits well in this study because the adopter categories have the ability to segment the market into clear and measurable segments. With this argument, the researcher was able to segment the market into banked people, under-banked people, and unbanked people. The unbanked people represented the laggards who adopt an innovation when all in the society have tried it. Understanding users such as laggards is important for this research since intervention strategies such as financial education and training may be designed with these users in mind (Dillion and Morris, 1996:7).

This theory is also relevant to this study because it can be combined with Davis's (1995) theory. They are similar in that perceived usefulness is congruent with relative advantage while perceived ease of use is similar to complexity. This in effect makes it possible to integrate the two theories in order to improve the predictive power of the constructs involved (Puschel *et al,* 2010:390; Riquelme and Rios, 2010).

One of the strengths of the diffusion of innovation (DOI) theory is that Rogers reviewed thousands of studies in which an integrated amount of empirical research was done (Ayodele, 2012). A theory becomes very weak if it is only tested on a few cases. It was quite consistent with most findings from effects surveys and persuasion experiments and it is quite practical.

Oyodele (2012: online) comments that DOI is the root of many promotional communication and marketing theories and campaigns which they support still today. This makes this theory relevant to this study.

3.3.2.3 Limitations of the Theory

The theory is heavily criticised for its definitions of the attributes of innovation which are based on the perceptions of innovations instead of the actual use of the system (Moore and Banbasat, 1991:196). This argument is strongly supported by Fishbein and Ajzen (1981) who posit that the attitude regarding an object and behaviour is quite situational and frequently differs.

While this theory is essential in predicting attitude and behavioural intention, it must be noted that the innovation attributes used by Rogers (2003) are strongly product-based, thus ignoring the influence of price related and distribution factors. This study hopes to deal with this limitation as it has incorporated price and distribution related variables in the proposed conceptual model.

Research conducted by Li and Sui (2011:160) reveals that innovation diffusion literature found that theoretical literature is much more than empirical research. In view of this discovery, this research is aimed at contributing towards empirical research since the diffusion of innovation variables are tested empirically from the hypothesis set.

3.4 THE TECHNOLOGY ACCEPTANCE MODEL

The bulk of the past decade has experienced historical research on mobile banking by applying theories which had traditionally been used in Information Systems (IS) literature (Venkatesh and Davis, 2001; Li *et al*., 2006; Dass and Pal, 2010; Wessels and Drennan, 2010; Dineshwar and Steven, 2013). One of the most widely used and confirmed theory is the technology acceptance model, a leading information systems theory that was propounded by Davis (1989) to determine and predict the attitude and behavioural intention to adopt technology. Davis (1989) developed his theory from the classical works of Fishbein and Ajzen's (1975) Theory of Reasoned Action (TRA) (Sangle and Awasthi, 2011). Dillion and Morris (1996) argue that Davis *et al*. (1989) dropped subjective norms from the Fishbein and Ajzen's theory as they argued that subjective norms were dependent on prevailing contexts. When TAM was being developed, Davis *et al*. (1989) found that subjective norms did not fit their study, so there was a need to delist them from the predictive variables. It is believed that social influences had no impact on the individual use of systems in the workplace. TAM is an information system theory that models how users come to accept and use technology (Davis, 1989). When users are presented with a new technology, numerous factors influence their decisions considerably about how and when to use it. Understanding the user's behavioural response to an innovation is significant in the technology adoption process (Mulwa and Ndati, 2013:369).

This theory is based on the two main constructs of perceived usefulness and perceived ease of use. These two are thought to influence the behaviour to accept and use technology. Al-alak and Alnawas (2011:205) argue strongly that users with positive attitudes toward information technology are likely to develop higher acceptance rates than those with negative attitudes.

The following figure shows the original Technology Acceptance Model as propounded by Davis (1989).
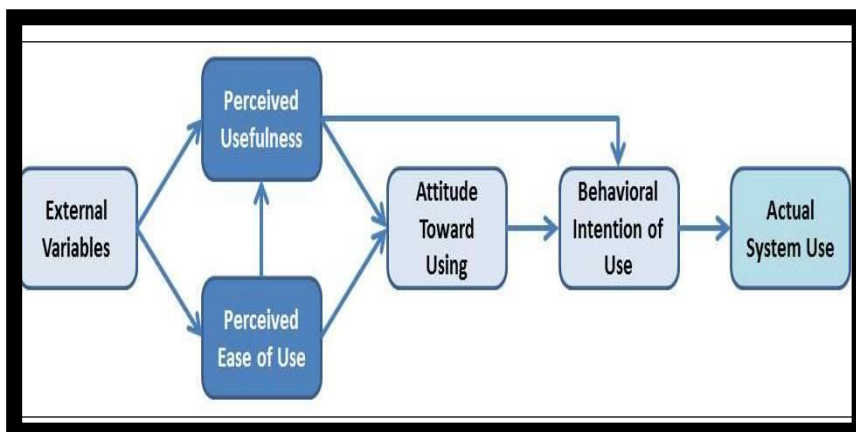
Fig. 3.1 Technology Acceptance Model (TAM). Source: Adapted from Davis (1989).

3.4.1 Perceived Usefulness

This construct is defined by Davis (1989:320) as "the degree to which a person believes that using a particular system would enhance his or her job". Perceived usefulness refer to the advantages that a technology provides to users (Aldas-Manzano *et al*., 2009). Davis *et al*., (1989:985) further defines perceived usefulness as "the user's subjective probability that using a specific application system will increase his or her job performance within an organisation context". When a system is high in perceived usefulness users will be motivated to use it just as they are motivated by financial motivators. The influence of perceived usefulness on the use of a system was suggested in the classical work of Schultz and Slevin (1975 as cited in Davis 1989:321). Systems that are unable to help people perform their jobs better are less likely to be accepted by users (Robey, 1979:537). Perceived usefulness is the strongest predictor of a user's attitude towards the use of information technology (Davis, 1989; Venkatesh *et al*., 2003; Yang, 2004). Given these discussions, perceived usefulness positively influences the attitude to adopt a new technology. In contrast, some studies have found no relationship between perceived usefulness and attitude (Jackson *et al*., 1997; Bajad and Nidumoulu, 1998). Lucas and Spitler (1999:303) indicate that relationships could not be developed between perceived usefulness and attitude and behavioural intention to use new technology.

3.4.2 Perceived Ease of Use

Davis (1989:320) defines it as "the degree to which a person believes that using a particular system would be free of effort". This refers to the complexity of the technology intended to be used. Davis (1989:320) asserts that if systems should be observed as too hard to use the related performance benefits of usage are more than offset by the effort of using the application. Davis (1989:320) comments that an application that is not difficult to use will be easily adopted than a difficult one. Davis (1989:321) posits that the perceived ease of use is well supported by the self-efficacy theory as postulated by Bandura (1982:122).He discovered that outcome judgements once successfully implemented influence behaviour. Bandura (1982:140) further notes that behaviour can best determined by considering self-efficacy and outcome beliefs.

Perceived ease of adoption can influence the attitude to adopt a technology (Mulwa and Ndati, 2013:369). Studies by Davis (1989:333); Mathieson (1991) and Adams *et al*., (1992:239) suggest that the perceived ease of use has a significant relationship with perceived usefulness, attitude, behavioural intention and actual use. From his study, Davis (1989:334) asserted that the causal influence of perceived ease of use on perceived usefulness made a great deal of sense and concluded that the easier a system is to interact with, the less the effort will be required, thus positively contributing to the overall success of the organisational performance. In contradiction, such researchers as Jackson *et al*., (1997), Hu *et al*., (1999) and Chau and Hu (2001) did not find any positive relationship between the perceived ease of use and perceived usefulness.

3.4.3 Attitude Toward Usage

Consumer attitude towards products and services really influences their behavioural intention and as a resultant the intention is guided by their behaviour (Cheng *et al*., 2013:15). In normal cases consumers evaluate products based on their beliefs and feelings (Engel *et al*., 1995).

3.4.4 Behavioural Intention

Behavioural intention is often measured in terms of conative loyalty (Khan and Kadir, 2011:4090). Behavioural intention can be economic behaviour, willingness to pay more, brand switching and word of mouth communication (Smith *et al.,* 1999, Chen and Tsai, 2007). Currently, there are no convincing theories about intention as it seems that it is one of the understudied areas in consumer behaviour (Khan and Kadir, 2011:4090). Behavioural intentions are an outcome of the satisfaction process.

3.4.5 Actual Usage

Davis (1989) argues that system use is a response that is guided directly by exogenous variables comprising of the actual system's features and capabilities. El-Qirem (2013:232) adds that the amount of time, usage rate, actual number of uses and diversity of usage are measures of actual behavioural use.

3.4.6 Relevance of the Theory

This theory is relevant since several models and their theories have their roots in TAM originally developed by Davis (1989)which has been used to investigate mobile banking adoption (Lule *et al*, 2012:32). It is a widely used, tested, validated and accepted theoretical model which can be changed by using other theories or constructs (Zhang *et al*., 2008; Le and Chung, 2009; Shin, 2010; Yen *et al*., 2010; Tobbin, 2012; RezaeiDolatabadi *et al*., 2013). Lule *et al*. (2013) comment that the meta-analysis done by Lederer *et al.* (2000) examined 15 published studies and they supported the use of TAM as a strong predictive model of different technology use. Research done by King and He (2006) of 88 published papers held the same results as above. In support of the above, several pieces of research on mobile banking have extended TAM: Mattila (2002), Das and Pal (2010), Puschel *et al*. (2010), Tobbin (2012), Chitungo and Munongo (2013), and Dineshwar and Steven (2013). TAM on its own would be limited in predicting attitude and behavioural intention to adopt mobile banking by the rural unbanked.

3.4.7 Limitations of the Theory

The technology acceptance model is heavily criticised for its failure to take account of the impact of perceived cost and perceived value as predictors of attitude, behavioural intention or use (Raleting and Nel, 2011:214). This is because the theory was developed in an organisational context whereby the individual user did not bear the cost of using the technology, unlike in a consumer context where the individual suffers the cost of using technology (Lule *et al*., 2013:33). In a bid to cater for this, the current study considers the influence of both perceived cost and price-quality ratio in order to add more value to the framework, because these variables are more likely to influence m-banking adoption by the low-income earners as they may resist the financial services.

From the marketing point of view, TAM focuses only on product related characteristics, the perceived usefulness and perceived ease of use (Mattila, 2002) yet consumers have the ability to accept or resist the mobile banking service basing on perceived cost, distribution channel and promotion of the service. This study improves this limitation by incorporating the marketing mix variables to influence attitude and behavioural intention to adopt mobile banking.

Although Venkatesh *et al.* (2012:8) have tried to extent the Unified Theory of Acceptance and Use of Technology (UTAUT) using the price value, the theory is deficient in that more variables under price, such as price transparency, perceived cost, and price reliability need to be accorded their contribution in the framework to improve the marketing orientation of the theory. This study dismisses the use of the UTAUT model although it is recent, based on the fact that the model considers social influence and facilitating conditions which are not important for this study. Another problem with the UTAUT model in relation to this study is that it does not have a construct which represents an overall estimation of the adoption of mobile banking, such as attitude (Alsheikh and Bojei, 2012:59). Venkatesh *et al*., (2003, 2012) do not consider or hypothesise that attitude has a distinct and direct effect on behavioural intention in the UTAUT model but this study does take this into account. The UTAUT model was engineered for actual users of technology but this study seeks to investigate the attitude and behaviour of non-users of mobile banking technology. The variables used to influence attitude and behavioural intention are purely marketing oriented, hence the need to borrow the product oriented nature of the TAM constructs.

Overall, a considerable number of researchers still have a strong interest in the use of the diffusion of innovation theories for the purposes of revision, modification and extension to account for the stupendous growth and change in technology and the environment (Kripanont, 2007:3) despite the theories' popularity and usefulness. Numerous researchers have raised questions about whether or not there are other determinants that can be used to predict attitude and behavioural intention to adopt new technology (Venkatesh *et al*., 2003; Bagozzi, 2007). The researcher has not found any theory that has tried to extend these technology acceptance theories or models using both information systems

and marketing constructs in Zimbabwe. Therefore inconsistencies among the key determinants and moderators in these theories compelled the researcher to formulate hypothesis based on literature to design a Mobile Banking Adoption Conceptual Model (MBACM).

3.5 THE CONCEPTUAL MODEL

Previous studies have used well-known theories of innovation diffusion and new product, but Puschel *et al*., (2010:390) observe and argue that there is no standard as yet on how these theories may be applied in mobile banking adoption. Most of the relative variety of studies on mobile banking have failed to take a marketing oriented route to provide a broader explanation and understanding of mobile banking phenomenon.

In line with Davis's (1989:335) suggestion that, regarding how perceived usefulness and perceived ease of use may be used to influence attitude and behavioural intention, there is need to consider other external variables that may influence attitude and behaviour towards adoption of technology. This study therefore tries to close this gap by considering marketing variables to help predict the attitude of the unbanked consumers towards mobile banking adoption. The idea behind this study is to integrate marketing oriented, information technology oriented and diffusion oriented variables into a theoretical framework which aids in improving the predictability of user acceptance. The key significance of the proposed theoretical framework for this study is that its consolidation of a considerable number of predictor variables aids in providing a fuller and better prediction of consumers' adoption attitude and behaviour towards mobile banking. The gaps that have been identified in the above critically evaluated theories have resulted in the formulation of the conceptual model. By extension of the McCarthy (1964), Fishbein and Ajzein (1975), Davis (1989), and Rogers (1995, 2003) theories, this study proposes a conceptual model basing on visited literature through the formulation of hypotheses. However, this proposed MBACM model is not intended to be universally acceptable, but should rather give new insights into this fairly new and unexamined territory of mobile banking in Zimbabwe.

3.5.1 Financial product related hypotheses: H1

Dass and Pal (2010:7) argue that perceived usefulness was found to have a positive effect on the demand and adoption of mobile financial services. In Ghana, Tobbin (2012:83) concluded that the rural unbanked found mobile banking useful. The results indicated that the participants were influenced to adopt mobile banking by its perceived usefulness. Earlier studies have revealed that there is a positive relationship between perceived usefulness and attitude and it has been found that perceived usefulness is the strongest predictor of a user's intention to use technology (Davis, 1989;

Venkatesh *et al*., 2003; Yang and Yoo, 2004). As rooted in TAM, this literature leads to the following hypothesis.

H1a: Perceived usefulness has a positive influence on attitude to adopt mobile banking by the rural unbanked.

A study conducted by Puschel *et al*., (2010:404) concluded that perceived ease of use had a strong influence on the attitude to adopt mobile banking in Brazil. In a similar study, Tobbin (2012:83) found that the ease of use of mobile banking services greatly influenced adoption among the rural unbanked population in Ghana. Studies by Davis (1989), Venkatesh and Davis (2000), Ma and Liu (2004), and Jeong and Yoon (2013) found that the perceived ease of use predicted the end-user's beliefs in technology acceptance. So based on these studies, the following hypothesis is proposed.

H1b: Perceived ease of use has a positive influence on attitude to adopt mobile banking by the rural unbanked.

The potential users who are permitted to experiment with an innovation will be comfortable with it and are likely to adopt it (Rogers, 2003:243). This means that new ideas can be tested before full implementation (Puschel, 2010:394). Khraim *et al.* (2011:103) concluded that trialability as an independent variable had a statistically significant relationship with the dependent variable mobile banking adoption. Rumanyika (2015:4) submitted that trialability involves a condition where people experiment with technology before full adoption through test drives, demonstrations, and simulations. People feel more confident if they are offered a chance to feel the product and are more likely to adopt it. The trying of new innovation minimises the risk of fear of the unknown and thus reduces potential resistance. Trialability forms the primary means by which attitudes towards goods and services are formed. Marketers often try to encourage consumers to attempt new products or services through offering coupons or trials by the consumers themselves (Parumasur and Roberts-Lombard, 2013:195). Trialability has a significant impact on behavioural intention to adopt mobile banking according to Chen (2013:425). However, a study by Kolodinski *et al.* (2004) indicated that there was no significant relationship between trialability and behavioural intention to adopt PC and phone banking. With this literary evidence, the researcher confidently set up the following hypothesis.

H1c: Service trialability has a positive influence on the attitude to adopt mobile banking by the rural unbanked.

In a study conducted by Liao and Cheung (2002), it was found that individual expectations regarding accuracy and security featured most as quality attributes in the perceived usefulness of Internet based e-retail banking. Ibrahim *et al*. (2006) cited in Safeena *et al.* (2011:229) indicated that accurate

electronic banking operations was seen as a significant factor to accept an online banking system. Using the same token, the research proposes the following hypothesis.

H1d: Accuracy of the mobile system has a positive influence on mobile banking adoption by the rural unbanked.

3.5.2 Price related hypotheses: H2

Poh and Mohayidin (2014:1811) found that price transparency was the most significant variable that influences customers' satisfaction towards airline price setting strategies. In their study, Matzler *et al.* (2006:226) confirmed that price transparency had an impact on price satisfaction although it was not very significant. Another study by Nazari and Jiroft (2014:34) indicates that high price transparency results in the reduced cost of customer search and evaluation effort and this causes a higher price satisfaction. With this in mind, the researcher proposes the following.

H2a: Price transparency has a positive influence on attitude to adopt mobile banking by the rural unbanked.

The study by Matzler *et al.* (2006:226) concluded that price-quality ratio was the strongest predictor of overall price satisfaction. In another study to assess the impact of price satisfaction on customer loyalty, Hortanami *et al.* (2013:49) found that price-quality ratio significantly influenced customer loyalty. Jiroft and Nazari (2013:36) concluded that price-quality ratio also had the strongest predictive power in overall price satisfaction in the banking industry in Iran. In the same vein, provision of quality mobile banking services to the rural unbanked is likely to unlock their attitude toward adoption and therefore the following hypothesis is suggested.

H2b: Price quality-ratio has a positive influence on attitude to adopt mobile banking by the rural unbanked.

Jeong and Yoon (2013:35) define perceived cost as the level to which a consumer believes he/she has the financial resources needed to use m-banking. An individual with high financial resources may have a more positive attitude to using m-banking than an individual with lower financial resources (Jeong and Yoon, 2013:35). Venkatesh *et al.*, (2012:8) assert that cost and pricing structure significantly influence the consumer's technological use. The low cost of SMS banking in China relative to Internet banking, led to the quick adoption of the innovation (Chan *et al.*, 2008). Financial costs have a great influence on the consumer's adoption intention (Luarn and Lin, 2005, Kuo and Yen, 2009, Yao and Zhong, 2011). Raleting and Nel (2011:218) concluded that perceived cost had the most significant negative influence on attitude to adopt mobile banking. Perceived cost is one of the

economic factors which is important in behavioural intention. Xinhui *et al*. (2015) found that perceived cost had a significant impact on behavioural intention to adopt mobile banking. Price affects the motivation of consumers to adopt or reject a mobile banking service and price perceptions are important for consumers who have never tried the service (Luarn and Lin, 2005; Yao and Zhong, 2011). Wessels and Drennan (2010) found a significant effect of perceived cost on consumer's attitude and intention towards the use of mobile banking. As this study focuses on the adoption of mobile banking by the rural unbanked who are mostly low income earners in a developing world and who mainly concentrate their needs on basics, they are likely to spend less on information technology and they are economically price sensitive.

In this regard, the researcher proposes the following hypothesis.

H2c: Perceived costs have a negative influence on attitude to adopt mobile banking by the rural unbanked.

Jirofti and Nazari (2014:34) and Poh and Mohayidin (2011:1808) argue that consumers are often of the belief that prices that are favourable should be constant without unexpected changes that incite surprises. They note that if the price changes are communicated to consumers promptly, then they will perceive the high reliability of the price offered for the services. "Customers will perceive high price reliability if prices do not change unexpectedly" (Poh and Mohayidin, 2011:1808 and Jirofti and Nazari (2014:34).

H2d: Price reliability has a positive influence on attitude to adopt mobile banking by the rural unbanked.

3.5.3 Digital place related hypotheses: H3

Arvidsson (2013:154) comments that "the importance of trust in a study of mobile payment service is natural given that the value of money and payments in themselves are based on trust". Tobbin (2012:84) found three levels of trust namely: trust of the unbanked in the offered technology, trust of the MNO, and trust of the agents. Trust in the above stakeholders may help the unbanked to adopt m-banking. Mas and Ng'weno (2012:2) found that the success of M-PESA was based on the trust built by customers on the reliability of the system, the agent networks and the mobile operator as they could secure their money without problems. Joubert and Belle (2013:13) found that trust had a strong correlation with behavioural intention to adopt m-commerce by consumers. Trust in mobile payment such as banks, network agents, and MNOs, was positively related to the intention to adopt the mobile payment system (Arvidsson, 2014:157). Innovation involves a great deal of risk and to mitigate such risks, consumers need to develop trust first (Madhuku, 2014; Luo *et al*, 2010). The absence of physical touch with mobile banking channels becomes critical for consumers not to trust mobile banking (Madhuku, 2014:65). Empirical evidence shows that distrust is a challenge to mobile banking

adoption (Hanafizadeh *et al*., 2014; Shaw, 2014; Shieh *et al*., 2013). Marketing literature indicates that trust influences the buyer's intention to purchase a product as perceived risk and uncertainty will have been reduced. Trust assists consumers to mitigate perceptions of risk and uncertainty in adoption of and use of technology (Chinomona, 2013:464). Financial services are quite complex and need a lot of trust for financial consumers to adopt them (Sharma, 2011:50). In the same vein, the following hypothesis is set.

H3a. Trust has a positive influence on attitude to adopt mobile banking by the rural unbanked.

Shin (2010) cited in Ozer *et al*. (2013:431) posits that when consumers experience a great deal of delay in response, disconnections, lack of access and poor security, they are likely to resist the use of mobile services. Customers see and feel the value of a payment system if more people are connected to and are actively using it (Mas and Ng'weno, 2012:2). The more people are in connection, the more value they drive from the service and the better they are prepared to adopt it (GSM Association, 2009). In the same vein, the researcher sets the following hypothesis.

H3b: Network coverage has a positive influence on attitude to adopt mobile banking by the rural unbanked.

The expectations of customers from mobile banking are really increasing as of recent. If MNOs and banks fail to meet performance and dependability expectations, then customers are likely to lose their confidence. Banks should ensure that the mobile banking systems are always functioning in 24/7 fashion. A study by Cheng *et al*. (2013:19) indicates that the reliability of mobile banking has had a significant influence on customer satisfaction. Therefore the distribution channel needs to be consistent if customers are to adopt mobile banking. Given this, the following hypothesis is made.

H3c: Distribution dependability has a positive influence on attitude to adopt mobile banking by the rural unbanked.

Morganosky (1986:37) defines service convenience as "the ability to accomplish a task in the shortest amount of time with the least expenditure of human energy".Service convenience influences the usage level and satisfaction by consumers (Asfour and Haddad, 2014:153). A strong relationship was discovered between ease of navigation (or convenience) and customers' e-satisfaction (Asfour and Haddad, 2014:164). He and Song (2009) cited in Chang *et al*. (2010:1423) assert that customer satisfaction might have a significant influence on consumers' intentions to repurchase. Chang *et al*. (2010:1433) confirm that service convenience had a positive influence on customer satisfaction. El-Qirem (2013:232) found a positive relationship between service convenience, and attitude and behavioural intention to use mobile banking. Based on this, the following hypothesis is made.

H3d: Service convenience has a positive influence on attitude to adopt mobile banking by the rural unbanked.

3.5.4 Promotion related hypotheses: H4

Advertisers are quite interested in attitudinal studies because they know that attitude has a strong influence on motivation. They know that attitudes are learned and that they can be established and changed, reinforced or replaced. Moriarty *et al*. (2012:173) contend that attitudes are important to advertisers as they influence the consumer's ability to evaluate products or services, institutions and retail stores.

Dineshwar and Steven (2013:12) found that 94.7% of the respondents in Mauritius were aware of the m-banking service. They added that informative advertising was able to strongly create this awareness there. A study by Mas and Ng'weno (2012:6) revealed that the launch of M-PESA in Kenya was heavily successful because of a significant advertising campaign in the traditional media. Daud *et al*. (2011:260) found that awareness had a significant influence on intention to adopt mobile banking in Malaysia. Advertising has a persuasive effect on the attitude and motivation to adopt and use a product or a retail store (Moriarty *et al*., 2012:144). In the same vein, the researcher sets the following hypothesis.

H4a: Advertising has a positive influence on attitude to adopt mobile banking by the rural unbanked.

Mattila (2002) posits that to tangibalise the service mobile banking personnel should offer information about banking services through personal selling and advertising. Khan (2012:1) agrees that personal selling might be applied if the offer is complicated and of high value. He adds that personal selling brings the buying decision process to a more satisfactory conclusion. Sales people should develop positive comments to their target markets thus they must express a favourable attitude so that their products are bought (Parumasur and Roberts-Lombard, 2013:190). Research has indicated that just as consumers develop an attitude towards salespeople and their companies, so do they for their products or services. Parumasur and Roberts-Lombard (2013:191) affirm that customers who have developed a negative attitude about salespeople will possibly resist the selling efforts of the sales people. Khan (2012:4) found a significant relationship between personal selling and consumer behaviour. The behaviour of sales people can have a significant impact on consumer satisfaction (Grewal and Sharma, 2013:13). Given these views, the following hypothesis is set.

H4b: Personal selling has a positive influence on attitude to adopt mobile banking by the rural unbanked.

Financial education has the ability to quicken the uptake of financial services and improve financial decision making and reduces the susceptibility to financial risks and exposure to unscrupulous

behaviours of financial services providers (Centre for Financial Literacy, 2013). PISA (2012:141) shows empirical evidence that there is a causal link between financial education and outcomes, and that an improved level of financial education leads to a positive behavioural change. Evidence shows that financially educated consumers make more informed decisions and are more demanding of the quality of financial services (PISA, 2012:141). There is research testimony that attitudes toward credit card usage by students were associated with financial behaviours (Borden *et al*., 2008:25). People who endorsed the use of credit cards for purchases were likely to use credit cards (Danes and Hino, 1990). Students who held cards had the possibility of holding favourable attitudes towards usage. Borden *et al*. (2008:34) found that students without financial knowledge were likely to avoid using credit cards and they concluded from their research that there was no significant relationship between financial knowledge, attitude, and behavioural intention. The study by Prabhu and Pawar (2014:25) concluded that employees demonstrated a positive attitude towards financial planning and the inclination to save. Kolodinsky *et al*. (2004:243) say that e-banking requires, "perhaps the most consumer involvement as it requires the consumer to maintain and regularly interact with additional technology (a computer and an internet connection)". Without suitable training and financial education, mobile banking remains the sphere reserved for "financially literate, well educated, high-income customers" (Servon and Kaestner, 2008:3001). In other words, reduced financial training and financial literacy are barriers to achieving effective mobile banking adoption. The more information consumers possess about a product or service, the more likely they are to form positive or negative attitudes about them (Parumasur and Roberts-Lombard, 2013:192). Given this literature, the following hypothesis is suggested.

H4c: Financial education has a positive influence on attitude to adopt mobile banking by the rural unbanked.

3.5.5 Attitude related hypothesis: H5

Puschel *et al*. (2010:402) in their study found that attitude resulted in the largest influence toward mobile banking adoption by the non-user group**.** Aboelmaged and Gebba (2013:43) show strong empirical evidence for a significant positive influence between attitude and intention to adopt mobile banking. Earlier studies by Moon and Kim (2001), George (2002) and Gribbins (2003) support that there is a positive relationship between attitude and behavioural intention to adopt mobile banking. Attitude, when measured accurately, is able to predict behaviour, although the correlation is sometimes weaker than expected (East *et al*., 2008:123-124). This is further supported by Solomon (2014:293) who argues that a human being's knowledge is not a good predictor of behavioural intention, as a considerable number of researches have subsequently obtained a low correlation between a human being's attitude and behaviour. There is literary evidence on behaviour that attitudes are the main determinant of behaviour (Lochton, 2012:1). In a different view, Ajzen and Fishbein

(1977) vehemently argue that if no significant relationship existed between attitude and behavioural intention, it would be due to researchers having measured the wrong items for attitude. Attitude is therefore a strong proxy of purchasing intention. There is a need to for compatibility between the measures of attitude and behaviour. Consequently, the following hypothesis is suggested.

H5: Attitude has a positive influence on behavioural intention to adopt mobile banking by the rural unbanked.

Mobile Banking Adoption Conceptual Model (MBACM)
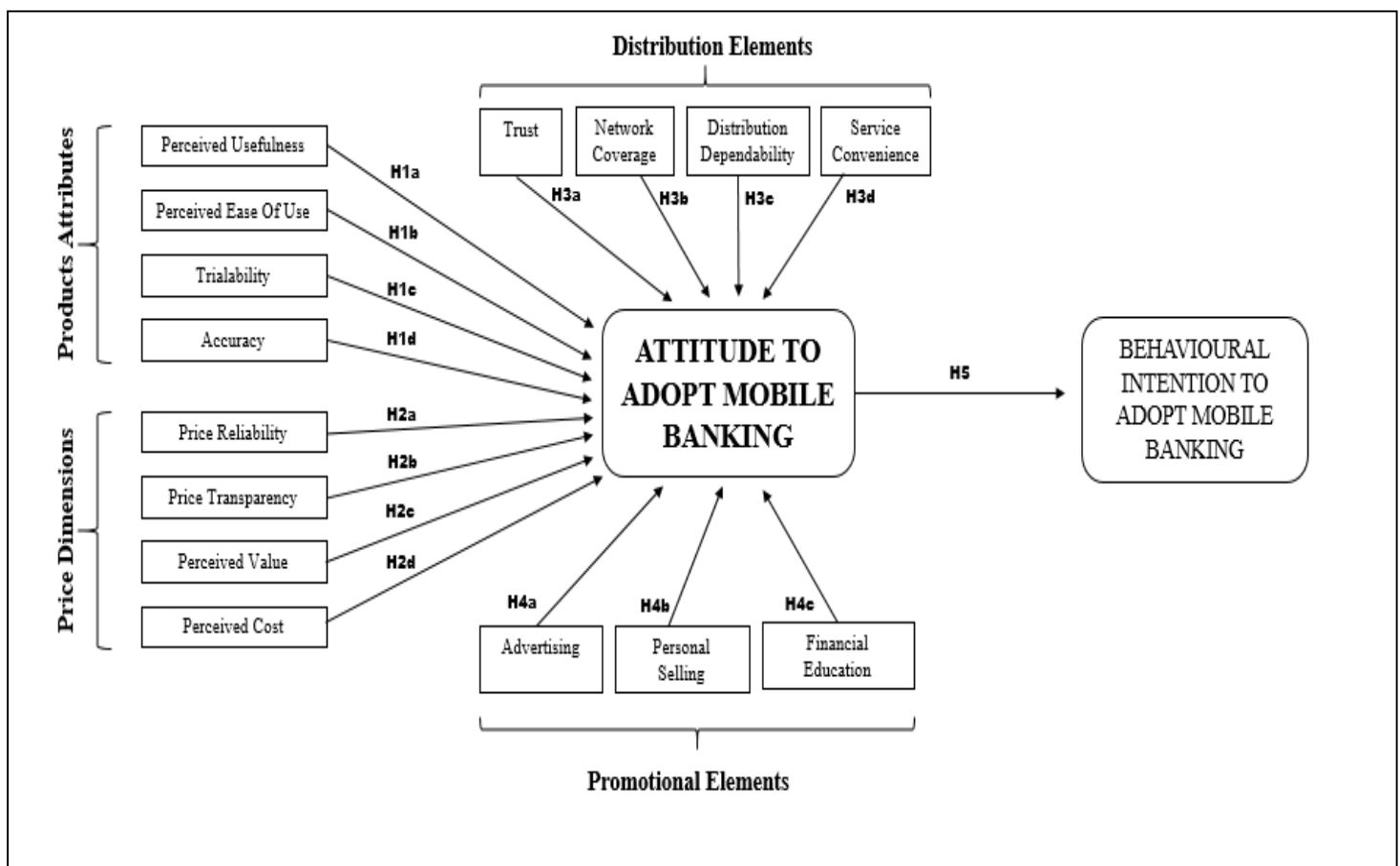
Figure 3.3. Mobile Banking Adoption Conceptual model (MBACM). Source: Developed by the researcher.

3.6 THEORETICAL CONTRIBUTION OF THE MODEL (MBACM)

The major theoretical contribution of MBACM is to modify the diffusion of innovation and technology acceptance theories for consumer acceptance. The modification of the two theories extends the generalisability of these theories from organisational context to consumer behaviour context (Venkatesh *et al*., 2012:29). In a bid to take a marketing perspective on technology

acceptance, the marketing mix elements have been used as drivers of attitude and behaviour in the conceptual framework. Bagozzi (2007) has called for the intervention of some mechanisms that would assist in predicting behaviour. Therefore the extension of the two theories using the marketing mix is critical to making the predictive validity of diffusion of innovation and of the technology acceptance model in a consumer behaviour context.

Proponents of technology acceptance theories and models have discovered the need to extend the theoretical space (Davis, 1989; Bagozzi, 2007; Venkatesh *et al*, 2012). Venkatesh *et al.* (2012:3) note with serious concern that there is a need to develop theories that "focus on specific context and identify relevant predictors and mechanisms are considered to be vital in predicting a rich understanding of a focal phenomenon and to meaningfully extend theories".

From the review of more than 100 articles, the researcher found that the articles that cited original diffusion of innovation and technology acceptance models only, adopted, applied and even extended them using various technical constructs, but never attempted to review them from the marketing mix perspective.

3.7 CHAPTER SUMMARY

Although the above discussed theories and models in this chapter are suggestive of general determinants to aid in predicting behavioural intention of the unbanked towards mobile banking, studies that attempt to investigate the adoption of mobile banking by the rural unbanked are significantly missing in Zimbabwe. The noted theories have their own strengths and weaknesses in trying to predetermine the attitude and behavioural intention to adopt mobile banking in Zimbabwe. All the discourse on traditional mix elements may be concluded to make the 4Ps compatible with the digital markets provided the concerned marketing authorities consent to broaden the definitions of product, price, place and promotion to accommodate the new emerging characteristics of the digital economy. The next chapter covers the mobile banking developments in Zimbabwe.

CHAPTER 4

MOBILE BANKING IN ZIMBABWE

4.1 INTRODUCTION

This chapter discusses the general historical development in mobile banking in Zimbabwe. In the past decade, Zimbabweans have undergone serious challenges such as hyperinflation, eroded consumer confidence and trust, and reduced investment in new payment systems. Only in 2009, when the government authorised the use of multicurrency, did the economy slowly came back on track and people started to build confidence and trust in the banking industry, for they thought financial salvation had come again. The expansion of information technology led to some local companies to engage in mobile money transfers, payments and even mobile banking services. This chapter focuses on the mobile banking ecosystem, the challenges the banking system has been facing, the economic contribution of mobile banking, and the marketing barriers affecting the system in Zimbabwe. These marketing barriers are essential as the major aim of this study is to address the influence of the marketing mix elements on mobile banking adoption by the rural unbanked consumers in Masvingo province.

4.2 THE MOBILE NETWORK OPERATING INDUSTRY

"Governments need to do less in those areas where markets work" (World Bank, 1991:1). In line with this statement, the Zimbabwean government in the early 1990s embraced public enterprise sector reforms as per the recommendations by the International Monetary Fund and World Bank policy prescriptions (Zhou, 2001:231). These reforms saw the deregulation of the post and telecommunication industry in 1998. The industry was formerly dominated by a sole parastatal Zimbabwe Post and Telecommunication Corporation (ZPTC). This company provided monopoly power in fixed network and postal systems but there was a wide disparity between urban and rural areas due to the national digital divide (Mlambo, 2001:1).

Deregulation resulted in the birth of three mobile network operators entering the industry. The Telecommunications Act brought about competition and provided for a regulatory body. It also resulted in the separation of broadcasting and telecommunications resulting in the formation of the Post and Telecommunication Regulation Authority of Zimbabwe (POTRZ) and the Broadcasting Authority in Zimbabwe (BAZ) in September 2000. Much concern was on the unbundling of Zimbabwe Post and Telecommunication Corporation (ZPTC) into TelOne offering fixed network services, Net*One providing mobile network services, and ZimPost for posts and courier services (Mlambo, 2001:7).

Since the 1998,the deregulation of the telecommunication industry saw the formation of three mobile network operators, namely Econet, Telecel, and the government owned Net*One. The deregulation was meant to allow private companies, other than ZPTC, to manufacture and assemble handsets and install and repair telephone receivers (Kooper *et al*., 1997). While a lot of interest has been developed in this area, there are a lot of regulatory sticking issues in terms of licensing and the operation of cellular phones.

Table 4.1 Number of subscribers per operator

Operator	Number of Subscriptions
Econet	8,522,941
Telecel	2,544,339
NetOne	2,451,607
TelOne (Fixed)	307,202
Total voice subscriptions	**13,826,089**
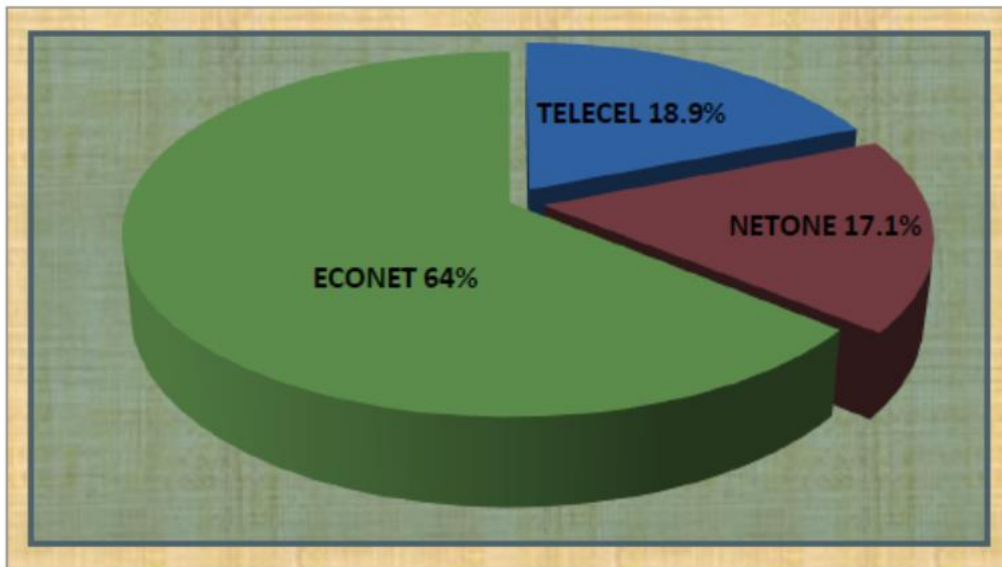
Fig 4.1 Market share of the mobile network operatorsin 2013. Source: Adapted from POTRAZ: Fourth quarter sector performance (2013:6).

Fig 4.1 reveals that Econet had the largest market share at 64% followed by Telecel at 18.9% and lastly NetOne at 17.9%. The penetration rate of mobile phones in Zimbabwe reached a high of 103% (POTRAZ, 2013) in 2013, thereby surpassing the size of population and this infers that almost everyone had a cell phone. However, a close examination of this event might mean that some Zimbabweans could be holding two or more lines as a considerable number in the rural areas could not afford a handset. Econet wireless dominates the mobile telecommunications industry with around

4,5 million active subscribers and NetOne and Telecel had each 3,2 million and 2,1 million respectively by end of 2014 (POTRAZ, 2014).

Although Information and Communication Technology policy was adopted in 2005 (Chiumbu *et al*., 2009), the mobile network operations industry has been rocked with challenges in the form of network congestion, inadequate communication infrastructure, lack of finance, limited management policy capacity, inadequate bandwidth and low tariffs as stipulated by POTRAZ.

These challenges have stifled expansion of the industry for most of the network providers with a negative influence on the introduction of new services like Third Generation (3G) technology (Chiumbu *et al.*, 2009).

4.3 MOBILE BANKING ECOSYSTEM

Moore (1996:26) defines a business ecosystem as:

"An economic community supported by a foundation of interacting organisations and individuals-the organisms of the business world. This economic community produces goods and services of value to customers, who are themselves members of the ecosystem".

Therefore a mobile money ecosystem is a network of individuals and organisations that interact together in mobile money community with a common purpose. On the next page there is a simplified structure on a mobile money ecosystem as designed by the International Finance Cooperation.
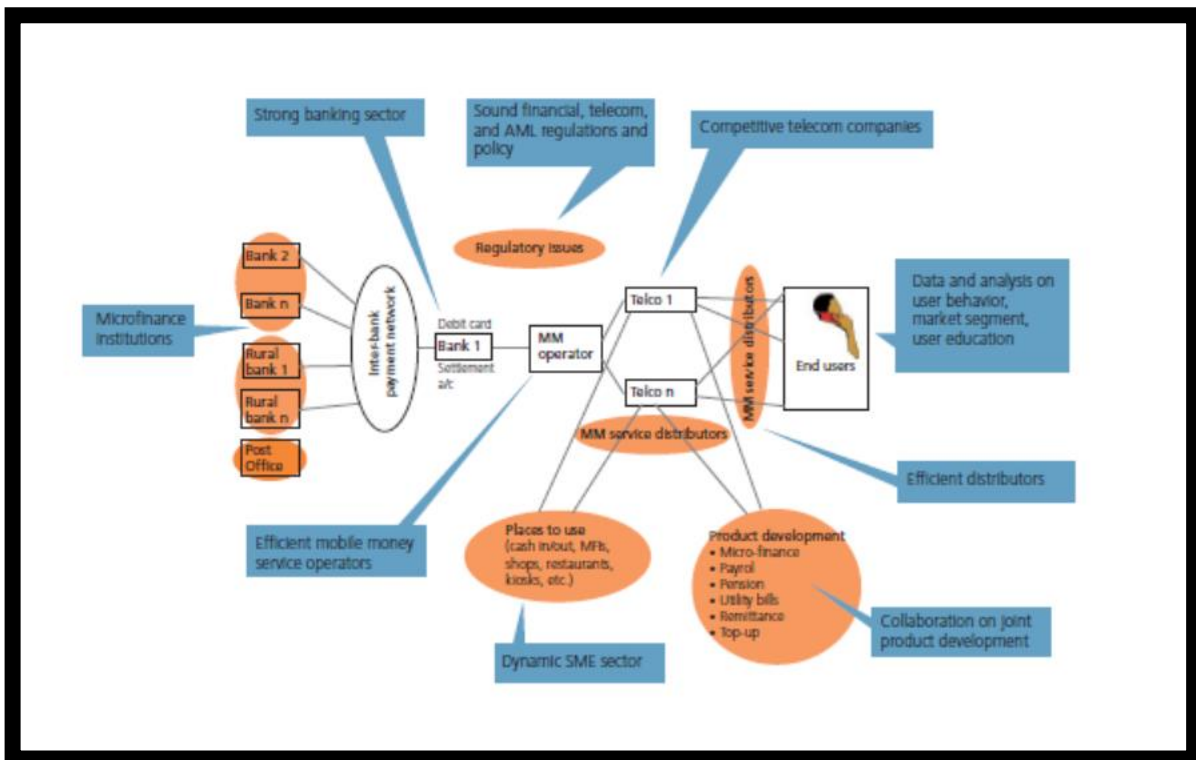
Fig 4.2. Mobile money ecosystem. Source: Jenkins (2008:10). International Finance Cooperation

In mobile banking ecosystems, the three rules are partnership, partnership, partnership which are created by a web of collaboration covering varied networks of relationships and interactions (Napoleon, 2008). A number of stakeholders are needed to bring new infrastructure to enable the smooth running of mobile banking ecosystem (Kufandirimbwa *et al*., 2013:98). These include MNOs, banks, regulatory institutions, agency networks, equipment manufacturers and platform providers, and mobile money users.

4.3.1 Mobile Network Operators (MNOs)

These provide the needed mobile infrastructure and build strong and extensive retail outlets and agency networks. The MNOs have a massive customer base including the poor, low income and other unbanked market segments. Moreover, MNOs ensure that there are proper communication services in the telecommunication industry and ensure that there is compliance with POTRAZ regulations (Jenkins, 2008:10, Kufandirimbwa *et al*, 2013:98). The MNOs spin the thread that will knit together all the interaction and web connectivity (Jenkins, 2008:10). Other roles of the MNOs are to provide e-money, exercise leadership roles in drawing up the mobile banking ecosystems and give advice to other stakeholders on mobile money strategic actions.

4.3.2 Banks

Jenkins (2008:10) reports that banks are financial institutions that possess "a bank license and have the power to facilitate exchange, clearing and settlement". Banks provide banking services through mobile devices as well as holding float cash in a client's account. However, they serve a narrow customer base as compared to the one served by MNOs as they have limited geographical outreach. Banks ensure that they comply with the regulations as set by the RBZ. Moreover, these banks have the ability to contract out services to third parties although they remain liable for any risk associated with such (Jenkins, 2008, Dermish *et al*., 2012). Zimbabwe has such banks as Steward, CBZ, FBC, ZB bank, Tetrad, Standard, Barclays, Stanbic and Agribank which are all linked to the three MNOs to provide mobile banking in exclusivity (with exclusive rights).

4.3.3 Regulatory Institutions

Regulatory institutions provide the enabling environment and ensure that the playing field is convenient and open in terms of competition, as well as permitting a stable financial system (Jenkins, 2008:10). They have the authority to enforce regulation as well as monitoring and controlling compliance (Kufandirimbwa *et al*., 2013:99). Regulators promote financial inclusion initiatives and offer a broad range of payment systems, as well as ensuring regional and national economic development. The Reserve Bank of Zimbabwe (RBZ) oversees the financial sector through its National Payments Systems Department (NPSD) while the Postal and Telecommunications Regulatory Authority of Zimbabwe (POTRAZ) regulates the communication systems in the country. Regulators have a paramount concern and regulatory effect to play as they should maintain, if not restoring public confidence in the financial services and markets. The public build up confidence and trust if the payment system in the financial environment is stable.

Recently, POTRAZ considered revamping its obsolete licensing system as it was seen to be stifling growth in the telecommunication industry because technology had outstripped the system, so there was a need to craft a technology and service neutral framework (Sibanda, 2015:B4). Admittedly, POTRAZ has seen that in various nations and financial institutions new policies, regulations and frameworks need be altered to keep pace with the ever converging telecommunications devices and sector.

In the same manner, the National Payment Systems Department has been encouraged to develop new frameworks and systems to encourage flexibility and to be in line with international best practice.

4.3.4 Agency Networks

Agent networks provide the physical contact with the users of the service and they should build consumer trust to ensure quick adoption of mobile banking. Jenkins (2008:8) notes that the agent network has better knowledge about consumer attitude, behavioural intention and actual usage which all increase traffic and potential sales. Agents perform the cash-in and cash-out functions and they handle account opening procedures (Jenkins, 2008:9). MNOs have established a network of over 24000 agents nationwide in order to ensure maximum reach compared to a total of 20 banks operating in Zimbabwe with a restricted network of branches slightly above 300 (Mataruka, 2015:4). Partnerships have been established between Telecel and a number of banks such as CBZ and FBC. Econet Wireless does not have partnerships currently since it owns Steward bank. NetOne uses Zimpost to expand its network coverage for OneWallet product and service. However, in Zimbabwe, the network agents face liquidity crunch problems, lack basic business skills and lack customer trust. There had also been a problem of 'exclusivity agreements' in which some MNOs barred their agent networks from working with and participating in the marketing activities of competitors. This was quashed by the Reserve Bank of Zimbabwe in February 2014 through a directive meant to encourage competition in the industry. The mobile money agents have greatly helped Zimbabweans, whose country is under liquidity and fluidity challenges, through facilitating transactions in the financial sector without the need for bank accounts and bank cheques.

4.3.5 Equipment Manufacturers and Platform Providers

This group is composed of mobile phone producers, network equipment vendors, and application providers (Kufandirimbwa *et al.,* 20013:99). These stakeholders are suppliers and vendors to the telecommunication industry. The telecommunication industry is a highly capital intensive industry and these high costs act as barrier to enter this type of industry. However, small companies may engage in supplying the telecommunication companies (telcos) with spares and providing maintenance services, as this activity constitutes 77% of the production costs for the telecommunication companies (Karombo, 2013).

4.3.6 Mobile Money Users

These form the target market segment and they are usually subscribers to MNOs. The users have been saved from the risk of carrying huge amounts of cash (Jenkins, 2008), have now increased access and affordability of payment (Dermish *et al*, 2012; Tobbin, 2012) and benefited from convenient remote payments and remittances (Jenkins, 2008, Kufandirimbwa *et al*., 2013). However, the users suffer from a lack of awareness of mobile banking services due to a lack of awareness as a result of restricted promotional activities (Mbengo and Phiri, 2015:201), lack of financial literacy, and the influence of social values not compatible with mobile banking (Rogers, 2003:207).

4.4 MOBILE BANKING: INTEGRATION OF MNOS AND BANKS

The proliferation of mobile phones has provided a platform to reach the banked, the underbanked, and the unbanked in Zimbabwe. Innovative products such as Nettcash, Telecash, Ecocash and Textacash as well as mobile banking, emerged as a result of ever-changing technology and also a lack of confidence and trust in conventional banking, coupled with the need to address the financial inclusion discourse (FinScope Survey, 2012). What undermined confidence and trust in the formal banking industry were high bank charges coupled with zero interest being effected on positive balances following the dollarisation in 2009 (Nhavira *et al*., 2009). Kufandirimbwa *et al*. (2013:93) comment that the emergence of mobile money resulted in cut-throat competition, as MNOs were racing to get a share of the mobile financial services cake.

Currently, Econet is using Comviva's mobiquity as software for a service platform to ensure convenient delivery of financial services. NetOne uses Gemalto as its platform. These platforms are hosted as Software as a Service (SAAS) model. It therefore means that the local MNOs are outsourcing these platforms. Mobiquity has been adopted by more than 59 banks and leading MNOs worldwide and it provides end-users with a mobile prepaid wallet for the banked, the underbanked and the unbanked market segments. The following is a list of mobile banking products in Zimbabwe.

Table 4.2 Mobile Banking Products Introduced by Banks

	Institution	Mobile Network Operator	Mobile Banking Platform / Brand Name
1.	FBC Bank	Net One/ Telecel	ZIPIT */ One Wallet
2.	Kingdom	Telecel	Kineto Mobile/Kingdom Cellcard
3.	POSB	Net One/ Telecel	ZIPIT
4.	CABS	Net One/ Telecel	ZIPIT / Textacash
5.	Metropolitan	Net One/ Telecel	ZIPIT, Metbank mobile
6.	FBC Building Society	Net One/ Telecel	ZIPIT
7.	Interfin	Net One/ Telecel	ZIPIT
8.	Barclays		Inbuilt Plaform
9.	TN Bank	Econet	Ecocash
10.	Tetrad	Telecel	e-Mali
11.	CBZ	All	E-Tranzact /CBZ mobile/ ZIPIT
12.	Stanchart	Net One/ Telecel	ZIPIT
13.	Trust	All	E-Tranzact/Bank at Ease
14.	ZB		E-Solutions
15.	ZABG		E-Solutions

ZIPIT-ZIMSWITCH based platform. Currently eight banks are on the platform with a target of including all banks which are members of Zimswitch. Source: Reserve Bank of Zimbabwe (January 2012:43). Monetary Policy Statement.

Table 4.3 Simplified table for mobile banking financial products

Institution	Mobile financial product
Barclays Bank	Hello money
Econet Wireless	Ecocash
Kingdom Bank (defunct)	Cellcard
Tetrad	EMali
CABS	Textacash
Interfin Bank	Cybercash
CBZ Bank	SMS banking
NetOne	OneWallet
Telcel	Skwama
FBC	Mobile moola

The above table shows some of the financial products developed by either a bank or a MNO.

4.4.1 The Bank-led Financial Products

Bank-led financial products arose as a result of banks taking the lead in payment service innovation. CABS and the defunct Kingdom Bank took the lead in implementing and integrating novel technologies to improve their services via mobile devices (Dermish *et al*., 2012:18, Kufandirimbwa *et al*., 2013:93). Kingdom developed its financial product named Cell card and Dermish *et al.* (2012:18) posit that this bank took the product as an additive channel. Unfortunately the service was restricted to the then current Kingdom clients. Its failure to link its mobile services to the ZIPIT platform meant that the Kingdom clients were excluded from sending and receiving money from other financial institutions. Barclays developed its Hello money facility to which only its current customer base has access, thus again excluding non-members. Hello money resides on EcoCash and Telecel platforms but some observers comment that this service is a direct competitor to EcoCash (Mwenje, 2015).

A mobile payment product Textacash was launched by CABS bank and was earmarked for servicing agricultural clients who had accounts with the bank (Dermish *et al*., 2012:18). The Textacash financial product is unique in that as opposed to Kingdom card in that it is connected to the ZIPIT platform. CABS bank is in the lead in advocating for interconnectivity in the industry by promoting infrastructure sharing. However, the Barclays and Steward Banks and the defunct Kingdom bank retained their exclusive access, so do not believe in the infrastructure sharing initiative.

4.4.2 Mobile Network Operator-led Financial Products

Econet Wireless created its EcoCash brand (by far the most widely promoted product) in order to send and receive money and it partnered with Steward bank, which it wholly owns, in order to meet the prudential regulatory requirements of the Reserve Bank of Zimbabwe. EcoCash has had a resounding success due largely to the network and aggressive marketing efforts of Econet Wireless. Dermish *et al*. (2012:21) submit that EcoCash leveraged the Econet Wireless brand name for increased awareness purposes. The same happened to M-Pesa in Kenya as this financial product leveraged on the fame of Vocacom's brand success (Mas and Ng'weno, 2010). However, it is unfortunate that the EcoCash platform is not connected to ZimSwitch, and hence cannot be connected to other mobile banking services over the ZIPIT.

NetOne designed its OneWallet in mutual partnership with FBC bank (Dermish *et al*., 2012:20). Telecel is unique compared to other MNOs in that it opened up its platform to all needy financial institutions on ZimSwitch Instant Payment Interchange Technology (ZIPIT platform). This approach believes in infrastructure sharing for the whole industry to benefit. CBZ, POSB and CABS banks developed their mobile financial services that are distributed via the Telecel platform. Telecel's opening up of its network was meant to create cut-throat competition with the market leader EcoCash by lowering prices, offering reliable services and prominently advocating for the interconnectivity concept (Dermish *et al*., 2012:21). However, EcoCash is known for its expensive charges for sending and receiving money to both its subscribers and non-subscribers as compared to M-Pesa of Kenya (Mbengo and Phiri, 2015:200).

In view of the above, it must be noted that these new mobile financial products were initially targeted at the existing account holders to the total exclusion of the rural unbanked people who are a mass of silent customers with potential economic participation.

4.5 LACK OF LEGAL FRAMEWORK

Guvamatanga (2013) lamented vehemently that there is no legal framework for mobile banking in Zimbabwe and other parts of the world. In addition, Bara (2013) noted that specific regulations that govern the conducting of mobile banking in not yet available. Countries such as the Philippines, Namibia, Mexico, Indonesia, Pakistan and Kenya are struggling to put into place working mobile banking regulations (Klein and Mayer, 2011:7). By the time of writing this thesis, the Ministry of Information Communication Technology, Postal and Courier Services (MICTPCS) was working on the modalities of cyber law framework in order to develop an enabling working environment in the banking and telecommunications industry.

4.5.1 Regulatory Institutions in Zimbabwe and Their Roles

The Reserve Bank of Zimbabwe (RBZ) is the central bank of Zimbabwe which is the bank of last resort. It is an organisation which primarily accounts for the oversight of and giving guidance to retail payment developments (Dermish *et al*., 2012:22). It consists of the National Payment Systems Department (NPSD) and the Banking Licensing, Supervision and Surveillance Division (BLSSD). For the purposes of this study, the NPSD is of major concern. The NPSD oversees the progress of the payment infrastructure and technology, and crafts rule and regulations regarding payment systems. Dermish *et al.* (2012:22) submit that the NPSD designs the ecosystem for retail payments. Due to the complexity of the modern payment systems brought about by mobile money and mobile banking, the NPSD has been challenged to provide a policy framework to regulate mobile banking in Zimbabwe. In a bid to address the challenges, the RBZ through the NPSD bi-annually publishes Monetary Policy Statements on its website and in newspapers, and coordinates with the BLSSD and legal experts to address the legal gaps in mobile banking (Dermish *et al.,* 2012:23). However, the Ministry of Finance collaborates with the RBZ and all stakeholders in the banking industry to ensure the harmonious running of the same. Another important stakeholder is the Bankers Association of Zimbabwe which is comprised of the Interbank Committee, Treasurers and Plastic Card and Electronic Payments, who work together with RBZ to strategically run the banking industry.

4.5.2 Zimbabwe Payment Regulations (Systems Act 2001)

The regulations and laws of payment systems are contained in the National Payment System Act (2001), Chapter 22:24. This Act specifically addresses the settlement obligations and clearing payments instructions, but it does not have regulations regarding electronic and mobile retail payment mechanism (Dermish *et al*., 2012:24; Bara, 2013:348). However, in a bid to foster financial inclusion, the RBZ relaxed its regulations on Know Your Customer (KYC) in order to include the once excluded and marginalised people (Bara, 2013:348). The RBZ encourages banks to apply when they need to offer new products and those are scrutinised to check the compliance of such products with the National Payment Systems, to check their security features and the potential risks of such products. It is important to note that the RBZ does not directly monitor the MNOs but only banks that partner with them.

All players involved in money transmission services should possess a license. However, Dermish *et al*. (2012:24) lament that "the NPS Act does not specify any rules around outsourcing services by banks to third party providers (such as agents or MNOs) to facilitate the respective components of retail payment service provision outside of bank branches". In view of this activity, banks remain

liable for any risks that may prevail due to the use of these third parties. It is significant that banks manage their risks effectively and ensure that high quality service levels are adhered to.

The hyperinflation era posed a lot of problems and confusion in trying to regularise the existing legal framework. Despite the Monetary Policy Statement (MPS), the National Payment System Department engages the market to seek consultation on the best way to produce a policy and regulatory guidance, but there remain some legal gaps.

4.5.3 Key Regulatory Gaps

4.5.3.1 No legal framework for mobile banking

There is no legal framework permitting the delivery of electronic financial services. The NPSD specifically targets prudentially legitimate banks, (that have the capital and internal controls on risk associated with stored valued instruments (Dermish *et al*., 2012:26), the store value, e-money and mobile banking are novel means without regulatory direction. Agenyi (2013:23) notes that most governments have conservative and vague regulations as they are negatively impacted by rapid advances in technological development, while the setting of laws is slow due to bureaucracy. Mobile banking should be subjected to the laws governing traditional banking if it is to be a success.

4.5.3.2 No specific rules on development and management of agent networks for mobile banking

Kshetri and Acharya (2012:3) posit that developing economies are characterised by poor infrastructure, immature standards, primitive mobile phones, congested networks and legacy systems which hinder the distribution of digitalised financial products. Regarding the management of network agents, the law regarding third parties' contractual agreements shows that risks ahead of that consent remain in the hands of banks engaging the MNOs. All the digital financial products in Zimbabwe have engaged agents to create and run their value chains effectively (Dermish *et al*., 2012:26). The recent mobile banking guidelines indicate that agents have exclusive rights to use or serve clients belonging to rivals in order to promote interoperability of the mobile banking service.

4.5.3.3 Reduced KYC rules rely on a third party to verify identification

The financial inclusion objective has led to the relaxation of regulations when customers open accounts. The regulatory framework has provided a flexibility opportunity to foster account opening by customers (Dermish *et al*., 2012:26). The risk of accounts opened through the MNOs' facility can be reduced by limiting the amount of funds transferrable from one account to the other.

4.5.3.4 Non-bank participation in NPS may encourage innovation

The current legal framework places a heavy load on banks alone to participate in the National Payments System thereby stifling innovation and growth in the banking industry. There are virtually no incentives for the heavily loaded banks for their participation in the industry to ensure efficient and effective functioning of the national payment system in the retail market (Bara, 2013; Dermish *et al.*, 2012). Another flaw of the current regulatory framework is that, although banks can get into contractual agreements with third parties, they do not share the risks involved. However, to close these gaps there is need to include non-bank participants in the system for new and innovative ideas may be exchanged to bring growth and longevity to the mobile banking industry.

4.5.3.5 National Payment Systems Act does not address electronic services

The current National Payment System Act, Chapter 24:23, is restricted to governing the netting and settlement procedures for interbank transfers and does not cater for emerging technological and complicated retail payments mechanisms via mobile devices. Dermish *et al.* (2012) and RBZ (2011) are concerned that the National Payments Systems Department should design guidelines that cover cyber issues like e-signatures and PIN numbers to ensure the reduction in risks such as fraud or loss of funds due to malwares. Problems and challenges being presented by the present framework are being addressed using *ad hoc* meetings as the regulator is struggling to craft and provide a neutral framework given the rapid changes in technology and market due to fast changes in consumer tastes, preferences and expectations.

4.6 NETWORK INFRASTRUCTURE SHARING

The Telecommunications Operators Association of Zimbabwe (TOAZ) has been struggling to convince its members to share network infrastructure although the players have been sharing, partially because the current law does not permit sharing active infrastructure. Econet Wireless has long been resisting and has felt it unfair to share infrastructure having spent more than a billion dollars to erect base stations in the country having been the pioneer. These funds were raised from such channels as the Zimbabwe Stock Exchange (ZSE) and the London Stock Exchange (LSE). Currently Econet holds 80% of the infrastructure (Newsday, 2015). However, it is interesting to note that infrastructure sharing involves parties who invest in different geographical areas and the sharing should be done equitably and reciprocally to avoid duplication of infrastructural resources. Active infrastructure sharing is a situation whereby telcos share non-electronic infrastructure such as cell sites, whereas the active approach entails sharing the electronic resources, for example the core network (Nhundu, 2015:9).

In Zimbabwe the telecommunications (telcos) industry is relatively low in innovation adoption, has poor service quality and high prices which makes the adoption of financial services such as mobile banking sluggish (Nhundu, 2015:9). Despite Econet's resistance in sharing network infrastructure, there are possible benefits stakeholders in the industry are bound to enjoy. Nhundu (2015:9) argues that network sharing can significantly promote investment and improve competition in the industry. Competition results in consumers getting quality at affordable prices, together with service variety. Entering the telcos industry is quite difficult, so opening up by sharing infrastructure may encourage new players to enter the industry to increase competition and for consumers to consequently gain in terms of increased innovation and technology, service quality, service choices and fair prices Price fairness is one of the price dimensions observed to significantly satisfy consumers and thus encourage them to adopt new technologies (Matzler *et al.*, 2006, Poh and Mohayidini, 2011:1808, Nazari *et al.*, 2014:133). Nhundu (2015:9) notes that infrastructure sharing significantly reduces capital expenditure, resulting in less costs that would be passed on as lower prices to the struggling consumers in Zimbabwe. Infrastructure sharing is a noble idea as it results in the liberalisation of the economy and fosters competition in Zimbabwe. However, a sound and clear regulation framework and initiatives to encourage industrial players to share their infrastructure in a manner that encourages investment, is required (Nhundu, 2015:10).

The government believed that infrastructure sharing would reduce operational costs by more than 60% (Mapakame, 2015:11). There is nothing exploitative about infrastructure sharing because firms that spent more on infrastructural development will recoup their capital by levying a fee on their services (Mapakame, 2015). However, there is a possibility of some telcos failing to pay for the services of the rented infrastructure. There is a risk of the dominant firms losing their market share to rivals if they open up, thus losing their competitive advantage. It is important to note duplication of resources make the final user suffer as the costs are passed on to them as high prices.

However, there are concerns about the compulsory infrastructure sharing at no cost, since Econet invested more than a billion dollars to fund the project during when the economy was suffering seriously from an economic quandary and a liquidity and fluidity cash crises. To be fair other players need to pay for the services they gain from Econet Wireless through a better pricing and sharing mechanism. Researchers feel that the solution to this infrastructure sharing dilemma can be best solved if the Zimbabwean government were to consider the Zambian model where Econet Wireless, Telecel and NetOne have to be forced to sell their infrastructure to an independent company that would lease back the services, an approach known as "sale and lease back" (Kabweza, 2015:11). However, this process ought to be done in a transparent and equitable manner if it is to be of mutual benefit to the affected players.

4.7 SECURITY ISSUES

Cybercrime has predominantly characterised the use of branchless banking. This is necessitated by a lack of cybercrime related legal frameworks and mechanisms (Kshetri and Acharya, 2012:4). Cybercriminals can imitate some websites that resemble those of fully functional companies and post anything on the site demanding registration fees for services rendered via Econet, Telecel, and NetOne. Kshetri and Acharya (2012:4) contend that the "more serious effects of mobile malware are likely to be felt in the future, as cybercriminals find ways to monetise malware and increase the revenue per-infection ratio for such malware". Countries such as Zimbabwe are victims of mobile malware due to a less developed antivirus industry and it being an emerging economy. However, in view of this challenge digital money transfers and payments have made criminal activities more difficult since cash based transactions are more vulnerable to opportunistic crime (de Castri, 2013:8).

4.8 MARKETING BARRIERS TO ENTRY

This study is based on the influence of marketing mix elements on mobile banking adoption, so there is need to discuss how the traditional 4Ps of product, price, place and promotion influence mobile money and mobile banking service in Zimbabwe.

4.8.1 Business Rules for Interconnection are Still Evolving

Although ZIMSWITCH has made great progress in connecting players in the banking industry, there are some challenges in distributing digital products to users due especially to interoperability and infrastructure shortage. For example, Econet Wireless is resistant to opening up its platforms through joining Zimswitch, as it argues that it suffered in creating its infrastructural base. As yet there is no consensus on the interchange fees. At the time of writing this thesis, on-going discussions were on the table for all stakeholders to agree on infrastructure sharing modalities.

4.8.2 Distribution networks do not reach remote areas

There are fewer network agents and base stations in the rural areas than in the urban. Dermish *et al.* (2012:28) asseverate that rural financial consumers have to travel to growth points in order to access their pensions, which has become costly for them, thus resulting in them reducing the frequency of going to banks. The players in the industry should ensure that investment in infrastructure, agent networks, and point of sale (POS) are made available in most rural areas to ensure the smooth distribution of digitalised products. However, there is a critical challenge about how liquidity will be managed given the geographical dispersal of the agents and other intermediaries. Due to such risks, the expansion of the distribution networks in Zimbabwe is likely to take long. However, infrastructure sharing may reduce the impact of these gaps. Despite these challenges, the RBZ (2013) has

challenged the banking institutions to leverage mobile banking as it is an effective and efficient distribution network for digitalised financial products to get to various communities in Zimbabwe.

4.8.3   Product Pricing Still Needs to be Verified

Pricing approach terms and conditions of financial products have to be transparent and comprehensively disclosed to intended recipients (RBZ, 2011:19). The pricing approach needs to be affordable to promote financial inclusion in the country (RBZ, 2011). The central bank encourages, in its Monetary Policy Statements, local banks to adopt cost effective and efficient means and low cost deposit models that foster accessibility to banking services for people (RBZ, 2015:15). Dermish *et al*. (2012:28) note that the pricing model for the mobile banking services is complicated since the idea is still in its infancy. However, a host of researchers (Dermish *et al*., 2012; FinScope, 2012; Bara, 2013; Kufandirimbwa *et al*., 2013) contend that Zimbabweans are quite price sensitive, following the horrifying hyperinflationary period of 2003-2008.

Research is indeed need to be done in Zimbabwe to explore and understand consumers' perceived views on price satisfaction dimensions about mobile banking facility since this is a new service facility. This is especially difficult for financial consumers who have been operating in the informal markets and now coming into the formal financial system. This research closes this gap with the empirical evidence obtained. Financial inclusion can be promoted convincingly in Zimbabwe provided realistic strategies are put in place to increase price confidence and transparency levels in the payment systems (RBZ, 2015:55). The oligopolistic nature of the mobile banking industry poses the challenge of coming up with a suitable pricing model in Zimbabwe.

4.8.4 No Representative Body

Some of the marketing barriers come as a result of the fact that the mobile banking industry does not have a body to represent the concerned players with one voice. Such a body would be critical and significant in that it would be a tool to coordinate the industry's activities, create a level playing field, and effectively and efficiently work with both RBZ and POTRAZ as the regulatory authorities. Therefore, there is a need to integrate the Telecommunications Association of Zimbabwe (TOAZ) and Bankers Association of Zimbabwe (BAZ) to solve this problem.

4.9 THE STRATEGIC ROLE of MOBILE BANKING in ZIMBABWE

4.9.1 Financial Inclusion

The challenge in Zimbabwe is not just access to bank accounts but also access by financial products consumers to financial services. There is a need for people to have access to affordable financial

services as this is critical for economic growth and poverty alleviation (RBZ, 2012:42). The economy cannot grow exponentially if the broader sectors of the Zimbabwean population do not have access to efficient and effective financial services. There are indications that the use of financial products and services in Africa have challenges in building strong and financially inclusive financial sectors in Africa (Demigu-Kent and Klapper, 2012:2). However, the advent and phenomenal penetration of mobile phones reaching 106% in Zimbabwe by February 2014 (POTRAZ, 2014) meant that these new devices have helped to broaden access to financial services, savings, insurance, transfers and payment products. Mobile phones have helped the banking industry to conveniently reach the already banked, the underbanked and the unbanked thus improving financial inclusion goal of the government. The Zimbabwean government through the Reserve Bank of Zimbabwe have considered key steps towards mobile banking implementation as a policy regulation (Reserve Bank of Zimbabwe, 2011). The implementation of mobile banking varies according to people taking the lead, the government supportive role and whether it is provided as an additive channel (CGAP, 2008). Mobile banking has reached large numbers of low income and previously unbanked consumers of financial services by moving millions of especially the low income people from cash based economy to the more formalised financial system (di Castri, 2013:7). Leveraging technology, the mobile phones have provided a platform to widen access to a variety of financial products and services by low income groups (Mataruka, 2015:3).

4.9.2 Competition

Mobile money services and the telecommunications have become agile and enormous rivals to conventional banks and the financial sector. Mobile banking is a cheaper channel alternative to banks. Mobile network operators are not banks but have the ability to serve as a channel that offers a wide range of banking services through cell phones, and the money eventually gets into the bank. Banks in Zimbabwe have failed to be innovative technologically and as a result they are now crying foul that the telecommunications are robbing their business. The intensity of competition in the Zimbabwean telecommunication industry and the banking industry has significantly benefited the industries as a whole, as well as serving the economic well-being of consumers, as the financial services have become affordable even for the rural people. There are dangerous fears that the growth of mobile banking and mobile money transactions has definitely disrupted the operations, profitability levels and potential of conventional institutions (Mutandi, 2014). However, this has happened as a result of complacency and a lack of innovation initiatives by these traditional banks in Zimbabwe. MNOs are therefore not to blame.

4.9.3 Financial Integrity

Mobile banking has been proven to reduce the risk associated with using mobile platforms as gateways for financing terrorism or the laundering of capital. The risk is quite low because of the nature of the devices, which track all transactions and locate users. Mobile banking only allows the movement of small amounts of money. di Castri (2013:8) argues that mobile banking has the ability to fight or to mitigate the risks of financial crimes committed by the informal service providers, together with threats to the integrity of formal financial services, by bringing large numbers of people and transactions into the formal systems at very low costs.

4.9.4 Financial Stability

Rosengren (2011:2), the President and Chief Executive Officer of the Federal Reserve Bank of Boston defined financial stability in the following quote.

"Financial stability reflects the ability of the financial system to consistently supply the credit intermediation and payment services that are needed in the real economy if it is to continue on its growth path. Financial instability occurs when problems (or concerns about potential problems) within institutions, markets, payments systems, or the financial system in general significantly impair the supply of credit intermediation services – so as to substantially impact the expected path of real economic activity."

From the above explanations, it can be noted that an economy can only be stable if it resists economic shocks and should ensure that financial intermediation, risk management, and payment systems and arrangements are not in a shambles. The financial crisis in Zimbabwe from 2003 to 2008 gave people some memorable lessons which have attracted academics to develop an interest in studying this problem. The answer to some of the problems rocking the country has been provided by mobile banking and mobile money. di Castri (2013:7) posits that an inclusive financial system has more diversified and stable retail deposits, which makes the financial system more stable overall. Mutandi (2014) comments that the mobile commerce frontiers have been advanced, with mobile banking accounting for more than 85% of retail transactions and in a way contributing to the stability of finance in the economy. See the following figures.
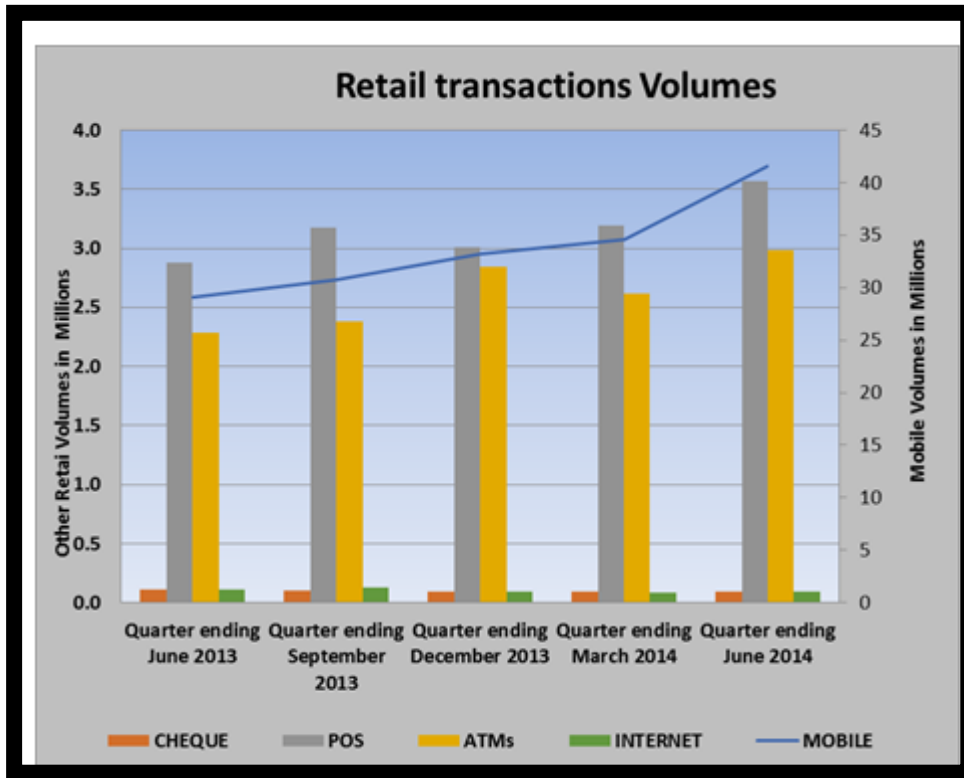
Fig. 4.3. Retail transactions volumes from 2013 to 2014. Source: National Payment Systems Department, Reserve Bank of Zimbabwe (14 July 2014).
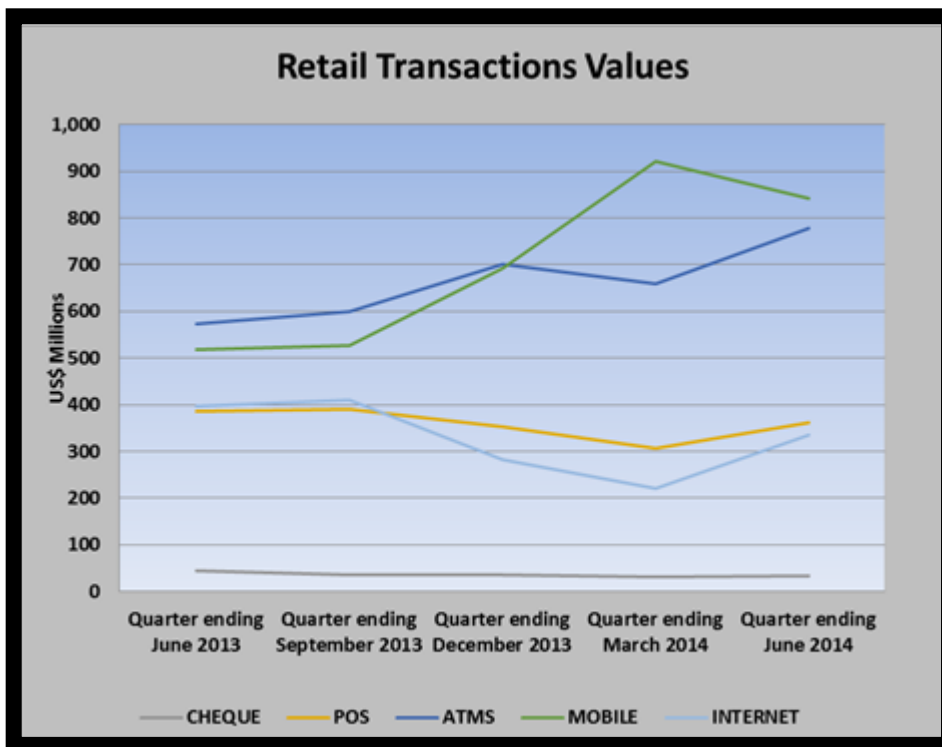
Fig 4.4 Retail Transaction values from 2013 to 2014. Source: National Payment Systems Department, Reserve Bank of Zimbabwe (14 July 2014).

The statistics in figures 4.3 and 4.4 show the contribution of mobile banking and mobile payments in retail banking. There was a sharp rise in mobile devices transacting business activities from the last quarter of 2013 to the second quarter of 2014.

A considerable number of financial consumers conduct transactions of small amounts which may not cause any systemic risk because this is representative of only a small section of the financial system. di Castri (2013:7) argues that mobile banking has played a critical role in helping policy makers and households to manage crises that affect financial stability. Mobile banking has the remarkable ability to cope with severe shocks to the local economy's payment systems and to curb a liquidity crunch (di Castri, 2013:8). The case of Haiti is one that should serve as an example in a natural disaster that needed rapid attention. Researchers argue that the time needed to restore a mobile network is less than the time needed to rebuild physical infrastructure, for example ATMs and POS. Hanning and Jensen (2010) cited in di Castri (2013:8) submit that technology based financial inclusion services such as mobile banking have "idiosyncratic risk profiles that can be appropriately regulated and supervised".

4.9.5 Economic Development

Economic development is a process of the structural transformation of an economy towards modern technological advancement based on services and manufacturing. Mobile phones have provided a transformational dimension within the banking fraternity. Banks have had difficulty in reaching and offering profitable financial services throughout the conventional banking, so they have seen mobile banking as a channel to achieve this (Donner and Tollez, 2008). The Ministry of Finance and Economic Development may be assisted by mobile banking through a cost effective collection of taxes and fines (Ignatio, 2010:10). The Reserve Bank of Zimbabwe (RBZ) is possibly better able to handle money velocity in the economy through the reduction of holding cash under the mattress' (Agenyi, 2013:12). Another economic development of m-banking is that pensions are made easily available and are distributed cheaply, effectively and directly into the bank accounts of even the remote rural communities (Agenyi, 2013:12). The Ministry of Finance (MoF) started levying a tax of 5 cents on all mobile money transactions. This was done to be in line with the same tax regime being applied to Automated Teller Machines (ATMs) and Point of Sale (POS) transactions (Karombo, 2014). Karombo (2013) adds that the telecommunication industry contributes 12% to the Zimbabwean economy's Gross National Product, which is a significant contribution. In July 2012, mobile banking payment facilities increased phenomenally by 575% to US$8.1 million in 2011 from a low of US$1.2 million in 2010 as opposed to Internet banking which increased by 132% in the same time period (Karombo, 2014).This shows the economic contribution of mobile banking.

4.9.6 Interoperability and Regional Trade Integration

The RBZ (2013:54) defines interoperability as 'the ability of different systems, networks, applications and other infrastructure of different entities to interlink and work in congruence effectively and efficiently". Gillis and Pillay (2012:144) define it as "the ability of diverse systems and organisations to work together". Infrastructure sharing is deemed as the best avenue to potentially close the cost and access gaps that hinder the efficient delivery of financial services. Therefore relationships need be developed amongst the financial institutions and the payment systems providers which should be complimentary not acrimonious (RBZ, 2013:55). Stakeholders in mobile banking should bear in mind the different types of interoperability, benefits, costs, and risks (di Castri: 2013:31). The emergence of mobile banking has contributed towards improved national payment systems by improving the interoperability between and among national boundaries in the Southern African Development Community (SADC) region. Gillis and Pillay (2012:145) argue that a developed and integrated payment system fosters cross-border trade and regional integration. The number of people in the SADC with mobile phones has surpassed the number of people with bank accounts by 2010. Therefore mobile phones have become a distribution channel with a great potential (Gillis and Pillay, 2012:150) as they provide opportunities to move funds digitally thus contributing to the monetary base of the Zimbabwean economy. Mobile banking has a key role in facilitating remittances between countries in the SADC. Gillis and Pillay (2012:150) state that "although remittances are centred on cash and movement of cash, through mobile technologies, they can also become a likely cash displacement catalyst to stimulate market adoption of other financial payments and banking facilities as need presents itself". Econet Wireless recently developed a product that affords the 'diasporians' to remit their funds to their relatives and allows other business transactions to Zimbabwe via its platform.

4.9.7 Increase in Efficiency and Lower Cost

The deployment of new technology has resulted in lower operational and overhead costs and these have been passed on to the final users by way of cheaper prices (Agenyi, 2013:22). Opening new branches is quite costly in Zimbabwe: it costs more than US$12000 to open a single branch, whereas a network agent can be opened with only $500. Agenyi (2013:22) notes that the affiliation of other sectors in mobile banking can significantly result in combined promotion efforts from the involved stakeholders. It becomes cheaper and more efficient to bankroll and improve the traction of mobile banking if stakeholders pool their financial resources and share infrastructure. In one of the pieces of research, it was found that transactions ofUS$23 cost 38 cents for branchless banking, against a conventional banking cost of 54 cents (Kshetri and Acharya, 2012:3). Mobile banking has also substituted the risk of moving with cash. Although cash remains the most common way of payment, it

is the most expensive and the least secure and safe means. The European Commission (2008) asserts that the total cost of processing all payment methods including cash, cheques, and payment cards was equivalent to 2%-3% of a country's Gross National Product. Therefore mobile banking is likely to be the solution for the poor and low income people who are not formally banked.

4.9.8 Employment Creation

In a bid to uphold and support the Zimbabwe Agenda for Sustainable Socio-Economic Transformation (ZIMASSET), mobile banking has created a number of jobs in the country. The Reserve Bank of Zimbabwe reports that the mobile sector has generally generated new employment opportunities and that the platforms created have resulted in the growth of other businesses downstream of the mobile banking value chain. If there were over 24000 mobile network agents dotted around the country as opposed to bank branches and ATMs in Zimbabwe, this would mean that mobile money and banking would have created jobs for Zimbabweans of being agents as well as airtime vendors. The network agents work as banking clerks through transacting the cash-in and cash-out, sending and receiving money. Mobile money and banking are reported to have moved over 6.1 billion US dollars and created over 40 000 jobs in six years country-wide (NEW-ZIANA, 2015). In the same vein, mobile banking and mobile money schemes have created more jobs in Kenya as Safaricom's M-PESA supported a network of 23 000 agents in 2012 (Andjelkovic and Imaizumi, 2012:75). As the adoption of mobile banking technology improves, new jobs have been created to sell prepaid mobile phone minutes, and to enable mobile banking transactions, and other mobile commerce transactions (Andjelkovic and Imaizumi, 2012:85).

4.10 CHAPTER SUMMARY

This chapter has focused on the historical development of mobile banking in Zimbabwe from 2005 to date. Mobile banking may be viewed as the building blocks of the digital financial system. Definitely, it has the potential to give Zimbabweans access to banking solutions by storing their value securely and conveniently and to build up a low cost distribution channel in which financial consumers are better able to access a wide range of financial services. Despite the growth of mobile banking in this country, it is has been observed that it's imperative for developing a successful regulatory framework to come up with an open dialogue and consultative process between the regulators (RBZ and POTRAZ) and the private sector (the Bankers Association of Zimbabwe and Telecommunication Association of Zimbabwe). This study has shown that mobile banking has really proved to be a powerful channel in establishing more inclusive, stable and secure financial sectors. This chapter holds testimonies that mobile banking contributes to economic development through employment

creation, wealth generation, reduction in poverty, improvement in the general standard of living of Zimbabweans as well as financial inclusion through financial deepening. The next chapter discusses the methodology that was pursued by the researcher to make this study a reality.

CHAPTER 5

RESEARCH METHODOLOGY

5.1 INTRODUCTION

Saunders and Rojon (2014:3) define methodology as a term referring to "the theory of how research should be undertaken". They further argue that it involves the philosophical assumptions and underpinnings upon which the research is based (Saunders and Rojon, 2014). This chapter discusses the research methodology that made the collection of data a reality for this study. It initially considers a mixed research design (a descripto-explanatory design), and further explores the quantitative and qualitative research approaches used in this study. The population for the study consisted of 384 rural people without formal banking accounts. The research considered the use of multi-stage approach to be the most appropriate sampling strategy in order to segment Masvingo province and further to this a snowball technique was used to identify more respondents since the statistics of the rural unbanked in Masvingo province were unknown. Respondents were intercepted at growth points and townships for interviewing. Subsequently, the reliability and validity of the instruments used to measure the influence of the marketing mix elements on attitude and behavioural intention to adopt mobile banking by the rural unbanked and the manner in which the research instruments were administered, will be explained in detail. The chapter will finally focus on the statistical tests that were done on the available data from this survey.

5.2 CRITICAL RESEARCH QUESTION

The critical review of the related literature could not sufficiently answer the critical research question and the set of hypotheses. Therefore scientific enquiry and empirical search was used. Below is the main research question restated:

Can the extension to and adoption of mobile banking services by the rural unbanked through effective use of the marketing mix tools, lead to increased financial inclusion in Zimbabwe?

5.2.1 Hypotheses

Basing on the review of related literature, a set of research hypotheses which have guided the conceptual model was formulated in Chapter 3 as follows.

5.2.1.1 Financial product related hypotheses: H1

H1a: Perceived usefulness has a positive influence on attitude to adopt mobile banking by the rural unbanked.

H1b: Perceived ease of use has a positive influence on attitude to adopt mobile banking by the rural unbanked.

H1c: Service trialability has a positive influence on the attitude to adopt mobile banking by the rural unbanked.

H1d: Accuracy of the mobile system has a positive influence on mobile banking adoption by the rural unbanked.

5.2.1.2 Price related hypotheses: H2

H2a: Price transparency has a positive influence on attitude to adopt mobile banking by the rural unbanked.

H2b: Price-quality ratio has a positive influence on attitude to adopt mobile banking by the rural unbanked.

H2c: Perceived costs have a negative influence on attitude to adopt mobile banking by the rural unbanked.

H2d: Price reliability has a positive influence on attitude to adopt mobile banking by the rural unbanked.

5.2.1.3 Digital place related hypotheses: H3

H3a. Trust has a positive influence on attitude to adopt mobile banking by the rural unbanked.

H3b: Network coverage has a positive influence on attitude to adopt mobile banking by the rural unbanked.

H3c: Distribution dependability has a positive influence on attitude to adopt mobile banking by the rural unbanked.

H3d: Service convenience has a positive influence on attitude to adopt mobile banking by the rural unbanked.

5.2.1.4 Promotion related hypotheses: H4

H4a: Advertising has a positive influence on attitude to adopt mobile banking by the rural unbanked.

H4b: Personal selling has a positive influence on attitude to adopt mobile banking by the rural unbanked.

H4c: Financial education has a positive influence on attitude to adopt mobile banking by the rural unbaked.

5.2.1.4 Attitude related hypothesis: H5

H5: Attitude has a positive influence on behavioural intention to adopt mobile banking by the rural unbanked.

5.3 RESEARCH DESIGN

Blumberg *et al.* (2011:57) define a research design as "the blueprint for fulfilling objectives and answering questions". Gupta (2007:39) defines a research design as a plan of action the researcher has to carry out in connection with the proposed research work. Hair *et al.* (2003:40) describe it as "a master plan of the methods and procedures that should be used to collect and analyse the data needed by the decision maker". Malhotra and Birks (2006:56) view a research design as "a framework or blueprint for conducting the marketing research project. It details the procedures necessary for obtaining the information needed to structure or solve marketing research problems". Aaker *et al.* (1998:71) describe a research design as "the detailed blueprint used to guide a research study toward its objectives".

The above definitions show three issues in common. They indicate that a research design is a plan for selecting the sources and type of information, that it provides a framework for detailing relationships among the research variables, and that it provides the blueprint that specifies how data and hypotheses are to be analysed. These definitions obviously differ in their details but they all give the fundamentals of the research design. The authors of these definitions tend to agree that a research design is a detailed plan and blue print that is used by the researcher to guide the study towards the intended objectives and to keep track of the researcher's actions.

Hair *et al.* (2003:41) strongly posit that the determination of a suitable research design is functionally fundamental if the research objectives are to be met. In the design, the research must consider the type of data involved, the design technique, population and sampling methodology and procedures, documentation, data collection, testing hypotheses, interpretation, presentation and reporting (Hair *et al.*, 2003:41; Gupta, 2007:39).

Cooper and Schindler (1998:130) highlight that research design provides answers to such questions as:

(i) What techniques will be used to gather data?
(ii) What kind of sampling will be used?
(iii) How will time and cost constraints be dealt with?

By using a research design with diverse methodologies, a researcher is able to achieve greater insight than by using a single methodology (Blumberg *et al*., 2011:57). In view of this statement, this study used 'descripto-explanatory' research design (Saunders *et al.,* 2009:40) which is a mixed research design based on both descriptive and explanatory studies, in order to collect the primary data..

5.3.1 Descripto-Explanatory Research Design

A descriptive research design is the one that generally describes the characteristics of a consumer segment (Gupta, 2007:45). Robson (2002:59) cited in Saunders *et al*., (2009:140) posits that a descriptive design portrays a correct picture of persons, events or situations. Blumberg *et al*. (2011:491) describe a descriptive design as a method that tries to define a subject normally by profiling a group of problems, people or events through tabulation of frequencies and use of univariate analysis or hypothesis. This design is distinct as it provides results with better interpretation than mere use of one design. It is regarded as a piece of explanatory research (Saunders *et al.,* 2009:140). Saunders *et al.* (2009) further note that where a study uses a descriptive design it will be a precursor to explanation and therefore the name 'descripto-explanatory' design. However, explanatory design is an analytical study and is meant to identify causal relationships between variables that pertain to a research problem (Saunders *et al*., 2009:140). It is quite well structured in nature and therefore links very well with a quantitative research approach. Blumberg *et al*. (2011:492) further note that explanatory design explains the reasons for phenomena by using theories and derived hypotheses and yields answers to questions starting with why and how. From the above discussion it can be observed that descriptive design attempts to ask 'what' kinds of questions and explanatory design strives to ask 'why' and 'how' questions.

5.3.2 Justification for the Research Design

In order to accomplish the research purpose and respond to the stated hypotheses, the researcher began by using a descriptive research design which enabled him to relate it to causal design in order to establish the influence of the marketing mix elements on behaviour and attitude to adopting mobile banking in Zimbabwe. This design was a hybrid one which benefited from the strengths of both methods. Since descriptive design can provide information about sizes, form, distribution or existence of a variable, it therefore links well with the quantitative research approach and is a precursor to explanatory design which involves a lot of inferential statistics. In fact, descriptive designs are able to produce a descriptive statistical analysis which would form the basis for further statistical calculations, thus providing richer information to the researcher.

5.3.3 Limitations of the Research Design

This research design does not yield qualitative results as it focused more on quantitative research. Qualitative results could have been obtained if exploratory design had been used. However, due to following the mixed methods research approach, qualitative needs have been addressed.

5.4 RESEARCH APPROACHES

5.4.1 Mixed Research Approach

This study involved the use of a mixed research methodology. Mixed approach entails the utilisation of qualitative (open-ended) and quantitative (close-ended) data in response to research questions or hypothesis set. This method is an integration of the both qualitative and quantitative designs in which data is merged, connected, and/or embedded (Saunders *et al.,* 2009:598; Creswell, 2014:217). It can be observed as the continuous integrated collation of both kinds of data (Miles *et al*., 2014:42). Mixed method research may be seen as an approach in which qualitative and quantitative research methods are combined for the same research problem or enquiry (Venkatesh *et al*., 2013:21). Data collection and analysis procedures can be done at the same time (parallel) or sequentially but does not combine the two (Saunders *et al*., 2009:152). The use of mixed method can compensate for the deficiencies of both qualitative and quantitative method with the strengths of these. Mixed method was also pursued because it resulted in discoveries of a wealth of data.

5.4.2 Justification for the Mixed Method

Miles *et al*. (2014:42) and Saunders *et al*. (2009:152) provide the following reasons for undertaking a mixed method research approach. It has the advantage of complementarity. The use of several methods has the capability of complementing each other from various aspects of investigation (Saunders *et al*., 2009). This is supported by Miles *et al*. (2014:42) by saying that the genres can reinforce the analytic findings when the findings of each genre support, collaborate or contradict each other. Divergent views are significant in that they may call for re-examination of the conceptual framework (Venkatesh *et al*., 2013:25).The researcher pursued this research approach because recent studies have shown that there is a dearth of research in information systems (Venkatesh *et al*., 2013:22) and in mobile banking adoption, in a single research enquiry. Mixed methods research can address confirmatory and exploratory research questions simultaneously. For example, studies in e-commerce have been using exploratory qualitative studies to explore the perceptions of people about e-commerce implementations (Venkatesh *et al.*, 2013:22).

5.4.3 Quantitative Approach

The researcher used a predominantly quantitative research approach since the research problem was to investigate the influence of marketing mix elements on mobile banking adoption by the rural unbanked consumers in Zimbabwe. Creswell (2003:18) defines a quantitative research approach as one

"In which the investigator primarily uses post positivist claims for developing knowledge (i.e. cause and effect thinking, reduction to specific variables and hypotheses and questions, use of measurement and observation and the test of theories, employs strategies of enquiry such as experiments and surveys and collects predetermined instruments that yield statistical data".

Creswell (2009:12) also later defines a quantitative research approach as "research which performs mathematical modelling and statistical estimation or statistical inference or a means for testing objective theories by examining the relationship between variables".

In a different definition, Hair *et al*. (2003:680) view a quantitative approach as a data collection method that considers the use of formalised, standard, structured questioning practices where the response options have been predetermined by the investigator who administers it to large numbers of respondents. This approach involves putting theoretical constructs to test according to Jonker and Pennick (2010:66). They add that a quantitative research approach is by way of closed questions that result in a problem definition appearing from the onset of the study. Wilson (2012:130) defines it as research that is undertaken using a structured research approach with a sample of population to produce quantifiable insights into behaviour, motivations and attitudes.

From the above definitions, it can be observed that quantitative research approach is more structured and less flexible that qualitative research. The research tends to use larger samples of individuals as opposed to qualitative research.

5.4.3.1 Justification for Quantitative Approach

The researcher used a quantitative research approach because the method was able to yield large quantities of data which could not be raised if he had only used qualitative research. Since the research problem was based on analysing attitude and behaviour, the quantitative approach helped the researcher to test Davis and Rogers' theories by specifying narrow hypotheses and collecting data to support or refute the hypotheses (Creswell, 2003:20). This approach was relevant as it could relate variables, used standards of validity and reliability, measured information numerically and used unbiased approaches. In this study, the researcher followed a positivist approach because using a scale to collate information from large samples to be analysed and then generalised to some certain extent, would need a quantitative approach.

The quantitative method has a long and rich historical tradition that is well supported by a variety of methodological and instrumental possibilities (Jonker and Pennick, 2010:73). As such, it provides an academic premise and scientific tradition that is widely recognised.

5.4.3.2 Limitations of Quantitative Approach

While a quantitative approach is endowed with considerable benefits, the following limitations need be observed. Jonker and Pennick (2010:72) argue that a quantitative approach respects strict methodological approaches that do not leave any margin for unexpected developments in the world since the questions asked are normally closed. With this in mind, no new insights were generated as the respondents were placed in a closed loop.

The fact that excessive respect is given to figures that are generated intentionally and perceived as objective facts, defeats the whole purpose of this approach (Jonker and Pennick, 2010:73). Qualitative facts are sometimes important in a subjective environment where better insights may be generated.

5.4.3 Qualitative Research Approach

Qualitative research is a research approach where a semi-structured or an unstructured interview is aimed at generating data (Saunders *et al.*, 2009:598; Creswell, 2014:190). Kumar (2012:394) defines it as an approach "based upon the philosophy of empiricism, follows an unstructured, flexible and open approach to enquiry, aims to describe rather than measure, believes in in-depth understanding and small samples, and explores perceptions and feelings rather than facts and figures". Unstructured and open-ended questions are used and will be few in number. These will be intended to elicit views and opinions from the respondents (Creswell, 2014:190). Qualitative research is a conduit to explore and understand the meaning individuals "ascribe to social or human problem" (Creswell, 2014:246). The method also considers questions, procedures and data collection in the environment of the participant, and the data is analysed inductively. However, this method is heavily criticised on the grounds that it lacks scientific strength, that there is no clear transparency in the procedures taken to analyse the data, and that it entails the collation of general opinions of people which may be influenced by the researcher (Noble and Smith, 2015:34).

5.4.3.1 Justification for Qualitative Research Method

Qualitative research approach is essential in that participants can provide historical information and the researcher has a great deal of control over the line of questioning (Creswell, 2014). However, it helps the researcher to "understand, explain, explore, discover and clarify situations, feelings, perceptions, attitudes, values, beliefs, and experiences of a group of people" (Kumar, 2012:106). It is understood that qualitative research is more flexible since most of the methods used are not as structured and sequential as quantitative ones.

However, in the qualitative research approach it is difficult to check researcher bias because of flexibility and lack of control (Kumar, 2012:106).

5.5 STUDY SITE

MASVINGO PROVINCIAL MAP
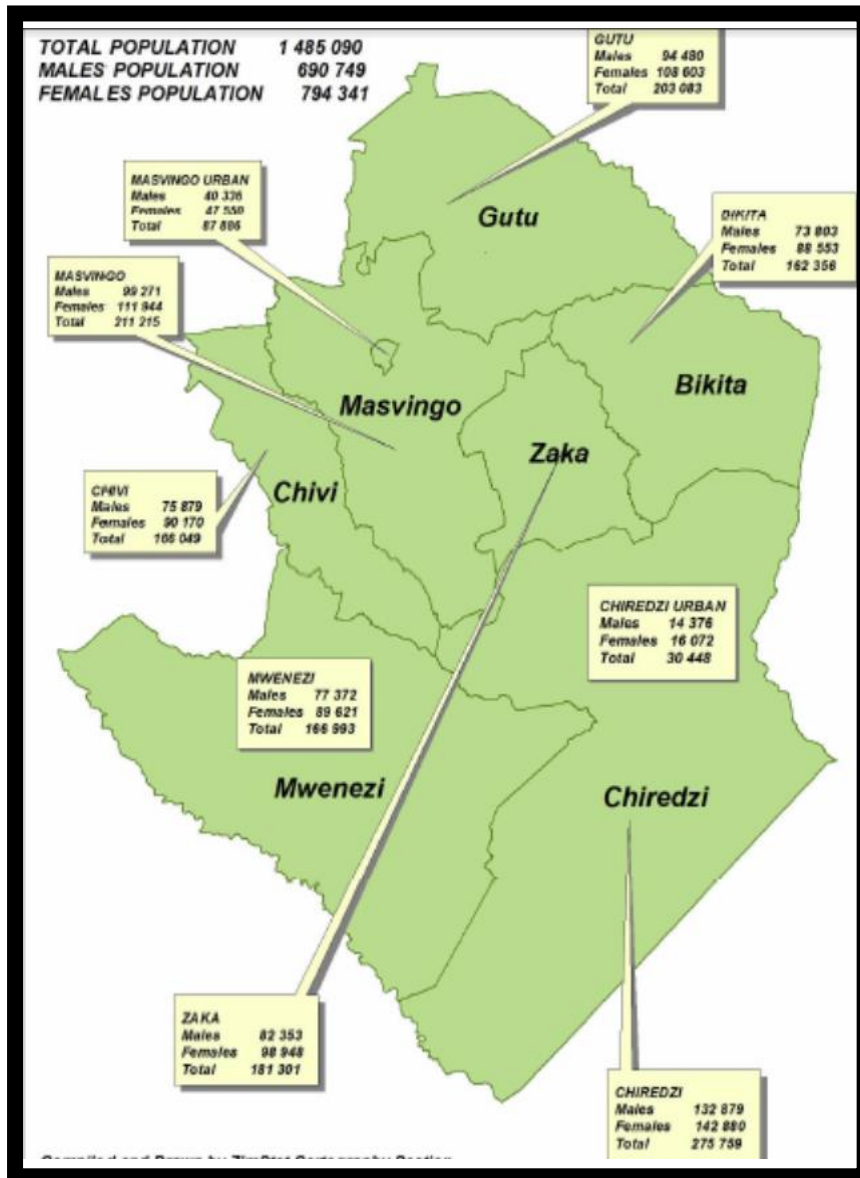
Fig 5.1 Study site. Source: Adapted from ZimStats (2012)

5.5 STUDY POPULATION

According to Hair *et al*. (2003:679), population is the totality of an identifiable set of members of the community being investigated by the researcher. It may be referred to as the entire pool from which a statistical sample is drawn. Blumberg *et al*. (2011:498) define population as the total collection of elements about which the researcher intends to make some inferences. This study's population is the rural unbanked in Masvingo. FinScope (2012:5) from its survey noted that the general rural unbanked in Zimbabwe is 51%. Based on this estimation, with a rural population of 1 366 756 in Masvingo, the unbanked in this province is therefore **697 046.** The population includes such segments as those rural people that own or use mobile phones but do not use any kind of mobile banking systems (Medhi *et al*., 2009:) but are registered customers of Econet, Telecel, and Netone, and they do not possess any bank account in Zimbabwe and those who use mobile money systems.

Table 5.1: Target Population

District Name	Rural Banked (49%) and Unbanked (51%)	Population of Rural Unbanked (51%)
1.Bikita	162 356	82 802
2.Chiredzi	275 759	140 637
3.Chibi	166 049	84 685
4.Gutu	203 083	103 572
5.Masvingo	211 215	107 710
6.Mwenezi	166 993	85 166
7.Zaka	181 301	92 463
Total	**1 366 756**	**697 046**

5.6 STUDY SAMPLE

A sample is a group of people or respondents which comprises a part of the target population that is carefully selected to be representative of the population (Blumberg *et al*, 2011:501). The sample refers to a subset of the whole population selected to participate in the study. The sample for the study involved people with cell phones but who do not use any mobile banking facility and do not possess currently a bank account in Zimbabwe.

5.7 STUDY SAMPLE SIZE

According to Zikmund (2003:423), the sample size has a direct impact on the accuracy of the research findings. A suitable sample size is influenced by the variation or standard deviation of the population, the magnitude of acceptance error and the confidence level. The sample size impacts the statistical power for the test to realistically identify significant results (Hair *et al*., 2009:22).

With 681 656 unbanked consumers and to have a sufficient sample in order to generate a 95% confidence interval that will predict the proportion who could be people with plus or minus 5%, the needed sample size will be 384 (Kregcie and Morgan, 1970). Krejcie and Morgan (1970) propounded a theory that stipulates possible sample sizes given different confidence levels. For a population that is 500 000 people and above, a sample size of 384 is sufficient at 95% confidence level. Given this sample size, the following was the distribution of the samples from the given five districts that were randomly selected due to budgetary constraints. The sample sizes per district were scientifically calculated using ratio computations.

Table 5.2 Sample size by district

Name of District	Unbanked Population	Sample size per district
Bikita	82 808	63
Chibi	84 685	64
Chiredzi	140 637	106
Masvingo	107 710	81
Zaka	92 463	70
Total	**508 303**	**384**

A population that is greater than 10000 elements is considered large. The population for the current study is made up of 697 046 elements which can be considered large enough. By using Fisher's formula, the sample size for this study would be determined as follows:

$$n = Z^2 pq/d^2$$

where n= the desired sample.

Z= the standard normal deviation set at 1.96 which corresponds to 95% confidence interval.

p = Target population forecasted to have characteristics to be measured. The researcher set this at 50% for this study.

q = 1-p (population without the desired characteristics)

d= significance level which is equal to 0.05 for this research.

Hence, n= (1.96)(1.96)* (0.5)(0.5)/(0.05)(0.05)= 384 units

This sample size is just the same as the one according to Krejcie and Morgan (1970).

5.8 STUDY SAMPLING STRATEGY

5.8.1 Mixed sampling method

Blumberg *et al*. (2011:192) view a multistage sampling strategy as a process that includes data collection from a sample previously defined and further segmentation of subgroups is done in order to identify the rightful elements. Viewed differently, it is a development of cluster sampling technique (Saunders *et al*., 2009:231). Gupta (2007:207) defines a multistage sampling approach as a strategy that is conducted in several stages. In view of these definitions, a working definition for this sampling strategy is that it is a technique that is carried out in stages using smaller and even smaller sampling units at each stage. Normally it is done when the population under study is enormous and geographically widely spaced (Gupta, 2007; Saunders *et al.*, 2009; Blumberg *et al*., 2011). When a complete list of the population members does not exist, in the case of this study of the unbanked rural consumers, this method works very well.

Masvingo province was first divided into districts and after numbering them, four districts were randomly selected into collection districts. As the districts were still large, each district was subdivided into smaller geographically discrete wards and these formed the next sampling frame. A further simple random sample was conducted but this time a larger number of wards were considered to allow for the likely variations in the nature of the unbanked consumers between the wards. In order to reach the intended sampling units, a further sampling frame was generated from each ward to produce villages where they would be identified for selection.

This method was used because it helped to reach geographically widely spaced rural people in Masvingo which would not have been possible with the use of simple random sampling. It also benefited the researcher to reach the rural people since a complete list of the unbanked was not easily available. Given the budgetary constraints, the strategy was able to reduce costs and also saved the researcher's time. This method was more scientific in nature as the selection process followed a scientific norm at every stage (Blumberg *et al*. 2011:207). However, the research findings could never be 100% representative population and there were high levels of subjectivity.

To complement the above probability strategy, the researcher intercepted rural people at townships, growth points and after rural gatherings to select people for interviewing and to get referrals. Since the information for the unbanked did not exist in databases, the researcher opted to use the snowball approach which refers to a strategy used to select people who are difficult to identify and can be located by referral network (Blumberg *et al.*, 2011:196). Blumberg *et al*. (2011:196) posit that the respondents may first be identified using a probability sampling technique as is the case with this study.

This method was useful since the rural unbanked people were difficult to identify because they were not registered anywhere in the databases. It had a referral effect. However, the results based on this method alone make the generalisation of results impossible, but complemented with probability approaches it becomes a better strategy (Blumberg *et al*., 2011:196).

5.9 DATA COLLECTION METHOD

5.9.1 Primary Data Collection

Primary data collection is the original research whereby data is collected and is designed to specifically answer the research problem at hand (Blumberg *et al*., 2011:499). For the purposes of this study, only the survey method (structured interviews) was used as a primary source of data to reach the rural unbanked consumers in Masvingo province.

5.9.1.1 Structured Interview Survey Method

Structured interviews refer to those questionnaires where interviewers physically meet the respondents and ask questions face to face (Sekeran, 2006:227, Saunders *et al*., 2009:362). A survey is a primary data collection method which involves the collection of data by way of using a questionnaire to determine the opinions of a population based on the sample of the population (Creswell, 2009; Saunders *et al*., 2009:144). It is a technique in which data is gathered by use of structured instruments from a sample to discover the attitude and behaviour of respondents (Zikmund and Babin, 2010:64). This method normally uses a deductive approach and the data collected may be used to suggest possible reasons for particular relationships between variables and to produce models of these relationships. Having segmented the province into villages, the researcher randomly met people at townships, growth points, at social gatherings and weekly meetings (with previous notification) in order to interview them. Having identified the unbanked first, the researcher would then ask them to refer people in the same situation in order to get further respondents. The referral network was quite effective as more people were pooled in the interview

process. The researcher administered the interview and fully explained the questions to the respondents, especially to those who were less literate. One motivating issue was that many people were eager to learn more about the benefits of mobile banking for they seemed to feel that financial salvation had come to their door steps.

The researcher used this method because it allowed the collection of quantitative data that could be analysed quantitatively and inferential statistics could be used. A large amount of data could be collected from a big sample in an economic way (Saunders *et al*., 2009:144). The researcher had more control over the research process and the strategy could yield findings that were representative of the population at lower cost when the sample was used rather than collecting data for the whole population. The researcher used interviewer administered questionnaires because they are normally associated with a stronger response rate (for example, as high as between 50-70%) than self-administered questionnaires (Saunders *et al*., 2009:365). So this method fitted very well in this study because it supported both the descripto-explanatory design and quantitative research approach.

However, this strategy proved costly and time consuming for the researcher since it was face-to-face interviews. Also, some respondents were unwilling to respond to strangers. To avert this, the researcher motivated the respondents by giving them incentives and the researcher took advantage of being known in some districts having spent over ten years teaching in the province.

5.9.1.2 Secondary Data and Document Analysis

Blumberg *et al*. (2011:501) define secondary data as "studies done by others and for different purposes than for which the data are being reviewed and reused". In an analysis of secondary data, Vartanian (2011:3) posits that "secondary data can include any data that are examined to answer a research question other than the question(s) for which the data were initially collected". Saunders *et al*. (2009:631) view it as data used for a study that were originally gathered for some other purpose. Secondary data was used to collect data relating to the population status in Masvingo province from ZIMSTATS. It was also used to identify the districts, wards and villages that were selected randomly before conducting the research. This information was gathered from the Masvingo provincial administrator's office. Text books, articles, academic accredited journals, periodicals, newspapers, websites, dissertations, and thesis were also used to gather literature. The reviewed literature helped the researcher to understand the magnitude of the research problem of mobile banking adoption by the rural unbanked people in Zimbabwe. FinScope (2011, 2012) survey documents on the Post and Telecommunications Regulatory Authority of Zimbabwe and the Reserve Bank of Zimbabwe policy documents provided the researcher with statistics on the levels

of financial inclusion and exclusion. Bankable Frontier and USAID were a source of financial education and financial exclusion.

Again, secondary data formed the basis upon which the hypotheses were formed following the literature review. This study relied heavily on previously used questionnaires in related studies.

This method was used because it provided data at least cost and saved time of the researcher (Saunders *et al*., 2009:268; Blumberg *et al*., 2011:236).The method was much less expensive than collecting data from the field.

5.10 DATA COLLECTION INSTRUMENTS

5.10.1 Questionnaires

deVans (2002) cited in Saunders *et al*., (2009:360) defines a questionnaire as an instrument used in data collection in which a person is asked to respond to a similar set of questions in a predetermined manner. Questionnaires are usually used for descriptive and explanatory research (Saunders *et al*., 2009:362). A questionnaire is an instrument that entails questions that require the respondent to make a selection from a predetermined list of responses (Wilson, 2012:159). Questionnaires may be closed-ended or open-ended. Closed-ended questions ask the respondent to choose from among a set of answers, the response that must clearly represent his/her viewpoint (Sinicalco and Auriat, 2005:23). For the purposes of this study, closed-ended questions were preferred in the survey because of the ease of counting the frequency of each response and the ease with which the responses could be subjected to quantitative analysis. Questionnaires provided only what was asked for, which heavily strengthened the reliability and validity of the survey results. The format used in the questionnaire design controlled response bias and that also increased the data reliability. The questionnaire at the end provided four questions that were open-ended in order to capture further insights and opinions that could not be provided by closed-ended questions. Therefore the questionnaire was a semi-structured one.

However, the questionnaires required more time and skill to develop, as well as extensive pretesting, to ensure that the questionnaires could be accurately interpreted by the respondents and that the questions would measure what they were designed to measure. Closed-ended questions did not allow for creativity by respondents since they were confined to alternative answers.

5.11 DATA QUALITY CONTROL

Data quality refers to ensuring that the questionnaires used measured what they were supposed to measure and that they measured the attitude and behaviour of the rural unbanked in a consistent manner. The efforts and procedures that the survey researcher undertakes in order to ensure the quality and accuracy of data being collected, influence data quality control.

5.11.1 Reliability

Reliability is fundamentally concerned with issues to do with the consistency of measures (Bryman and Bell, 2012:157). Saunders *et al*. (2009:600) define reliability as "the extent to which data collection technique or techniques will yield consistent findings, similar observations would be made or conclusions reached by other researchers or there is transparency in how sense was made from the raw data". Reliability may refer to the extent to which the researcher's probability sample represents the population and the extent to which the research instrument yields consistent data from the respondents (Saunders and Rojon, 2014:6). In view of these definitions, reliability is therefore the degree to which a measure of a variable is stable. In fact, the questionnaire should produce similar results when re-tested on the same people at different times. A questionnaire can be tested for consistency either across different settings (external) or within itself (internal) (Coolican, 2009:194).

The internal consistency of the questionnaire was checked using Cronbach's Alpha tests. Cronbach's alpha is the widely used index to determine reliability. Sekeran (2006:307) describes Cronbach's alpha as a reliability coefficient which reflects how well items in a set positively correlate to each other. It relies largely on how people vary on items. If there is a tendency for great variance on the individual items in relation to how much they vary in overall on the test, then the test is measured as unreliable and a low alpha value will be recorded. Coolican (2009:195) argues that good reliability is represented by alpha values from 0.75 to 1. In support of this, Sekeran (2006:311) argues that reliabilities that are less than 0.6 are rated poor, those in the range of 0.7 are acceptable while those over 0.8 are considered really well. To ensure reliability, the questionnaire used in this study borrowed 95% of the questions from previously used scales.

5.11.2 Validity

Blumberg *et al*. (2011:505) define validity as "a characteristic of measurement concerned that a test measures what the researcher actually wishes to measure; that the differences found with a measurement tool reflect true differences among respondents drawn from a population". Saunders *et al*. (2009:603)

define it as "the extent to which data collection method or methods accurately measure what were intended to measure". Validity may be taken as the extent to which the findings are truly what they profess to be about (Saunders *et al*., 2009:603). Coolican (2009:36) asserts that the questionnaire or research instrument should measure what it really intends to measure despite that test might be highly reliable. Face validity is important because it shows that the measure really demonstrates the content of the concept in question. At the minimum, researchers who develop new measures should determine that they have face validity (Bryman and Bell, 2012:12). This researcher developed new measures in financial education, personal selling, percieved cost and to ensure validity, experts in the field acted as judges to determine the face validity of the measures.

Construct validity ensures that a scientific process to establish that a marketing construct is theoretically sound and that it fits into the surrounding theory (Coolican, 2009:200). The researcher was able to deduce hypotheses from the theory that was relevant to the study (Bryman and Bell, 2012:160). Coolican (2009:200) asserts that construct reliability involves the development of manifestations for hypothetical psychological constructs through the thoroughness of hypothesis testing and scientific methods.

Content validity is a subjective yet systematic way of assessing how well a rating scale measures the topic in question (Wilson, 2011:390). To ensure this, the researcher consulted a group of experts in the field of mobile banking and marketing discipline to give their comments on the extent to which all the marketing mix elements were included in the research instrument. Additionally, the research instrument used was closely linked to the theoretical aspects influencing the scope of this study and was strictly limited to the constructs and variables to be tested in mobile banking.

Pearson correlation matrix was used to check the validity of variables. If correlations are higher than 0.75 the researcher should be suspicious of whether or not the correlated variables are two different and distinct variables and the validity of the measures will be doubted (Sekeran, 2006:314). A correlation that does not exceed 0.6 for the sample shows a great deal of validity (Sekeran, 2006:314).

Wilson (2011:396) defines a pilot study as the pretesting of a research instrument before embarking on a full scale survey. This activity involves administering a research instrument to a small number of potential respondents. Martins *et al*. (1996:232) as cited in Soobramoney (2008:121) assert that researchers who avoid a questionnaire pre-test are either naive or fools. In view of this comment and to ensure validity, the researcher tested the questionnaire on some local unbanked people in Harare in order to identify and correct any flaws in the questionnaire design. A sample of 15 respondents was considered and a few sections of the questionnaire were altered to bring better meaning to them. Notably the average completion time for the 15 questionnaires was 19 minutes 20 seconds.

5.12 MEASUREMENTS

5.12.1 Nominal Scale

A nominal scale is data whose values are difficult to measure numerically but are distinguished by grouping them into sets (Saunders *et al*., 2009:596). It is information collected on a variable or object that naturally could be categorised into two or more groups and that are mutually exclusive (Blumberg *et al*., 2011:340). The numbers assigned to the objects are just labels that do not have any numerical value. A nominal scale is the least powerful scale and does not involve any order or distance relationships (Cooper and Schindler, 2004:223; Blumberg *et al.*, 2011:340). This scale was used in this study because it is widely used in surveys and because some statistical tests such as Chi-square tests could be applied (Cooper and Schindler, 2004:223; Blumberg *et al.*, 2011:340). The researcher used this scale to categorise the respondents' gender, marital status, tribe, nationality, and occupation.

5.12.2 Ordinal Scale

An ordinal scale is a scale that involves data whose values cannot be measured numerically but can be cleanly placed in order or ranks (Saunders *et al*. 2009:598). Although data can be ranked, ordinal scales do not show the distance relationship and the magnitude of the object. This scale was used in this study to measure the mode and the medians of certain variables and was used to rank the level of education and incomes of the respondents.

5.12.3 Interval Scale

Saunders *et al*. (2009:593) define an interval scale as "numerical data for which the difference or 'interval' between any two data values for a particular variable can be stated, but for which the relative difference cannot be stated". Interval scales have the ability to measure central tendencies such as mode, median, mean, and standard deviation. Many attitude scales are thought to be interval scales, so this scale was relevant as this study sought to determine the attitude and behaviour of rural unbanked consumers. Product moment correlation, t-tests, F-tests and other parametric tests can be applied under interval scales (Blumberg *et al*., 2011:342).

5.12.4 Ratio Scale

This a scale that is characterised by mutual exclusivity, data ranked in order, has distance, with equal values and has a unique origin; and numbers are used as to measure the numerical value of an object or variable (Cooper and Schindler, 2004:228, Saunders *et al*, 2009:599; Blumberg *et al*., 2011:500). This

type of ratio is rich when it comes to statistical analysis since the central tendency measure such as the mode, the median, the mean, standard deviation, variance, coefficient of variation and inferential statistics can be calculated (Gupta, 2007:126).

5.12.5 Likert Scale

The scales used in this study were based on the 5-point scale as advocated by Likert (1932). According to Saunders *et al*. (2009:594), a Likert-style rating scale is "a scale that allows the respondent to indicate how strongly she or he agrees or disagrees with a statement". This is the most used scale in most studies (Krosnick and Presser, 2010:268; Bryman and Bell, 2012:715). Osgood *et al*. (1957) propounded semantic differential using seven points while Thurstone (1928) developed equal appearing interval method using 11 points. Given these developments, there seems to be no standard for the number of points, although literature has it that more scale lengths are preferable in order to maximise reliability and validity (Krosnick and Presser, 2010:268,272). The measurement scale in this study was represented by 1=Strongly Disagree; 2=Disagree; 3=Neutral; 4=Agree; 5=Strongly Agree. The Likert scale helps the researcher to make a comparison of one respondent's score with a distribution of scores from a better defined sample (Cooper and Schindler, 2004:253).

The researcher used this scale because it was simple, needed less time, was easy to construct and is commonly used in surveys. However, it is unable to quantify and adequately explain a single score. Gupta (2007:131) feels that there is no basis for the belief that the five positions are equally spaced.

5.13 ANALYSIS OF DATA

Blumberg *et al*. (2011:490) define data analysis as an approach that involves editing and the reduction of accumulated data to sizes that are manageable, by developing summaries and examining patterns through applying relevant statistical techniques. The statistical technique chosen depends on the nature of the characteristics of the population, the survey method pursued, the measurements scales and the sample size. Data analysis is there to satisfy three main objectives namely (1) a feel for goodness of data (how good are the scales, how well was the coding and data cleaning done), (2) testing goodness of data (using Cronbach's alpha) and (3) the testing of hypotheses developed from the literature search (Sekeran, 2006:306). When choosing a statistical analysis technique, there is a need to follow some steps to ensure that the right techniques are chosen.

5.13.1 Descriptive Statistics

Blumberg *et al*. (2011:491) define descriptive statistics as the demonstration of the characteristics of location, spread, and shape of a wide range of data that give readers an insight into the distributions of observations. They are statistics used to describe observed variables (Saunders *et al*, 2009:600). They are classified as a univariate analysis since only one variable is considered and it is descriptive in nature.

5.13.1.1 Measures of Central Tendency

Central tendency is a measure of location usually the mode, median, and mean (Blumberg *et al*., 2011:488). The mean refers to the average, whereas the mode is the most common value in the observed scores and the median being the middle score of a ranked data (Cooper and Schindler, 2004:534).

5.13.1.2 Measures of dispersion

Measures of dispersion measures the spread of data or it describes how variables cluster or scatter in a distribution (Blumberg *et al*., 2011:496). The objective of dispersion is to measure whether respondents have similar opinions and attitudes towards an object. Standard deviation is a description of the average distance of the distribution scores from the mean (Cooper and Schindler, 2004:536; Saunders *et al*., 2009:601; Blumberg *et al*., 2011:502). If the standard deviation is large it means that the responses will not be close to the mean of the distribution and the reverse is true. The size of the standard deviation shows something about the level of agreement among the respondents when they respond to an array of questions (Cooper and Schindler, 2004:536).

Variance analysis is a measure of dispersion for a distribution which is an average of the squared deviation about the mean of the distribution of scores (Cooper and Schindler, 2004:536). Linked to the above measures is the coefficient of variation. Saunders *et al*. (2009:448) argue that there is a need to compare the relative spread of data between distributions of different magnitudes. When a comparison of different values of the statistic is done, the distribution with the largest coefficient of variation has the largest relative spread of data (Saunders *et al*., 2009:448).

5.13.2 Inferential Statistics

Quite often researchers need to explain relationships between variables and additionally they need to draw conclusions about the population based on the results of the sample (Pillay, 2007:109). This issue is solved by the concept of inferential statistics. Hair *et al*. (2009:601) define inferential statistics as "a process of coming to conclusion about the population on the basis of data describing a sample drawn from

the population". The purpose of inferential statistics is to estimate population values and to test statistical hypotheses (Blumberg *et al*., 2011:494). The essence of inferential statistics is to make conclusions about the population from the sample, to test hypotheses, to determine relationships and to make predictions.

5.13.2.1 Bivariate Correlation Analysis

Bryman and Bell (2007) view bivariate analysis as an analysis of two variables at a time in an attempt to discover whether or not the variables are related. Blumberg *et al*. (2011:488) describe this technique as a measure of correlation that uses non-contiguous variables and that distinguishes between independent and dependent variables. It assumes that a parametric correlation requires two continuous variables measured on an interval or a scale. It does not distinguish between independent and dependent variables for continuous and linearly related variables (Cooper and Schindler, 2004:570). So it means that it treats the variables symmetrically.

5.13.2.2 Pearson's Product Moment Correlation Coefficient

Saunders *et al*. (2009:597) describe Pearson's product moment as a statistical technique which examines the strength of the relationship between data variables. In this technique, there is a need to calculate the probability of the correlation coefficient. The coefficient varies from a range of 1 through zero to -1. Correlation coefficients reveal the magnitude and the direction of relationships (Cooper and Schindler. 2004:570). The strength of linkage is called correlation coefficient and is represented by the letter *r*. It therefore symbolises coefficient's estimate of linear association between variables. Pearson correlation r value closer to 1 indicates a highly positive relationship while an *r* value closer to -1 reveals a highly negative correlation. However, an r value close or equal to zero indicates no linear relationship. The square of the correlation (*r*) gives the proportion of criterion variance that can be accounted for by its linear relationship. For statistical significance, a significant value greater than 0.05 indicates a statistically insignificant linear relationship. However, a significant value of less than 0.05 indicates a statistically significant linear relationship.

5.13.3 Bivariate regression analysis

Hair *et al*. (2003:666) define bivariate regression analysis as "a statistical technique that analyses the linear relationship between two variables by estimating coefficients for an equation for a straight line". In this analysis, one variable is treated as a dependent and the other is designated as an independent (or predictor) variable. Regression analysis uses simple and multiple analyses to predict the dependent variable from the values of an independent variable. Therefore regression analysis is about predicting the future (the unknown) based on the data from the past (the known). This analytical technique was used

because it is a predictive measure. For example, the marketing mix variables treated individually, were used to predict the attitude and indirectly the behaviour of the rural unbanked consumers in Masvingo province. It is based on the assumptions that data behave in a linear form and there is bivariate normal distribution (Cooper and Schindler, 2004:574). The purpose of this technique is to determine variable importance, meaning to predict values or score on the outcome using one or more predictors. Its aims are to explain, predict and control. The evaluation of the relationships results in the formation of networks of variables which provide the basis for the development of theories about phenomena. This model has the ability to explain and predict the future behaviour of the dependent variable.

5.13.4 Multivariate Analysis

Hair *et al*. (2010:29) refer to multivariate analysis as all statistical techniques that simultaneously analyse multiple measurements on individuals or objects under investigation. Therefore any simultaneous analysis of more than two variables is considered as multivariate analysis. It is intended to measure, explain and predict the degree of relationships between variates. Multivariate was used because it is quite powerful analytically and has predictive capabilities (Hair *et al*., 2010:21), although the strength of accommodating multiple relationships can create a number of complexities in results and interpretations (Hair *et al*., 2010:21).

For the purposes of this study only three inferential statistical techniques were used. To analyse dependency the researcher used multi regression and for interdependence relationships, the researcher used factor analysis. Gupta (2007:343) asserts that multivariate techniques are quite empirical and they possess the ability to analyse complex data.

5.13.4.1 Multi-Regression Analysis

Multi-regression analysis is a descriptive and predictive tool used in developing self-weighting approximation equations by which to forecast values for dependent variables from the values of independent variables. It evaluates the contribution of other variables and tests, and explains a causal theory (Blumberg *et al*, 2011:497). Multi regression is an extension of bivariate linear regression as it incorporates multiple independent variables (predictors).This technique allows the marketing researcher to predict the behaviour of a dependent variable from two or more independent variables (Hair *et al*., 2003:600). Multiple linear regression technique is based on the assumptions of independence, linearity, and normality in data distribution (Cooper and Schindler, 2009; Blumberg *et al*., 2011; Saunders *et al*., 2009, 2012). This technique was chosen because the use of several independent variables to influence a single variable improves the predictive power of the technique if compared with linear regression.

5.13.4.2 Factor Analysis

Blumberg *et al*. (2011:343) define factor analysis as "a type of analysis used to determine the underlying dimensions of a set of data, to determine the underlying relationship among variables, and to condense and simplify a data set". Factor analysis is a multivariate statistical analysis that is used by the marketing researchers to reduce or summarise a considerable number of variables into smaller subsets or factors (Hair *et al*., 2003:601). In view of these definitions, it can be deduced that factor analysis is a data reduction method. Many businesses today suffer from the problems of multiple factors and this result in less informed decision making. Factor analysis is wholly reliant on correlations between variables and it again summarises the correlation structure. Hair *et al*. (2003:604) comment that factor analysis is quite useful in marketing research as it can enable researchers to identify characteristics of price-sensitive customers, as well as being able to identify brand attitudes that influence customer choice between traditional banks and mobile banking. Researchers are able to identify and even evaluate channel selection criteria by consumers. For example, the rural unbanked consumers may choose between traditional banking and mobile banking services. In view of these functions, factor analysis fits very well in analysing the influence of marketing mix variables on mobile banking adoption. Factor analysis is of two types: exploratory factor analysis and confirmatory factor analysis.

Exploratory factor analysis (EFA) is when there are no predetermined ideas about the structure or how many dimensions are in a set of variables. Confirmatory factor analysis is done when the marketing researcher wants to test specific hypotheses about the structure or the number of dimensions underlying a set of variables.

Factor analysis is based on the following assumptions: that measurement error has constant variance and is on average zero, there is no association between the factor and measurement error, there is no association between errors, and, given the factor, observed variables are independent of one another.

Factor analysis was used in this study in order to test the validity of the constructs in the questionnaire (Wiid and Digginer, 2013:241), and exploratory factor analysis was conducted to establish whether individual questions load on the same constructs in the questionnaire. Factor analysis was used to establish factorial validity which is significant when the researcher wants to determine the latent variables' validity (Gefen and Straub, 2005:91). Essentially, exploratory factor analysis was performed to assess the unidimensionality of the measurement items. Factor analysis is used to test the unidimensionality of items loading highly on a single factor (Gefen and Straub, 2005:92). Factor analysis assisted in this study to formulate summated scales by creating a combination of several individual variables or indicators into a single composite measure (Hair *et al*., 2010). Factor validity produced

construct validity by using statistical tools that worked with factor structures. However, factorial validity is significantly useful in first generation regression models in which the validity is normally examined using exploratory factor analysis (Gefen and Straub, 2005:92). This study solely considered exploratory factor analysis, although confirmatory factor analysis could have been used also. However, confirmatory factor analysis is beyond the scope of this current study.

5.14 ETHICS

Ethics is a term defined by Saunders *et al.* (2009:183) as 'the appropriateness of your behaviour in relation to the rights of those who become the subject of your work, or are affected by it". A different version by Cooper and Schindler (2008:34) reveals that "ethics are the norms or standards of behaviour that guide moral choices about our behaviour and our relationships with others". The major purpose of ethics is to ensure that participants are not harmed or adversely affected by the research activities (Cooper and Schindler, 2008:166).

Saunders *et al.* (2009:185-186) suggested the following ethical issues:

> *"privacy of possible and actual participants; voluntary nature of participation and the right to withdraw partially or completely from the process; consent and possible deception of participants; maintenance of the confidentiality of data provided by individuals or identifiable participants and their anonymity; reactions of participants to the way in which you seek to collect data, including embarrassment, stress, discomfort, pain and harm; effects on participants of the way in which you use, analyse and report your data, in particular the avoidance of embarrassment, stress, discomfort, pain and harm; behaviour and objectivity of you as researcher".*

In order to observe the above, the researcher acquired an ethical clearance for the questionnaire used in this study from the University of KwaZulu Natal's Research Office. Respondents were asked to sign the informed consent form before participating in the research process.

5.15 CHAPTER SUMMARY

This chapter revisited the main research question and hypotheses that were inadequately answered by review of related literature. Research design, the study approach and sampling procedure were addressed

and their use justified. The study made a critical review of methodological literature as applicable to mobile banking adoption. The data collection method used structured interviews in which questionnaires were used as research instruments. The chapter was able to highlight the need for quality control in the study to ensure that consistency in results would be realised. Since this study was purely more quantitative, statistical analysis was heavily adhered to in order to describe phenomenon and determine relationships between observed and latent variables. The chapter focused on univariate, bivariate, and multivariate techniques to analyse data in order to check on the consistency of the findings. As this study involved several constructs, advanced data analytical tools were deemed necessary. The next chapter presents the findings as discovered from the field survey.

CHAPTER 6

PRESENTATION OF RESULTS AND DATA ANALYSIS

6.1 INTRODUCTION

The major objective of data analysis is to ascertain the perceptions and views of the rural unbanked people in Masvingo on mobile banking adoption and possible use. This research has sought to establish the influence of marketing mix variables on attitude and behavioural intention to adopt mobile banking by the rural unbanked financial services consumers. It sought also to address why the rural unbanked people have been taking so long to adopt mobile banking, given the ubiquity of mobile phones in the rural areas in Zimbabwe and the success of mobile banking in other countries south of the Sahara. In order to analyse and present data at univariate, bivariate and multivariate levels, the researcher used the Statistical Package of Social Sciences (SPSS). At univariate level, descriptive statistics are used while the bivariate and multivariate methods are used to test the various hypotheses set in Chapter One. It is important to note that this study took a multidimensional approach by considering four financial product and service attributes, four price satisfaction dimensions, four distribution elements and three promotional elements. Taking a multidimensional approach resulted therefore in the creation of sub-hypotheses for each marketing mix element which were meant to address the problem(s) at hand. This section of the thesis answers the following research questions, set out originally in Chapter One.

6.2 RESEARH QUESTIONS

(1) Do financial product attributes have an effect on attitude to adopt mobile banking by the rural unbanked consumers?

(2) What is the impact of price satisfaction dimensions on attitude to adopt mobile banking by the rural unbanked consumers?

(3) Do distribution elements have an effect on attitude to adopt mobile banking by the rural unbanked consumers?

(4) What is the influence of promotional elements on attitude to adopt mobile banking by the rural unbanked consumers?

(5) Is there any relationship between attitude and behavioural intention to adopt mobile banking by the rural unbanked consumers?

6.3 UNIVARIATE DATA ANALYSIS

6.3.1 Response Rate

The study had a scientifically chosen sample size of 384 from Masvingo province. From this sample size, only 299 valid questionnaires from respondents were received producing a response rate of 77.9% which is sufficiently large for quantitative data analysis, as Sunders *et al.* (2009:346) indicate that a response rate of between 30% and 50% is regarded as enough to deliver and conduct a survey analysis. Such a response rate is not a surprise especially as the researcher administered the questionnaires.

Sekeran (2003) states that a response rate of 30% is acceptable for most descriptive surveys. A response rate of 65% is viewed as good for questionnaire surveys meant for descriptive analysis rather than for inferential analysis (Baruch and Holton, 2008). This research revealed a response rate of 78% - well above the 65%, meaning that both descriptive and inferential analyses can be performed. This review of literature implies that the response rate for this study was adequate. The following table shows response rate by district.

Table 6.1 Response rate by district

Name of District	Sample size	Responses	Response Rate (%)
Bikita	63	53	84
Chibi	64	47	73
Chiredzi	106	83	78
Masvingo rural	81	68	84
Zaka	70	48	69
Total	384	299	78%

6.3.2 Socio-Demographic Characteristics of the Respondents

This study considered analysis of the socio-demographic characteristics because the results assist the marketers and policy makers to segment markets according to income, sex, gender, marital status and work experience (Kotler and Keller, 2012:252).

Table 6.2 Descriptive Statistics of Socio-demographic variables

Description	Frequency	Percentage %
Gender		
Male	210	70.2%
Female	99	29.8%
Age		
18-–20	39	13.0%
21-–25	105	35.1%
26-–30	61	20.4%
31-–40	60	20.1%
41-–50	27	9.0%
Above 50	7	2.3%
Marital status		
Single	165	55.2%
Married	118	39.5%
Divorced	11	3.7%
Widowed	2	0.7%
Separated	3	1.0%
Level of education		
Grade 7	6	2.0%
ZJC	7	2.3%
Olevel	68	22.7%
Alevel	111	37.1%
Bachelors degree	99	33.1%
Postgrad	8	2.7%
Occupation		
Private sector	66	22.1%
NGO	36	12.0%
Self employed	89	29.8%
Not employed	108	36.1%
Level of income		
Below $100	133	44.5%
$100–$200	62	20.7%
$201–$400	47	15.7%
$401–$700	25	8.4%
Above $700	32	10.7%
Tribe		
Shona	208	69.5%
Ndebele	12	4.7%
Shangani	77	25.7%
Nationality		
Zimbabwean	295	98.7%
South African	4	1.3%

Table 6.2 shows that more males (70.2%) than females (29.8%) participated in this study. This shows that this study was more biased toward males since the researcher is a male who more easily approached males than females. Afar greater number respondents fell within the range of 18 to 40 years (88.7%), while 41 and above years accounted for only 11.3%. However, the dominant age group was the 21-25 years which constituted 35.1% of the age distribution. The average age is 29 years (mean=28.67; standard deviation=12.75 years; mode=23 years; median=28 years).

As revealed by the results in table 6.2, single people dominated this study (55.2%) followed by married rural unbanked consumers (39.5%). Divorced, widowed, and separated financial consumers accounted for 5.4% which was a marginal amount.

Since this study was rural based, the minimum level of education taken into consideration was grade seven. ZJC level contributed 4.3% in this study. Advanced level graduates dominated this study with 37.1% and were followed by the financial consumers possessing first degrees (33.1%). Rural unbanked consumers with O'level qualifications accounted for 22.7% while a paltry 2.7% pertained to postgraduates. This analysis implies that in general the survey involved better educated unbanked consumers.

A great chunk of the rural unbanked consumers were unemployed (36.1%) which correlates well with the level of income of below $100 constituting 44%. In addition, 22.1% of the respondents were privately employed, 12% were employed by no-governmental organisations while 29.8% were self- employed. The privately employed consumers were mainly people working in the sugarcane estates of the Lowveld and in shops at various growth points.

Table 6.2 shows results that suggest that a considerable number of the rural unbanked consumers who participated in this study were predominantly Shona (69.5%) followed by Shangani (25.7%) and a small 4.7% for Ndebele. The figure for Shangani is higher because the Chiredzi district had the highest rural population of 275 759 people compared to other visited districts.

Lastly, most people who responded to the questionnaire were of Zimbabwean origin (98.7%) with a few South Africans (1.3%), and 0% was recorded for Mozambican origin.

6.4 RELIABILITY ANALYSIS

Table 6.3 Construct Reliability

Construct	Dimension and number of items	Cronbach's Alpha Index
Financial product/service	Perceived usefulness (3)	0.741
	Perceived ease of use (3)	0.825
	Trialability (3)	0.669
	Accuracy (3)	0.695
Price	Price Transparency (4)	0.851
	Price/Quality ratio (5)	0.837
	Perceived Cost (3)	0.811
	Price reliability	0.800
Distribution	Trust (3)	0.703
	Network Coverage (2)	0.796
	Service Convenience (4)	0.747
	Distribution dependability (4)	0.650
Promotion	Advertising (4)	0.751
	Personal Selling (3)	0.725
	Financial Education (3)	0.610
Attitude	Attitude (3)	0.862
Behavioural Intention	Behavioural Intention (3)	0.794
Overall reliability	**56 Items**	**0.932**

Source: Results prepared by the researcher from SPSS output.

Cronbach alpha index was used to determine whether the instrument used in this study was reliable and whether the data could be used for further analysis (Zickmund and Babin, 2007:308; Sunders *et al.*, 2009:374; Hair *et al.*, 2010). In addition, Nunally (1967) recommends that further statistical analysis can be done provided Cronbach α index test is passed. Hair *et al.* (2010) state that an acceptable Cronbach α

index should be equal to 0.7 and Nunally (1967) concurs with Hair and others but suggest that values slightly below 0.7 are sometimes acceptable. Cronbach scales with index values between 0.8 and 0.95 (high reliability), between 07 and 0.8 (good reliability), between 0.6 and 0.7 (fair reliability) and below 0.6 (poor reliability) (Zikmund *et al.*, 2010:306). The results in Table 6.2 indicate that 12 dimensions had Cronbach alpha indexes above 0.7 and three slightly below 0.7 but higher than 0.6 (Bagozzi and Yi, 1988:82). In this regard, the instrument used had good reliability.The reported overall reliability for the 56 items was 0.932 much above 0.7.

6.5 DESCRIPTIVE ANALYSIS

The following descriptive data was analysed after having carried out an exploratory factor analysis. In this regard results reported under the exploratory factor analysis help to explain why some variables in the questionnaires are not available in this section of the analysis.

Table 6.4 Descriptive statistics on financial product attributes on adoption of mobile banking

Descriptive Statistics

Description	N	Mean	Std. Deviation
PU1 Usefulness of mobile banking in daily life.	299	4.2174	.98456
PU2 Mobile banking improvement of banking experience.	299	4.0000	.96586
PU3 Convenience of mobile banking.	299	4.2107	.93358
PEOU2Mobile banking interaction is clear and understandable.	299	3.9298	.97196
PEOU1 Mobile banking is easy to learn.	299	3.9732	1.06466
PEOU3 Mobile banking is easy to use	299	4.0870	.93719
TRI1Proper trial of mobile banking.	299	3.5284	1.13591
TRI2Mobile banking availability for adequate trial.	299	3.6488	1.00690
TRI3 Permission to trial mobile banking long enough.	299	3.3579	1.19662
ACC1 Mobile banking operations are accurate and specific to my request.	299	4.0234	.86861
ACC2 Mobile banking more accurate than traditional banking.	299	3.8696	1.03611
ACC3 Transactions with mobile banking do better.	299	4.0000	.94833
Valid N (list wise)	299		

Source: SPSS output

Table 6.4 shown above indicates item PU1 "Perceived usefulness of mobile banking in the respondent's daily life" was significant to respondents as it attained the highest rating (M=4.271, SD=0.98456).

147

Respondents placed the lowest ranking on item TRI3 a component of trialability "Permission to try mobile banking is enough before actual use" as it acquired (M=3.3579; SD=1.19662) and this implies that the least importance was placed on this item of trialability of mobile banking. However, the grand mean ± SD stood at 3.90385±1.0042 (agree) out of a possible 5 (strongly agree). Additionally, the overall scale mean ± SD was 46.8462 ±10.8537 out of a possible score of 60 and this reflects a high level of agreement about the influence of product attributes on adoption of mobile banking in Masvingo Province.

Table 6.5 Descriptive statistics on price satisfaction dimensions and mobile banking adoption

Descriptive Statistics

	N	Mean	Std. Deviation
PR1 Prices changes communicated properly	299	3.2575	1.24401
PR2 Prices changes timely communicated	299	3.4515	1.12334
PR3 No hidden costs	299	3.1706	1.27219
PR4 Prices and conditions do not change unexpectedly	299	3.3077	1.22843
PT1 Price components are clear and comprehensible	299	3.4214	1.13944
PT2 Price information and is complete, correct and frank	299	3.3712	1.07096
PT3 Price information is understandable and comprehensible	299	3.5318	1.03374
PT4 Proper information about prices mobile banking.	299	3.5017	1.07870
PT5 I know what I pay and get.	299	3.8261	1.05703
PQ1 Price and quality meet my needs.	299	3.6254	1.03956
PQ2 Fairness of prices	299	3.4716	1.09377
PQ3 I know what I will be paying for.	299	3.6622	1.04734
PQ4Prices paid depend on used services.	299	3.7926	1.00526
PC1 Mobile banking transactions are cheaper.	299	3.6756	1.11055
PC2 Charged prices seem affordable for rural people.	299	3.5151	1.20218
PC3 Mobile banking offers better prices.	299	3.7926	1.08860
Valid N (list wise)	299		

Source: SPSS output

A total of sixteen items were used to measure the influence of price satisfaction dimensions on adoption of mobile banking and the mean scores and standard deviations are as indicated in the Table 6.5 above. Items PQ4 and PC3 had the same mean scores but different standard deviations. Respondents placed more significance on PQ4 "Prices paid depend on the services used" as it obtained a rating (M=3.7926; SD=1.00526) with PC3 item "Mobile banking offer better prices" attaining a rating (M=3.7926; SD=1.08860). However, their standard deviations differ by 0.08334. Item PR3 "No hidden costs" had the least rating scoring (M=3.1706; SD=1.2719) and as this value is much closer to 3 (neutral) it therefore

implies that respondents had a neutral attitude towards mobile banking adoption based on this attribute of price reliability. The grand mean ± SD was 3.5783±1.0827 (agree - as it is close to rating 4) out of a total scale of 5 (strongly agree). The overall scale mean± SD was 39.3613±8.60593 out of a possible scale of 55 and this indicates that respondents agreed that price satisfaction dimensions had an impact on mobile banking adoption.

Table 6.6 Descriptive statistics on distribution elements on adoption of mobile banking

Descriptive Statistics	N	Mean	Std. Deviation
T1 Trust in mobile banking agents.	299	3.6388	1.09451
T2 Trust mobile banking when others are using it.	299	3.5987	1.03600
T3 In mobile banking my information is kept safe	299	3.9064	1.02220
NC1 No difficulty in getting connected to banks.	299	3.0836	1.24095
NC2 Operations through mobile banking are complete.	299	3.0669	1.21879
NC3 Mobile banking is prone to signal failures and congestion.	299	3.2876	1.33520
DD1 Mobile banking is a more reliable channel than traditional banking.	299	3.4849	1.18532
DD2 The channel is always available in my area.	299	3.6288	1.08032
DD3 Mobile banking is a safe channel for financial services.	299	3.8194	.94877
SC1 Mobile banking is easy to contact the service provider.	299	3.6221	1.09037
SC2 Mobile banking would not take time to reach the service provider.	299	3.6722	1.01313
SC3 I am able to contact service provider quickly.	299	3.6321	1.08611
Valid N (list wise)	299		

Source: SPSS output

Results from Table 6.6 reveal that item T3 "In mobile banking my information is kept safe" had the highest rating (M=3.9064; SD=1.0222) meaning that they would adopt mobile banking as their private information is kept safe. A component of network coverage NC2 had the least rating (M=3.0669; SD=1.21879) meaning that little importance was placed on this item. This result reveals that respondents had a neutral attitude formation towards adoption of mobile banking. The overall mean ± SD stood at 3.5388±1.0980 (agree) out of a total score of 5 (strongly agree). In addition the overall scale mean ± SD was 31.8492±7.4222 out of a possible scale of 45 thus implying that they agreed that distribution elements had an effect on adoption of mobile banking in Masvingo province.

Table 6.7 Descriptive statistics on promotional elements on adoption of mobile banking

Descriptive Statistics

	N	Mean	Std. Deviation
AD1 Adverts available create mobile banking awareness.	299	3.8395	1.00718
AD2 Adverts have effect on you when adopting mobile banking.	299	3.7291	1.01838
AD3 Adverts change my opinions and prejudices of mobile banking.	299	3.7692	.93600
AD4 The Adverts are visually appealing.	299	3.7860	.87144
PS1 Sales people demonstrate convincingly how to use mobile banking.	299	3.4582	1.12660
PS2 Sales people educate us about mobile banking.	299	3.6622	1.10654
PS3 Network agents provide us useful information about mobile banking.	299	3.7826	1.01477
FE1 Financial education increases my skills to use MB	299	3.9967	.87661
FE2 Financial training is important for rural people	299	3.9565	1.06569
FE3 Government should support the training programmes.	299	4.1338	.94594
Valid N (list wise)	299		

Source: SPSS output

As illustrated by Table 6.7, item F3 from financial education construct "Government should support financial education training programmes", received the highest rating (M=4.1338; SD=0.94594). This reflects that respondents wanted the Zimbabwean government to support financial education programmes in the rural areas of Masvingo province. Item PS1 of personal selling construct "Sales people will convincingly demonstrate how to use mobile banking" had the lowest rating (M=3.4582; SD=1.1266). Respondents were almost neutral in their feelings towards mobile banking adoption. In addition, the grand mean ± SD stood at 3.8114±0.9969 (agree) out of a possible score of 5 (strongly agree). The overall scale mean ± SD was 38.114±8.8426 out of a possible 50 indicating that respondents were in agreement that promotional tools influenced them to adopt mobile banking.

Table 6.8 Descriptive statistics on attitude on adoption of mobile banking

Descriptive Statistics

	N	Mean	Std. Deviation
ATT1Positive liking of technology.	299	4.1070	1.05959
ATT2 Loving of new technology.	299	4.4080	.95225
ATT3 Mobile banking is a wise idea.	299	4.3378	1.00816
Valid N (list wise)	299		

Source: SPSS output

Results in Table 6.8 reveal that indicator ATT1 of attitude construct, a dependent variable, "Positive liking of technology" had the least rating (M=4.107; SD=1.05959) compared to the other items. However, item ATT2 "Loving of new technology" had the highest rating (Mean=4.408; SD=0.95225). This indicates that respondents were very interested in new technologies. The grand mean ± SD was 4.2843±1.0067 (agree) out of a total possible score of 5 (strongly agree). The overall scale mean ± SD was 12.8529±3.0201 out of a possible scale of 15 reflecting that respondents had a positive attitude towards mobile banking.

Table 6.9 Descriptive statistics on behavioural intention on adoption of mobile banking

Descriptive Statistics

	N	Mean	Std. Deviation
BI 1 Mobile banking use in the future.	299	4.4181	.94610
BI 2 Will always use mobile banking in my life.	299	4.3043	.86951
BI 3 Will continue to frequently use mobile banking.	299	4.3813	.79540
Valid N (list wise)	299		

Source: SPSS output

Statistics about behavioural intention to adopt mobile banking are as shown in Table 6.9. Item BI1 "Mobile banking use in the future" had the highest rating (Mean=4.4181; SD=0.9461). This indicates that given the chance to use mobile banking, rural unbanked people will continue to use it given its benefits. BI 2 "Will always use mobile banking in my life" had the least rating among other indicators for behavioural intention construct with a rating (Mean=4.3043; SD=0.86951). The grand mean ± SD was 4.3679±0.8703 (agree) out of a possible score of 5 (strongly agree). However, the overall scale mean ±

SD stood at 13.1037±2.611 out of a possible 15 significantly indicating that respondents had strong behavioural intention to adopt mobile banking in Masvingo province.

6.6. INDEPENDENT t-TEST and ANALYSIS OF VARIANCE (ANOVA) AMONG VARIABLES

ANOVA was used to analyse the variance that existed between different samples using the socio-demographic categorical data and the marketing mix constructs. The impact of socio-demographic features on the marketing mix elements was considered as these features from a consumer behaviour point of view can assist marketers in market segmentation, market targeting, and market positioning (STP) (Kotler and Keller, 2012:240). One way ANOVA was used to test the statistical differences between three or more means. F ratio is used to evaluate the differences between group means and if the *F* ratio in big it indicates that there will be a vast difference in the variance between groups (Hair *et al*., 2003:545).

6.6.1 The Effect of Socio-Demographic Variables on Product Attributes

An independent *t*-Test was done to determine gender differences on product attributes of mobile banking services and the results depict the group mean rating for males (M=3.908, SD=0.565) and females (M=3.893, SD=0.555). The differences between males and females in product attributes of mobile banking services are not statistically significant (F=0.494, t=0.212, df=297, p>0.05) at 5% significance level. Both the male and female unbanked consumers share similar perceptions regarding the product attributes of mobile banking service.

Table 6.10 One way ANOVA: Mean differences of gender, age, marital status, level of education, occupation, level of income, tribe, and nationality on product attributes.

		Sum of Squares	Df	Mean Square	F	Sig.
Gender Distribution	Between Groups	6.444	35	.190	.892	.643
	Within Groups	56.065	264	.212		
	Total	62.508	299			
Age distribution	Between Groups	79.813	35	2.347	1.532	.035
	Within Groups	404.481	264	1.532		
	Total	484.294	299			
Marital status	Between Groups	16.928	35	.498	1.030	.428
	Within Groups	127.580	264	.483		
	Total	144.508	299			
Level of Education	Between Groups	34.918	35	1.027	1.105	.323
	Within Groups	245.329	264	.929		
	Total	280.247	299			
Occupation	Between Groups	43.731	35	1.286	.964	.530
	Within Groups	352.229	264	1.334		
	Total	395.960	299			
Level of income	Between Groups	72.202	35	2.124	1.159	.258
	Within Groups	483.757	264	1.832		
	Total	555.960	299			
Tribe	Between Groups	3.104	35	.091	.664	.924
	Within Groups	36.274	264	.137		
	Total	39.378	299			
Nationality	Between Groups	1.145	35	.034	3.173	.000
	Within Groups	2.802	264	.011		
	Total	3.946	299			

A one way ANOVA test was done on product attributes to determine if there were statistically significant differences in means due to socio-demographic variables. The results in Table 6.10 show that there are statistically significant differences in product attributes due to age distribution (F=1.532, $p<0.05$) and nationality (F=3.173, $p<0.05$). However, no significant differences on product attributes were recorded due to other socio-demographic variables.

6.6.2 The Impact of Socio-Demographic Variables on Price Satisfaction Dimensions

The results from the independent *t*-Test to ascertain gender differences on price satisfaction dimensions of mobile banking services reveal that the means ratings for females were (M=4.303, SD=0.8559) and for males (M=4.325 SD=0.888). At 5% significance level, the variances between female and male rural unbanked consumers in price satisfaction dimensions show statistically insignificant values (*F*=0.494, *t*=0.197, df=297, *p*>0.05). Hence, male and female rural unbanked consumers have the same opinions with regards to the influence of price satisfaction dimensions.

Table 6.11 One way ANOVA: Mean differences of gender, age, marital status, level of education, occupation, level of income, tribe, and nationality on price satisfaction dimensions.

		Sum of Squares	Df	Mean Square	F	Sig.
Gender Distribution	Between Groups	9.024	37	.251	1.228	.184
	Within Groups	53.484	262	.204		
	Total	62.508	299			
Age distribution	Between Groups	99.751	37	2.771	1.888	.003
	Within Groups	384.543	262	1.468		
	Total	484.294	299			
Marital status	Between Groups	25.394	37	.705	1.552	.028
	Within Groups	119.114	262	.455		
	Total	144.508	299			
Level of Education	Between Groups	58.001	37	1.611	1.899	.002
	Within Groups	222.247	262	.848		
	Total	280.247	299			
Occupation	Between Groups	35.267	37	.980	.712	.891
	Within Groups	360.693	262	1.377		
	Total	395.960	299			
Level of income	Between Groups	96.226	37	2.673	1.523	.034
	Within Groups	459.734	262	1.755		
	Total	555.960	299			
Tribe	Between Groups	6.281	37	.174	1.381	.081
	Within Groups	33.097	262	.126		
	Total	39.378	299			
Nationality	Between Groups	.462	37	.013	.964	.532
	Within Groups	3.485	262	.013		
	Total	3.946	299			

One way ANOVA was performed to test whether there were significant differences in the price satisfaction dimensions attributable to the demographic characteristics. Table 6.11 testifies that there were statistically significant differences in price satisfaction dimensions due to age distribution (F=1.888, $p<0.05$), marital status (F=1.552, $p<0.05$), level of education (F=1.899, $p<0.05$), and level of income (F=1.523, $p<0.05$). However, no significant differences are recorded for occupation, gender, tribe and nationality.

6.6.3 The Influence of Socio-Demographic Variables on Distribution Elements

An independent *t*-Test was performed to establish gender dissimilarities on the distribution elements of mobile banking services and the results show that the means ratings were for females (M=3.544, SD=0.652) and males (M=3.537, SD=0.708). At 5% significant level, the contrasts between female and male rural unbanked consumers in distribution elements are not statistically significant (F=0.165, t=-0.089, df=297, $p>0.05$). Therefore their perceptions regarding the influence of distribution elements are quite similar.

Table 6.12 One way ANOVA: Mean differences of gender, age, marital status, level of education, occupation, level of income, tribe, and nationality on distribution elements.

		Sum of Squares	Df	Mean Square	F	Sig.
Gender Distribution	Between Groups	5.647	32	.182	.855	.691
	Within Groups	56.861	267	.213		
	Total	62.508	299			
Age distribution	Between Groups	74.308	32	2.397	1.561	.034
	Within Groups	409.986	267	1.536		
	Total	484.294	299			
Marital status	Between Groups	15.146	32	.489	1.008	.459
	Within Groups	129.362	267	.485		
	Total	144.508	299			
Level of Education	Between Groups	28.834	32	.930	.988	.490
	Within Groups	251.414	267	.942		
	Total	280.247	299			
Occupation	Between Groups	42.860	32	1.383	1.045	.406
	Within Groups	353.100	267	1.322		
	Total	395.960	299			
Level of income	Between Groups	55.863	32	1.802	.962	.529
	Within Groups	500.097	267	1.873		
	Total	555.960	299			
Tribe	Between Groups	1.826	32	.059	.419	.998
	Within Groups	37.552	267	.141		
	Total	39.378	299			
Nationality	Between Groups	.198	32	.006	.456	.995
	Within Groups	3.748	267	.014		
	Total	3.946	299			

Source: SPSS output

The results in Table 6.12 reveal that statistically significant differences between means on distribution elements are recorded due to age distribution ($F=1.561$, $p<0.05$). However, the rest of the socio-demographic variables had no significant differences recorded as the F-ratios were small associated with big probabilities.

6.6.4 The Impact of Socio-Demographic Variables on Promotional Tools

Independent t-Test of gender differences regarding promotional tools on mobile banking services revealed that the means ratings were for females (M=3.862, SD=0.580) and males (M=3.790, SD=0.565). The

distinctions between female and male rural unbanked consumers in promotional tools are, at 5% significance level, not statistically significant (F=0.006, t= -0.996, df=297, p>0.05). These results therefore imply that the perceptions of females on mobile banking promotional activities were not significantly different from the perceptions of males.

Table 6.13 One way ANOVA: Mean differences of gender, age, marital status, level of education, occupation, level of income, tribe, and nationality on promotional tools.

		Sum of Squares	Df	Mean Square	F	Sig.
Gender Distribution	Between Groups	3.580	28	.133	.610	.938
	Within Groups	58.928	271	.217		
	Total	62.508	299			
Age distribution	Between Groups	60.147	28	2.228	1.423	.085
	Within Groups	424.147	271	1.565		
	Total	484.294	299			
Marital status	Between Groups	9.728	28	.360	.724	.841
	Within Groups	134.781	271	.497		
	Total	144.508	299			
Level of Education	Between Groups	37.643	28	1.394	1.557	.043
	Within Groups	242.604	271	.895		
	Total	280.247	299			
Occupation	Between Groups	45.813	28	1.697	1.313	.143
	Within Groups	350.147	271	1.292		
	Total	395.960	299			
Level of income	Between Groups	72.460	28	2.684	1.504	.056
	Within Groups	483.500	271	1.784		
	Total	555.960	299			
Tribe	Between Groups	4.664	28	.173	1.348	.122
	Within Groups	34.714	271	.128		
	Total	39.378	299			
Nationality	Between Groups	.306	28	.011	.843	.693
	Within Groups	3.641	271	.013		
	Total	3.946	299			

Source: SPSS output

The results from Table 6.13 on the one way ANOVA test indicate that there is only one significant difference in means on promotional tools attributed to the level of education (F=1.557, p<0.05). No

significant differences on promotion of mobile banking to the rural unbanked consumers were recorded due to the remaining socio-demographic factors.

6.6.5 The Effect of Socio-Demographic Variables on Attitude Toward Mobile Banking

An independent *t*-Test was used to ascertain if there were statistically significant gender differences on attitudes toward mobile banking services and the results reveal that the means ratings were for males (M=4.306, SD=0.889) and females (M=4.232, SD=0.900). The differences between male and female rural unbanked consumers in attitude toward mobile banking services at 5% significance level were not statistically significant (*F*=0.330, *t*=0.657, df=297, *p*>0.05). These results mean that the attitudes of the male and female rural unbanked consumers are similar.

Table 6.14 One way ANOVA: Mean differences of gender, age, marital status, level of education, occupation, level of income, tribe, and nationality on attitude

		Sum of Squares	Df	Mean Square	F	Sig.
Gender Distribution	Between Groups	2.216	13	.185	.876	.572
	Within Groups	60.292	286	.211		
	Total	62.508	299			
Age distribution	Between Groups	15.901	13	1.325	.809	.641
	Within Groups	468.394	286	1.638		
	Total	484.294	299			
Marital status	Between Groups	7.802	13	.650	1.360	.185
	Within Groups	136.707	286	.478		
	Total	144.508	299			
Level of Education	Between Groups	11.069	13	.922	.980	.468
	Within Groups	269.178	286	.941		
	Total	280.247	299			
Occupation	Between Groups	19.481	13	1.623	1.233	.259
	Within Groups	376.479	286	1.316		
	Total	395.960	299			
Level of income	Between Groups	32.375	13	2.698	1.474	.133
	Within Groups	523.585	286	1.831		
	Total	555.960	299			
Tribe	Between Groups	2.360	13	.197	1.520	.116
	Within Groups	37.018	286	.129		
	Total	39.378	299			
Nationality	Between Groups	.104	13	.009	.646	.802
	Within Groups	3.842	286	.013		
	Total	3.946	299			

Source: SPSS output

In Table 6.14 it can be observed that there are no significant differences on consumer attitude toward mobile banking adoption that may be accounted for by the above socio-demographic features of the rural unbanked consumers in Masvingo province, as all he F-ratios are quite small ranging from between 0.648 to 1.520 while the associated p values are all greater than 0.05.

6.6.6 The Influence of Socio-Demographic Variables on Behavioural Intention

The results from the independent t-Test to establish whether there are statistically significant gender differences on behavioural intention to adopt mobile banking services show that the means ratings were

159

for males (4.344, SD=0.729) and females (M=4.423, SD=0.747). These results reveal that the contrasts between male and female rural unbanked consumers on behavioural intention to adopt mobile banking services at 5% significant level were not statistically significant (F=0.069, t=-0.848, df=297, p>0.05). These results imply that both male and female rural unbanked consumer had similar perceptions about behavioural intention to adopt a mobile banking service.

Table 6.15 One way ANOVA: Mean differences of gender, age, marital status, level of education, occupation, level of income, tribe, and nationality on behavioural intention.

		Sum of Squares	Df	Mean Square	F	Sig.
Gender Distribution	Between Groups	1.999	11	.182	.862	.578
	Within Groups	60.509	287	.211		
	Total	62.508	298			
Age distribution	Between Groups	26.530	11	2.412	1.512	.126
	Within Groups	457.764	287	1.595		
	Total	484.294	298			
Marital status	Between Groups	4.849	11	.441	.906	.535
	Within Groups	139.659	287	.487		
	Total	144.508	298			
Level of Education	Between Groups	8.334	11	.758	.800	.640
	Within Groups	271.913	287	.947		
	Total	280.247	298			
Occupation	Between Groups	20.072	11	1.825	1.393	.175
	Within Groups	375.888	287	1.310		
	Total	395.960	298			
Level of income	Between Groups	21.998	11	2.000	1.075	.381
	Within Groups	533.962	287	1.860		
	Total	555.960	298			
Tribe	Between Groups	3.596	11	.327	2.622	.003
	Within Groups	35.782	287	.125		
	Total	39.378	298			
Nationality	Between Groups	.232	11	.021	1.629	.090
	Within Groups	3.715	287	.013		
	Total	3.946	298			

Source: SPSS output

An ANOVA test was performed to analyse if there existed differences that are significant on behavioural intention to adopt mobile banking attributable to socio-demographic factors and these results are presented in Table 6.15. There was a significant statistical difference on behavioural intention toward mobile banking adoption due to tribe ($F=2.622$, $p<0.05$). Unfortunately, the rest of the socio-demographic variables do not show significant differences as p values are all greater than 0.05 and associated with F-ratios ranging from 0.800 to a high of 1.629.

Table 6.16 One way ANOVA: Mean differences of gender, age, marital status, level of education, occupation, level of income, tribe, and nationality on mobile money usage.

ANOVA

		Sum of Squares	Df	Mean Square	F	Sig.
Gender Distribution	Between Groups	2.227	1	2.227	10.972	.001
	Within Groups	60.281	297	.203		
	Total	62.508	298			
Age distribution	Between Groups	10.283	1	10.283	6.443	.012
	Within Groups	474.011	297	1.596		
	Total	484.294	298			
Marital status	Between Groups	.137	1	.137	.282	.595
	Within Groups	144.371	297	.486		
	Total	144.508	298			
Level of Education	Between Groups	12.704	1	12.704	14.103	.000
	Within Groups	267.544	297	.901		
	Total	280.247	298			
Occupation	Between Groups	.333	1	.333	.250	.618
	Within Groups	395.627	297	1.332		
	Total	395.960	298			
Level of income	Between Groups	2.187	1	2.187	1.173	.280
	Within Groups	553.773	297	1.865		
	Total	555.960	298			
Tribe	Between Groups	.000	1	.000	.001	.981
	Within Groups	39.378	297	.133		
	Total	39.378	298			
Nationality	Between Groups	.002	1	.002	.131	.718
	Within Groups	3.945	297	.013		
	Total	3.946	298			

Source: SPSS output

A one way ANOVA test was performed to establish if there are significant mobile money usage differences attributable to gender, age, marital status, level of education, occupation, the level of income, tribe, and nationality. The results in Table 6.16 reveal that there were significant differences on mobile banking usage attributable to gender ($F=10.972$, $p=0.001$), age distribution ($F=6.443$, $p=0.012$), and level of education ($F=14.103$, $p=0.000$). However, the results exhibited that there were no statistically significant differences due to marital status, level of income, occupation, tribe and nationality as the F-ratios were not large enough - between 0.001 and 1.173 and their p values were greater than 0.05.

6.7 BIVARIATE CORRELATION ANALYSIS

Since the data used for this study was interval data, Pearson correlation was selected to assess the strength of relationships between variables at bivariate level (Field, 2012:274). Pearson's correlation matrix shows the direction, significance and power or strength of bivariate behaviour among variables. A correlation between ±0.1 and ±0.29 is indicative of a weak correlation, a value between ±0.3 and ±0.49 reveals moderate correlation coefficients, while coefficients falling between ±0.5 and ±1 are considered strong correlations (Wong and Hiew, 2005:265). The analysis was based on the specific research objective and the research question.

6.7.1 Association Between Socio-Demographic Variables and the Marketing Mix Elements

Table 6.17 Pearson correlation matrix between demographic variables and constructs

	Descriptions: Variables	Gender Distribution	Age distribution	Marital status	Level of Education	Occupation	Level of income
Kendall's tau_b	Gender Distribution	1.000					
	Age distribution	-.164**					
	Marital status	-.052	.499**				
	Level of Education	-.123*	-.007	-.271**			
	Occupation	.162**	-.261**	-.247**	.015		
	Level of income	-.228**	.395**	.355**	.094	-.471**	
	Product attributes	-.001	.107*	.129**	-.047	-.033	.049
	Price satisfaction dimensions	.003	.093*	.126**	-.079	-.009	-.009
	Distribution elements	.009	.154**	.154**	-.114*	-.080	.029
	Promotional tools	.058	.069	.038	.026	-.010	-.039
	Attitude	-.043	.052	.010	.057	.026	-.037
	Behavioural intention	.059	.080	.094	-.032	-.015	-.006

Table 6.17 on correlation matrix indicates that when assessed on their own, socio-demographic variables negatively and positively correlated. However, of great importnace is to interpret the correlations between the socio-demographic variables and the marketing mix elements. The results from Table 6.17 indicate that product attributes correlated weakly with age (r=0.107, $p <$ 0.05). In addition, product attributes correlated with marital status (r=0.126, $p <$0.01). Price satisfaction dimensions statistically and significantlty correlate with age (r=0.093, $p <$0.05) and marital status (r=0.126, $p <$ 0.01). The results in Table 6.17 show that there is a statistically significant positive relationship between distribution elements and age (r=0.154, $p <$0.01) and marital status (r=0.156, $p <$0.01). However, a significant negative relationship exists between distribution elements and education (r= -0,114, $p <$ 0.05). Moreover, there are no statistically significant relationships between socio-demographic variables and attitude toward mobile

banking, behavioural intention toward mobile banking, and promotional tools. This is evidence that in some markets, segmentation based on behavioural variables may not be useful.

6.7.2 Research Objective 1 and Question 1

6.7.2.1 Impact of Financial Product Attributes on Attitude to Adopt Mobile Banking

The following table considered the relationships that exist among the independent financial product attributes namely perceived usefulness, perceived ease of use, trialability, and accuracy of mobile banking and the dependent variable attitude.

Table 6.18 Pearson Correlation matrix between financial product attributes and attitude

Correlations		ATT	PU	PEOU	TRI	ACC
ATT	Pearson Correlation	1	.323**	.574**	.188**	.297**
	Sig. (2-tailed)		.000	.000	.001	.000
	N	299	299	299	299	299
PU	Pearson Correlation	.323**	1	.445**	.249**	.413**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	299	299	299	299	299
PEOU	Pearson Correlation	.574**	.445**	1	.255**	.253**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	299	299	299	299	299
TRI	Pearson Correlation	.188**	.249**	.255**	1	.204**
	Sig. (2-tailed)	.001	.000	.000		.000
	N	299	299	299	299	299
ACC	Pearson Correlation	.297**	.413**	.253**	.204**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	299	299	299	299	299

. Correlation is significant at the 0.01 level (2-tailed).

Source: SPSS output. ATT=Attitude, PU=Perceived usefulness, PEOU=Perceived ease of use, TRI=Trialability, ACC=Accuracy.

The American Psychological Association convention indicates that there should be no zero before the decimal point for both the correlation coefficient and the probability values (Field, 2012:288).

The correlation between usefulness and attitude to adopt mobile banking has a p value of 0.000 which is significantly less than 0.01. This result shows that there is a statistically significant correlation between

perceived usefulness and attitude and it is positive since Pearson's product correlation coefficient r=0.323. Although it is a medium relationship, this shows that the rural unbanked consumers believe that perceived usefulness is important when adopting mobile banking.

The correlation between perceived ease of use and attitude was run and the p value was 0.000 which was less 0.01 and the r value is 0.574. This result reflects a statistically significant correlation between perceived ease of use and attitude to adopt mobile banking. The correlation is stronger than between perceived usefulness and attitude. This is an indication that the rural unbanked people valued significantly the complexity of mobile banking. It means therefore that if mobile banking was relatively easy to use, they would definitely adopt mobile banking.

Trialability correlated positively and significantly with attitude to adopt mobile banking since r=0.188 and p=0.001 which is below 0.01. However, the unbanked consumers believed that trialability could not strongly influence them to adopt mobile banking since the correlation falls within the weak range according to the rule of thumb above.

The results in the table above indicate that accuracy was significantly related to attitude to adopt mobile banking, r=0.297 and p=0.000 which is below 0.01. Although the correlation was moderate, this result suggests that rural unbanked consumers considered the accuracy of mobile banking to be significant and would convince them to adopt it. The rest of the financial product attributes correlated moderately to strongly with each other.

6.7.3 Research Objective 2 and Question 2

6.7.3.1 Impact of Price Satisfaction Dimension on Attitude Toward Mobile Banking

Table 6.19 Pearson correlation matrix between price satisfaction dimensions and attitude

		ATT	PT	PQ	PC	PR
				Correlations matrix		
		ATT	PT	PQ	PC	PR
ATT	Pearson Correlation	1	.105	.227**	.178**	.141*
	Sig. (2-tailed)		.070	.000	.002	.014
	N	299	299	299	299	299
PT	Pearson Correlation	.105	1	.564**	.468**	.562**
	Sig. (2-tailed)	.070		.000	.000	.000
	N	299	299	299	299	299
PQ	Pearson Correlation	.227**	.564**	1	.536**	.459**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	299	299	299	299	299
PC	Pearson Correlation	.178**	.468**	.536**	1	.357**
	Sig. (2-tailed)	.002	.000	.000		.000
	N	299	299	299	299	299
PR	Pearson Correlation	.141*	.562**	.459**	.357**	1
	Sig. (2-tailed)	.014	.000	.000	.000	
	N	299	299	299	299	299

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).Source: SPSS output. ATT=Attitude, PT=Price transparency, PQ=Price quality ratio, PC=Perceived cost, PR=Price reliability.

Results from table 6.19 reveal that there was no significant relationship between price transparency and attitude to adopt mobile banking in Masvingo province, $r=0.105$ and $p=0.07$ which is greater than .05. The rural unbanked consumers did not value price transparency when adopting mobile banking. The correlation between price quality ratio and attitude to adopt mobile banking was run and results show that a statistically significant relationship existed between the two variables, $r=0.227$ and $p=0.000$ which is below 0.05. Although it is a slightly weak relationship, this result is indicative of the fact that rural unbanked consumers rated highly the price quality ratio when they selected to adopt mobile banking amongst the price satisfaction dimensions. Therefore, if quality was better matched with the price, rural unbanked consumers were prepared to adopt mobile banking.

The correlation between perceived cost and attitude has a p value of 0.002, which is below 0.05. This finding reveals that there is a statistically significant and positive relationship between perceived cost and

attitude to adopt mobile banking. This result suggests that the lower the perceived cost of mobile banking, the more the rural unbanked would be prepared to adopt mobile banking.

Price reliability was significantly and positively related to attitude towards mobile banking adoption, $r=0.148$ and $p=0.014$ which is less than 0.05. Although it is a weak relationship, it still means that the rural unbanked consumers valued price reliability more than they did price transparency when intending to adopt mobile banking. In overall, the rest of price satisfaction dimensions significantly and positively correlated with each other.

6.7.4 Research Objective 3 and Question 3

6.7.4 Impact of Distribution Elements on Attitude Toward Mobile Banking Adoption

Table 6.20 Pearson's correlation matrix between distribution elements and attitude

Correlations matrix

		ATT	T	NC	SC	DD
ATT	Pearson Correlation	1	.249**	.058	.150**	.343**
	Sig. (2-tailed)		.000	.318	.010	.000
	N	299	299	299	299	299
T	Pearson Correlation	.249**	1	.405**	.446**	.437**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	299	299	299	299	299
NC	Pearson Correlation	.058	.405**	1	.366**	.325**
	Sig. (2-tailed)	.318	.000		.000	.000
	N	299	299	299	299	299
SC	Pearson Correlation	.150**	.446**	.366**	1	.637**
	Sig. (2-tailed)	.010	.000	.000		.000
	N	299	299	299	299	299
DD	Pearson Correlation	.343**	.437**	.325**	.637**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	299	299	299	299	299

**. Correlation is significant at the 0.01 level (2-tailed).Source: SPSS output.
ATT=attitude, T=Trust, NC=Network coverage, SC=Service convenience,
DD=Distribution dependability.

There was a statistically significant relationship between trust of mobile banking and attitude to adopt mobile banking, $r=0.249$ and $p=0.000$ which is below 0.01. This result suggests that the rural unbanked consumers have a strong trust of mobile banking. However, trusting a new technology that you have never used is often a difficult situation.

Network coverage and attitude were correlated, $r=.058$ and $p=0.318$ which is above 0.01. This means that there is a statistically insignificant correlation between the two variables. The rural unbanked consumers did not rate this variable highly and therefore it was not important to them when adopting mobile banking. Table 6.20 indicates that service convenience and attitude correlate positively and significantly, $r=0.150$ and $p=0.01$ which is equal to 0.01. Therefore the rural unbanked consumers believed, although weakly, that service convenience through mobile banking services was vital in mobile banking adoption. The correlation relation between distribution dependability and attitude to adopt mobile banking revealed that the two variables are positively and significantly related, $r=0.343$ and $p=0.000$ which is less than 0.01.

6.7. 5 Research Objective 4 and Question 4

6.7.5.1 Impact of Distribution Elements on Attitude to Adopt Mobile Banking

Table 6.21 Pearson correlation matrix between promotional elements and attitude

Correlations

		ATT	FE	PS	AD
	Pearson Correlation	1	.289**	.300**	.326**
ATT	Sig. (2-tailed)		.000	.000	.000
	N	299	299	299	299
	Pearson Correlation	.289**	1	.196**	.404**
FE	Sig. (2-tailed)	.000		.001	.000
	N	299	299	299	299
	Pearson Correlation	.300**	.196**	1	.341**
PS	Sig. (2-tailed)	.000	.001		.000
	N	299	299	299	299
	Pearson Correlation	.326**	.404**	.341**	1
AD	Sig. (2-tailed)	.000	.000	.000	
	N	299	299	299	299

**. Correlation is significant at the 0.01 level (2-tailed).

Source: SPSS output. ATT=Attitude, FE=Financial education, PS=personal selling, AD=Advertising.

The results from the Pearson correlation tests revealed that there was a statistically significant but weak correlation between financial education and attitude towards mobile banking adoption, $r=0.289$ and $p=0.000$ which is below 0.01. Rural unbanked consumers believed that financial education is vital when new distribution channels such as mobile banking are introduced. It can also mean that the rural unbanked people lacked financial education as they have rated it highly. So there is a need to educate them first before trying a new technology.

There was a significant and positive but moderate correlation between personal selling and attitude to adopt mobile banking, $r=0.326$ and $p=0.000$ which is below 0.01. The rural unbanked consumers felt that the demonstration that would be done by sales persons would convince them to adopt mobile banking.

A correlation run between advertising and attitude to adopt mobile banking revealed that there was a significant but moderate correlation between the two variables, $r=0.326$ and $p=0.000$ which is less 0.01. The rural unbanked consumers ranked advertising highly against other promotional elements. They felt that advertising could help them adopt mobile banking. Beside attitude, the three promotional elements correlated significantly and positively.

6.7.6 Research Objective 5 and Question 5

6.7.6.1 The Impact of Attitude on Behavioural Intention to Adopt Mobile Banking

Table 6.22 Person correlation matrix between attitude and behavioural intention

Correlations matrix

		BI	ATT
BI	Pearson Correlation	1	.453**
	Sig. (2-tailed)		.000
	N	299	299
ATT	Pearson Correlation	.453**	1
	Sig. (2-tailed)	.000	
	N	299	299

**. Correlation is significant at the 0.01 level (2-tailed).

Source: SPSS output. BI= Behavioural Intention, ATT=Attitude.

The results in table 6.22 reflect that that there was a statistically significant but moderate correlation between attitude and behavioural intention to adopt mobile banking, r=0.453 and p=0.000 which is below 0.01. They reveal that the rural unbanked consumers had a positive attitude toward behavioural intention to adopt mobile banking in Masvingo province.

6.8 MULTIVARIATE ANALYSIS

6.8.1 Exploratory Factor Analysis

Table 6.23 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.859
Bartlett's Test of Sphericity	Approx. Chi-Square	7978.008
	Df	1540
	Sig.	.000

Source: SPSS output.

To test whether the data from the this study could proceed to factor analysis, a Kaiser-Meyer-Olkin (KMO) measure was used for sampling adequacy and the Bartlett's test of Sphericity was conducted (Field, 2012:695). Kaiser (1970) suggests a cut-off point for KMO of 0.5. The KMO statistic ranges from 0 to 1 and values that are closer to 1 reveal that correlation patterns are intact (Field, 2012:685) and therefore factor analysis will be able to produce distinct, reliable and valid factors (Kaiser, 1970). Hutcheson and Sofronou (1999) put forward some guidelines to consider KMO measure. They argue that 'marvellous'are values ≥0.9, 'meritorious' are values ≥0.8, 'middling' are values ≥0.7, 'mediocre' are values ≥0.6, 'miserable' are values ≥ 0.5 whereas 'merde' are values ≤0.5.

The Bartlett's test indicates whether the correlation matrix is significantly different from an identity matrix (Field, 2012:685). Bartlett's test of Sphericity should be significant at $p < 0.05$ for factor analysis to be conducted. It is suggested that the determinant of the R-matrix should be larger than 0.00001 to check also for multicollinearity.

Results from this study reveal that the KMO=0.859 which is classified as meritorious and the Bartlett's Test of Spherecity indicate a Chi-square value of 7978.008 with a df 1540 resulted in a significant value of p=0.000 which is less than 0.001 indicating that the data from this study qualify as a candidate for factor analysis as there is sufficient correlation.

Table 6.24 Factor loadings of marketing mix elements

	Factor Loading	Eigen Value	% of variance	Cumulative %	Communalities Extracted
Factor Attitude					
Attitude 1	0.826	6.202	22.149	22.149	0.685
Attitude 2	0.793				0.769
Attitude 3	0.670				0.764
Factor 2 Price Transparency					
Price Transparency 3	0.805	4.244	7.579	29.728	0.769
Price Transparency 2	0.786				0.771
Price Transparency 1	0.741				0.729
Price Transparency 4	0.639				0.716
Factor 3 Price-Quality Ratio					
Price-Quality Ratio 3	0.750	2.515	4.491	34.219	0.714
Price-Quality Ratio 1	0.663				0.662
Price-Quality Ratio 2	0.612				0.691
Price Transparency 5	0.608				0.608
Price-Quality Ratio 4	0.594				0.604
Factor 4 Service Convenience					
Service Convenience 2	0.750	2.256	4.028	38.247	0.680
Service Convenience 3	0.642				0.612
Distribution Dependability 2	0.633				0.628
Service Convenience 1	0.618				0.614
Factor 5 Behavioural Intention					
Behavioural Intention 2	0.791	2.130	3.803	42.051	0.769
Behavioural Intention 3	0.762				0.719
Behavioural Intention 1	0.648				0.595
Factor 6 Advertising					
Advertising 3	0.794	1.752	3.128	45.178	0.638
Advertising 2	0.740				0.661
Advertising 4	0.572				0.723
Advertising 1	0.557				0.520
Factor 7 Perceived Ease of Use (PEOU)					
PEOU 2	0.705	1.667	2.977	48.156	0.713
PEOU 3	0.687				0.680
PEOU 1	0.639				0.648
Perceived Usefulness 3					
Perceived Usefulness 3	0.699	1.622	2.897	51.053	0.708
Perceived Usefulness 1	0.624				0.619
Perceived Usefulness 2	0.623				0.635
Factor 9 Perceived Cost					
Perceived Cost 1	0.734	1.516	2.708	53.761	**0.737**
Perceived Cost 2	0.665				**0.710**
Perceived Cost 3	0.644				**0.694**
Factor 10 Personal Selling					
Personal Selling 1	0.822	1.407	2.512	56.272	0.765
Personal Selling 2	0.813				0.742
Personal Selling 3	0.510				0.585

	Factor Loading	Eigen Value	% of variance	Cumulative %	Communalities Extracted
Factor 11 Trialability					
Triability 1	0.769	1.344	2.400	58.672	0.666
Triability 3	0.725				0.613
Triability 2	0.619				0.561
Factor 12 Trust					
Trust 1	0.687	1.305	2.330	61.002	0.658
Trust 2	0.681				0.651
Trust 3	0.643				0.645
Factor 13 Accuracy					
Accuracy 2	0.748	1.176	2.100	63.102	0.707
Accuracy 3	0.661				0.651
Accuracy 1	0.597				0.684
Factor 14 Network Coverage					
Network Coverage 2	0.747	1.109	1.980	65.081	0.792
Network Coverage 1	0.707				0.721
Factor 15 Financial Education					
Financial Education 2	0.705	1.020	1.821	66.903	0.721
Financial Education 1	0.673				0.696
Financial Education 3	0.566				0.572
Extraction Method: Principal Component Analysis **Rotation Method: Varimax with Kaiser Normalisation** **Rotation Converged in 11 iterations** **Reliability Statistics, overall Cronbach alpha = 0.925 Nº of items = 49**					

Source: Compiled by the researcher from SPSS statistical results

6.8.1.1 Varimax Component Analysis

Factors are rotated in order to reduce factor ambiguity (Yong and Pearce, 2013:84). Factor analysis is an approach that is systematically based on the common factor model "which is a theoretical model" (Yong and Pearce, 2013:83). Varimax rotation method was chosen for the analysis of data because such constructs as financial education, accuracy and personal selling created by the researcher needed to be tested. This method is simple to use and its major purpose is to maximise the number of high loadings on each construct and to increase the variance of the squared loading for each factor.

6.8.1.2 Rotated Factor Analysis

Exploratory factor analysis was carried out with the Varimax rotation method on all the 56 items. 15 factors were identified and considered valid from a possible 17. DD 1 an item of distribution dependability did not load as factor loadings with less than 0.4 were excluded and the factors in table 6were listed according to their size. The remaining items DD2 and DD3 were loaded on the service

convenience, resulting in distribution dependability being destroyed as a construct. Price reliability was also lost because it had cross loadings with other variables and only one item PR4 remained. Therefore this single item was deleted as it could not measure the reliability concept. So the results indicate that proposed construct distribution dependability and price reliability and their associated hypotheses were removed by factor analysis and 15 valid latent variables were identified.

6.8.1.3 Interpretations of Factors Loadings

The interpretation of factors requires the researcher to determine the strength of the underlying relationships (Yong and Pearce, 2013:84). The researcher identified factors by using the largest loadings on a given construct since the list of the factors was according to size. However, the researcher used a cut-off point of 0.4 (Field, 2012) to ensure a statistically unambiguous rotated factor loading. To ensure convergent validity, items that loaded highly and converged on a single construct, were selected for further statistical analysis. The Kaiser criterion to determine the number of factors should include a cumulative percentage variance explained by all factors should be greater than 60%, eigenvalues greater than 1 and a significant scree plot. This study had a cumulative percentage variance explained of 66.9% and all eigenvalues are greater than 1 thus meeting the Kaiser criterion (Wiid and Digginer, 2013:241).

Factor 1: Attitude

In the quest to test the structure of attitude items, item ATT1 "I have a positive liking of mobile banking", ATT2 "I like new technology", and ATT3 "Mobile banking is a wise idea" were used. Attitude, after rotation, was found to be the most distinct factor with loadings above 0.67, an eigenvalue of 6.202 well above 1, and had the highest variance of 22.149%. Wiid and Digginer (2013:237) argue that communalities close to 1 indicate that items in a construct correlate highly with the remaining items. According to this study, communalities for attitude items are all above 0.65 meaning that the items are associating quite well and they form part of the overall scale.

Factor 2: Price Transparency (PT)

Originally, there were five items for this construct but only four of them loaded heavily on this factor: PT3 "I think price information is understandable and comprehensible", PT2 "I think price information is complete", correct and frank", PT1 "All price components are clear, comprehensible and understandable" and PT4 "I will be properly informed about the prices of the services". However, PT5 **"**I will know what I pay and what I get" loaded highly on the price-quality ratio factor and it was therefore retained there. The four items had loadings above 0.6 and this factor had an eigenvalue of 4.244 well above 1. Additionally, it

contributed a variance of 7.579% cumulatively bringing the variance to 29.728%. The communalities of the indicators are all above 0.7 indicating a good correlation among the scale items.

Factor 3: Price-Quality ratio (PQ)

In order to determine the structure of the price-quality ratio, PQ3"I have the impression that I know what I will be paying for", PQ1 "Price and quality will meet my needs", PQ2 "The prices I pay will be fair", and PQ4 "The prices I pay depend on how much I will use certain service" were used. The three items for this construct converged well with the least item loading at 0.594, above the threshold of 0.4. However, price transparency item 5 "I will know what I pay and what I get" loaded heavily on this construct and the researcher respected its stay. Price-quality ratio had an eigenvalue of 2.515, well above 1 and explained a variance of 4.491%. Cumulatively, the percentage variance added up to 34.219%. The reported communalities for the items are all high, meaning that all items associate well with each other.

Factor 4: Service convenience (SC)

The rural unbanked consumers were asked to rate the service convenience of mobile banking with three items. The three items SC3 "I would be able to get to the service provider's location quickly", SC2 "Mobile phone banking would not take time to reach the service provider", and SC1 "Mobile phone banking would be easy to contact the service provider" converged well together with the distribution dependability items to give a total of five items. DD2 "The channel will always be available in my residential area" and DD3 "The mobile phone banking system is a safe channel for financial services" were the items that loaded together with service convenience indicators. However, DD3 was dropped in subsequent analysis as it had a very low standardised factor loading of 0.354. In a bid again to raise the reliability of this construct, only four items were retained for further analysis. This factor had a percentage of variance explained of 4.028% and an eigenvalue of 2.256 (above 1). However, the communalities of the items reveal a better association among the items.

Factor 5: Behavioural intention (BI)

Respondents were asked to indicate their behavioural intention to adopt mobile banking in this factor. All indicators BI2 "I will always try to use mobile banking in my daily life", BI3 "I plan to continue to use mobile banking frequently", and BI1 "I intend to use mobile banking in the future" converged well with loadings above 0.6. The commonality factor model reports that the eigenvalue was 2.130 with explained variance of 3.803% and cumulatively adding up to 42.051%. Additionally, all communalities of the three items associate well with each other.

Factor 6: Advertising (AD)

The results from table 6.24 identified advertising as the sixth factor. All the four items loaded highly on this construct and yielded an eigenvalue of 1.752 (above 1) and an explained variance of 3.128%. The association among the items is good as communalities range from 0.520 to 0.723 indicating a great deal on validity. However, the cumulative variance explained was 45.178%.

Factor 7: Perceived ease of use (PEOU)

Three items PEOU2 "My interaction with mobile phone banking would be clear and understandable", PEOU3 "I would find mobile phone banking easy to use", and PEOU1 "Learning to use mobile phone banking is easy for me" were intended to measure this construct and they converged well under the same construct with loadings stretching from 0.629 to 0.703. The reported eigenvalue was 1.667 (above 1) and the percentage of variance explained was 2.977%. The reported communalities were all high, indicating a good correlation among the items.

Factor 8: Perceived usefulness (PU)

In a bid to test the structure of perceived usefulness construct, items PU3 "Mobile phone banking is quite convenient", PU1 "Using mobile phone banking is useful in my daily life", and PU2 "Mobile phone banking improves my banking experience" were used. Respondents were asked to assess the usefulness of mobile banking. All the three items used to measure this construct had factor loadings of between 0.623 and 0.699. The commonality factor model indicates that this construct had an eigenvalue of 1.622 (above 1) and had an explained variance of 2.708%. However, the cumulative variance explained added up to 51.053% for this factor. The three items correlated well as indicated by their communalities in the table.

Factor 9: Perceived cost (PC)

To test for the structure of perceived cost, three measures PC1 "I feel that mobile banking transactions are cheaper", PC2 "The prices charged seem affordable for the rural people", and PC3 "Mobile banking offer better prices than traditional banking" were used. All the three items intended to measure this factor loaded highly on this construct with loadings of between 0.644 and 0.734. The reported eigenvalue is 1.516 (above 1) and the percentage variance explained is 2.708%. However, the communalities for the items reveal that they correlated quite well as they ranged from between 0.694 to 0.737. The cumulative variance explained reached 53.761%.

Factor 10: Personal selling (PS)

Personal selling was measured using three items by requesting respondents to show their attitude towards sales personnel of mobile banking including the network agents. The three items used were PS1 "Sales people would demonstrate convincingly how to use mobile banking", PS2 "They would be able to educate us about the benefits of mobile banking", and PS3 "Network agents provide us with useful information on the use of mobile banking". All the three items converged well to define this factor indicating convergence validity. The three items loaded from between 0.510 and 0.822 thus reporting high loadings. The reported eigenvalue is 1.407 and a percentage variance explained of 2.512%. However, the communalities of the three items indicate that they correlated very well.

Factor 11: Trialability

The three items namely TRI1 "Before deciding whether to use mobile banking, I can properly try it out", TRI3 "I will be permitted to use mobile banking on a trial basis long enough to see what it can do" and TRI2 "Mobile banking will available to me to adequately try it" which were intended to measure trialability, loaded highly with loadings ranging from between 0.619 to 0.769. The eigenvalue of 1.344 (above 1) is reported with a percentage explained variance of 2.400. Again, the three items for this construct correlated well as communalities ranged from 0.561 to 0.666.

Factor 12: Trust

To assess the trust held by rural unbanked consumers, three items T1 "I trust mobile banking agents", T2 "I trust using mobile banking other people around start using it", and T3 "When using mobile banking, I believe my information is kept confidential" were used. These three items converge very well to measure what they were intended to, thus ensuring sufficient validity. The loadings ranged from 0.643 to 0.687 while the reported eigenvalue was 1.305 (above 1). This factor contributed a percentage explained variance of 2.330%, bringing the total variance explained to 61.002%. The communalities of between 0.645 and 0.658 are not 'miserable' as they indicate 'mediocrity'. They therefore indicate a better association.

Factor 13: Accuracy

The researcher used three items to measure this construct. The items were ACC2 "Mobile phone banking is more accurate than traditional banking", ACC3 "Transaction with mobile phone banking does better", and ACC1 "I find mobile phone banking operations to be accurate". These indicators loaded heavily on the accuracy factor with loadings ranging from 0.597 to 0.748. The reported eigenvalue was 1.176 (above

1) and this factor made a contribution of explained variance of 2.100%. In addition the communalities ranged from 0.684 to 0.707 indicating a high level of association among items.

Factor 14: Network coverage (NC)

Three items were originally intended to measure this construct. However, item NC3 **"**I would be able to get to the service provider's location quickly" was dropped as it lowered the reliability of the items. Item NC1 "Mobile phone banking would be easy to contact the service provider" and NC2 "Mobile phone banking would not take time to reach the service provider" were maintained and this improved the Cronbach α index from 0.585 to 0.796. With the same item, average variance explained (AVE) was also compromised because it had a very low standardised loading of 0.345 resulting in the AVE being less than the recommended 0.5 (Hair Jr *et al*, 2011:145). Factor loadings ranged from 0.707 to 0.747 with an eigenvalue of 1.109. This factor is associated with a percentage of explained variance of 1.98%. Additionally, the communalities of the two items respectively are 0.721 and 0.792 which indicates a high association between the two items. Although it is recommended that a factor should have at least 3 items to be called a factor (Tabachnick and Fidell, 2007), the general rule of thumb is that if a factor with two items is rotated, it should produce a correlation greater than 0.7 (Yong and Pearce, 2013:80). In view of this literature, the two items of network coverage after rotation produce a correlation of 0.796 (above 0.7) showing high reliability.

Factor 15: Financial education (FE)

Items FE2 "Financial training programmes are essential in rural mobile banking acceptance", FE1 "Financial knowledge increases my skills to use mobile banking", and FE3 "I feel the government should support the training programmes" were used to measure this construct. The researcher created these questions and according to factor analysis, their validity has been confirmed. The factor loadings of the items ranged from 0.566 to 0.705 and, as the last factor, an eigenvalue of 1.020 was reported with a percentage explained variance of 1.821%. However, the cumulative explained variance was 66.903% which is a high variance for factor identification. The items correlated well as reflected by their communalities of between 0.572 and 0.721.
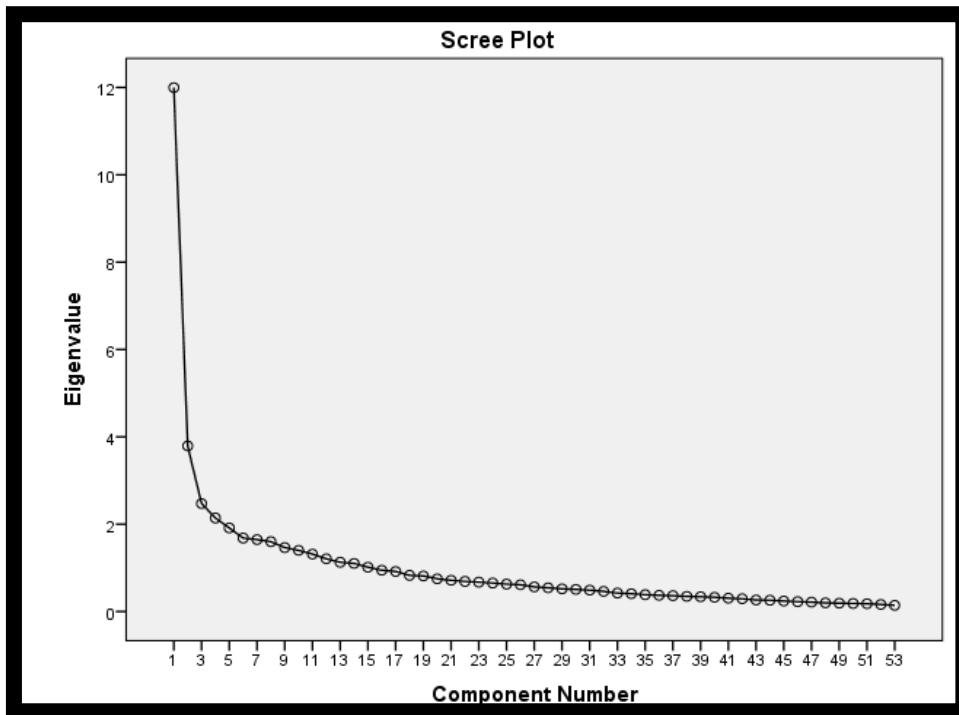
Figure 6.1 Scree plot Source: SPSS output.

Alternatively, a scree plot can be used to select the number of factors. It is a graph that plots each factor on the X-axis and the eigenvalues on the Y-axis (Field, 2013:883). The graph is characterized by a sharp decline curve and is followed by a tailing off (Wiid and Digginer, 2013:242).Subsequently there is a point of inflection which marks the last extracted factor. The bit-by-bit tailing off confirms that the fifteen common factor model is sufficient for this research.

6.9 MULTICOLINEARITY ANALYSIS

Multicolinearity Analysis exists when two or more independent variables highly correlate or are linearly correlated (Field, 2012:879; Cooper and Schindler, 2004:617). This condition can harm or compromise multiple regression effects. Correlations that have values of 0.8 and above are a cause for concern (Field, 2012; Hair *et al*, 2010). In multiple regression, it has a tendency of producing untrustworthy betas as their standard errors of beta coefficient increase. Field (2012:879) further affirms that it limits the size of R^2 as "it indicates the variance in the outcome for which the model accounts". Multivariate techniques work effectively provided the independent variables are moderately correlated. To determine the multicollinearity problem, this study used the concept of the determinant of the R-matrix which is supposed to be greater than 0.00001.If it is less than this value then there are problems of collinearity.

A value of 3.623 E-03 indicates a determinant value of 0.003623 which is greater than the necessary value of 0.0001 which shows that there are no collinearity problems. To re-assess multicollinearity a scan of the correlation matrix of the independent variables was done and the results are as given in Table 6.26 The results reveal that the correlation matrix for the constructs range from as little as 0.114 to 0.564, which are all below 0.8. This indicates that the constructs do not correlate highly and therefore there are no collinearity problems in this study.

A further multicollinearity test, the computed variance inflation factors (VIFs) were less than the conservative threshold of 5 and this strongly suggested that there were no multicolinearity issues in this research (Saunders *et al*., 2009:463; Hair *et al*., 2011:145; Venkatesh *et al*., 2012:168).

6.10 CONSTRUCT RELIABILITY AND VALIDITY ANALYSIS

For research information to be generalisable it really depends on the reliability and validity of the instrument used to gather the data and on the data itself. Before proceeding to multiple regression analysis, the researcher did rigorous construct reliability and validity tests. Campbell and Fiske (1959:100) support this idea by indicating that testing of convergent and discriminant validity must be done before the testing of hypotheses to avoid acceptance of erroneous conclusions from the results. This section deals with construct reliability and validity testing before testing the propositions made in Chapter One.

6.10.1 Construct Reliability

According to Campbell and Fiske (1959:83), construct reliability "is the agreement between two efforts to measure the same trait through maximally similar methods". The acceptable level of reliability is 0.7 (Hair *et al*., 2011:145, Nunally, 1967). However, in exploratory factor analysis, levels of 0.6 to 0.7 are considered acceptable (Hair *et al*., 2011:145). From the results of this study after exploratory factor analysis, the reliabilities fall in a range of 0.610 to 0.862 levels, confirming acceptable to good reliability.

6.10.2 Convergent and Discriminant Validity

Peter (1981:134) defines construct validity as "the degree to which instruments truly measure the constructs which they are intended to measure". Construct validity is divided into convergent and discriminant validity.

According to Campbell and Fiske (1959:83), convergence validity "is represented in the agreement between two attempts to measure the same trait through maximally different methods". Convergent validity is a testimony that the instrument did tap the concepts as theorised. It measures the degree of confidence that the researcher has about a construct that it is well measured by its indicators. This validity type can be measured or assessed by the use of Average Variance Extracted (AVE) and Composite Reliability (CR). AVE is a measure of the variance that is captured against the level because of measurement errors. Hair *et al*. (2011:145) recommend that an AVE should be higher than 0.5 while Campbell and Fiske (1959) affirm that an AVE of 0.7 is very good. The composite reliability is believed to be less biased than the Cronbach α index as an estimate of reliability and the acceptable value is 0.7.

Discriminant validity reveals the extent to which items of different constructs are unrelated. Fornwell and Larcker (1981) suggest that when assessing discriminant validity the researcher needs to use AVE. The AVE of each latent construct should be higher than the construct's highest squared correlation with any other latent variable (Fornell and Larcker, 1981). For the validity to be realised it should be greater than 0.5. The square roots of the AVE for each construct must be higher than the correlations involving the constructs. In another version, if all constructs are correlated, the weight of each correlation should be less than the square root of the AVE. Within the discriminant validity matrix, the AVE between constructs (the diagonal elements) should be greater than the off diagonal elements (Zait and Bertea, 2011:218). When the AVE square roots values are extracted, that will be used to examine the dimensionality of the constructs (Puschel *et al*., 2010:397). Both convergent and discriminant validities are able to accurately record the aspects of goodness of fit of the measurement indicators (Gefen and Straub, 2005:92). Table 6.25 reveals the average variance extracted, AVE square roots, the composite reliabilities, the *R* squared values and the Cronbach's Alpha indexes.

Table 6.25 Construct Reliability and Validity

Constructs	AVE	AVE square Root	Composite Reliability	R²	Cronbach's Alpha
1. Attitude	0.656	0.810	0.871	0.4604	0.862
2. Price Transparency	0.600	0.775	0.855		0.851
3. Price-Quality Ratio	0.538	0.773	0.839		0.837
4. Service Convenience	0.538	0.733	0.761		0.747
5. Behavioural Intention	0.507	0.712	0.798	0.205	0.794
6. Advertising	0.532	0.729	0.752		0.751
7. Perceived ease of use	0.511	0.715	0.828		0.825
8. Perceived usefulness	0.502	0.709	0.746		0.741
9. Perceived cost	0.597	0.773	0.815		0.811
10. Personal selling	0.687	0.829	0.814		0.725
11. Trialability	0.691	0.831	0.674		0.669
12. Trust	0.550	0.742	0.705		0.703
13. Accuracy	0.548	0.740	0.703		0.695
14. Network coverage	0.709	0.842	0.823		0.796
15. Financial education	0.561	0.749	0.625		0.610

Table 6.25 shows each construct's AVE, composite reliability and revised Cronbach' alpha index after exploratory factor analysis. Most of the composite reliabilities are above 0.7 showing good reliability, while trialability and financial education had values less than 0.6. However, it is notable that the composite reliabilities are greater than Cronbach α indexes which reveals a better reliability. Caemmerer and Descotes (2014:1773) contend that composite reliability using Joreskog's Rhó are more correct than just using Cronbach alpha index, for constructs with few indicators such as the item approach that was used in this study in the research instrument. The AVEs range from 0.502 to 0.707 which shows a better construct reliability as they are all above 0.5. However, 53% of the constructs have their AVEs less than

0.6 which is a cause for concern for further statistical analysis, for example, confirmatory factor analysis which takes 0.7 as acceptable. In view of this discussion, convergent validity has been confirmed.

6.18.3 Assessment of Discriminant Validity

Table 6.26. Variables correlation matrix based on the AVE square root of the unbanked consumers

Correlations

	PU	PEOU	TRI	ACC	PT	PQ	PC	T	NC	SC	AD	PS	FE	ATT	BI
PU	0.71														
PEOU	.445**	0.72													
TRI	.249**	.255**	0.83												
ACC	.413**	.253**	.204**	0.74											
PT	.199**	.131*	.273**	.291**	0.78										
PQ	.340**	.233**	.267**	.391**	.564**	0.77									
PC	.307**	.173**	.309**	.369**	.468**	.536**	0.77								
T	.257**	.203**	.215**	.329**	.358**	.429**	.344**	0.74							
NC	.091	.060	.263**	.236**	.296**	.263**	.306**	.405**	0.84						
SC	.280**	.188**	.249**	.270**	.314**	.412**	.328**	.446**	.366**	0.73					
AD	.373**	.225**	.114*	.305**	.282**	.400**	.354**	.318**	.057	.255**	0.73				
PS	.280**	.269**	.124*	.127*	.189**	.280**	.127*	.255**	.160**	.267**	.341**	0.83			
FE	.348**	.157**	.234**	.255**	.210**	.289**	.285**	.265**	.187**	.228**	.404**	.196**	0.75		
ATT	.323**	.574**	.188**	.297**	.105	.227**	.178**	.249**	.058	.150**	.326**	.300**	.289**	0.81	
BI	.420**	.269**	.198**	.399**	.207**	.337**	.309**	.305**	.161**	.219**	.360**	.228**	.417**	.453**	0.71

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Source: SPSS output. PU=Perceived usefulness, PEOU=Perceived ease of use, TRI=Trialability, ACC=Accuracy, PT=Price transparency, PQ=Price quality ratio, PC=Perceived cost, T=Trust, NC=Network coverage, SC=Service convenience, AD=Advertising, PS=Personal selling, FE=Financial education, ATT=Attitude, BI=Behavioural intention.

Table 6.26 indicates that the AVEs between constructs (the diagonal elements) are greater than he off diagonal elements. The results confirm discriminant validity as the constructs correlations shown are lower than the AVE's square root. The motivation behind discriminant validity tests is to reveal evidence that the constructs used in the model are really distinct. Voorhees *et al*. (2016:120) reveal that the constructs should "not just be empirical reflections of each other". Voorhees *et al.* (2016:121) argue that "For studies that model constructs in a series of independent and dependent relationships, a lack of discriminant validity calls into question whether statistically significant parameters are really supported by the data or are simply an artefact of modelling the same constructs twice in one model". So this statement shows that discriminant validity is essential in statistical measure such as multiple regression.

6.11 Multiple Regression Analysis and Testing of Hypotheses

Field (2012:881) defines multiple regression as an extension of linear regression in which a dependent variable is predicted by numerous variables that are in linearity. The multiple regression method has the power to remove insignificant and uninformative predictors in order to formulate a better and representative model. Despite it being a better statistical tool to test a model, it is also essential in model generation since less powerful predictors are winnowed out of the model.

6.11.1 Research Objective 1 and Product Attributes Sub-hypotheses Testing

In this section multiple regression analysis (MRA) was done in order to test the hypothesis set and to determine the direct relationships between the financial product attributes and attitude toward mobile banking adoption. The sub-hypotheses pertaining to financial product attributes are as listed below:

H1a: Perceived usefulness has a positive influence on attitude to adopt mobile banking by the rural unbanked consumers.

H1b: Perceived ease of use has a positive influence on attitude to adopt mobile banking by the rural unbanked consumers.

H1c: Service trialability has a positive influence on the attitude to adopt mobile banking by the rural unbanked consumers.

H1d: Accuracy of the mobile system has a positive influence on mobile banking adoption by the rural unbanked consumers.

Table 6.27 The relationship between financial product attributes and attitude toward mobile banking adoption

Model Summary					
Model	R	R Square Adjusted R Square	Adjusted R Square	Std. Error of Estimate	Durban-Watson
1	.596[a]	.355	.346	1.16330	1.664
ANOVA					
Model	Sum of Squares	Df	Mean Square	F	Sig
1. Regression	757.644	4	151.529	40.474	.000[b]
Residual	1375.881	294	4.640		
Total	2133.525	299			
COEFFICIENTS					

Model	Unstandardised coefficients		Standardised Coefficient			Collinearity Statistics	
	B	Std. Error	B	t	Sig.	Tolerance	VIF
1. Constant	3.660	.890		4.113	.000		
Perceived usefulness	.148	.058	.157	2.459	.011	.697	1.436
PEOU	.544	.056	.521	9.795	.000	.776	1.288
Triability	.018	.051	.018	2.914	.719	.908	1.108
Accuracy	.179	.062	.151	2.914	.004	.815	1.227

Source: SPSS output. a. Predictors: (Constant), Accuracy, Trialability, Perceived ease of use, Perceived usefulness. Dependent variable: Attitude

Table 6.27 reveals that the regression model between the financial product attributes (accuracy, trialability, perceived ease of use, and perceived usefulness) and attitude toward mobile banking, account for 35.5% of the variance (R^2=0.355). It means that other independent variables can explain the remaining variance of 64.5%. The results indicate that this model is statistically significant and the data fits the model (F=40.474, p=0.000) well. The Durbin-Watson test analyses the serial autocorrelations between errors in the multiple regression model (Field, 2012:874). It tests if close or adjacent residuals are correlated and it is essential when evaluating independence assumptions. The statistic varies between 0 and 4 where a value of 2 means no autocorrelation of errors. A value greater than 2 shows a negative correlation whereas a value less than 2 testifies positive correlation between residuals. The rule of thumb for this test is the d should fall between 1.5 and 2.5 (Garson, 2012:47). In this study the Durbin-Watson test *(d)* of 1.664 falls within the acceptable range showing that no autocorrelation is evident.

The results from Table 6.27 testify that the perceived usefulness, perceived ease of use, and mobile banking system accuracy have a statistically significant effect on attitude toward mobile banking adoption. There is a significant relationship between perceived usefulness and attitude toward mobile banking (β=148, t=2.549, p<0.05). Perceived ease of use has the strongest positive relationship with attitude to adopt mobile banking (β=0.544, t=9.795, p<0.05). System accuracy has also a strong positive relationship with attitude toward mobile banking (β=0.179, t=2.914, p<0.05).These results donate support to sub-hypotheses *H1a, H1b, and H1d* and therefore these hypotheses are not rejected. However, system trialability revealed no significant relationship with attitude toward mobile banking (β=0.018, t=0.360 p>0.05). Thus, sub hypothesis *H1c* is not supported or is rejected.

Multicollinearity in the above regression table is measured by either the tolerance or the variance inflation factor (VIF). These measures indicate whether a predictor variable in the model have strong linear relationships with other variables (Field, 2012:886). The tolerance is simply the reciprocal of variance inflation factor. Variance inflation factors that are equal to 1indicate that the variables are uncorrelated, a variable inflation factors between1 and 5 are moderately correlated, while variance factors above 5 are highly correlated. The rule of thumb again is to consider VIFs with less than 5 values for indicators (Saunders *et al*., 2009:463, Hair *et al*., 2011:145).

The tolerance values should be close to 1 to indicate that there is no problem of multicollinearity (Field, 2012). Menard (1995:66) suggests that a tolerance that is below 0.2 is a problematic one, therefore a tolerance of 0.2 converts to 5 variance inflation factors which is the most recommended one (O'Brien, 2007, Hair *et al*., 2011:145). The results of this study indicate that all the tolerance values are greater than 0.2 and are close to 1 and the variance inflation factors range between 1.108 and 1.436 which are well below the recommended less than 5 (Hair *et al*., 2011:145). In this regard, there are no multicollinearity issues.

6.11.1.1 Residuals statistics

Field (2012:883) defines a residual (error) as "the difference between the value a model predicts and the value observed in that data on which the model is based". When the sample data fits the model well, the residuals are small, whereas when the model does not fit the sample data well, then the residuals are large. Standardised residuals are used to mitigate such problems of large errors. Field (2012:306) recommends that in normally distributed data, standardised residuals greater than ±3.29 are a cause for concern meaning that errors should fall within this range.

Table 6.28 Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	7.5309	15.2003	12.8528	1.59450	299
Residual	-8.94824	7.09941	.00000	2.14873	299
Std. Predicted Value	-3.338	1.472	.000	1.000	299
Std. Residual	-4.136	3.282	.000	.993	299

Source; SPSS output. a. Dependent Variable: ATTITUDE

The above results indicate that the standardised residual is (min=-4.136 and max=3.282) which is slightly outside the interval ±3.29 (Field, 2012:306). It means that a few errors characterised this model. However, the normal distribution of the above regression model has a mean value of 0 (.000) and a standard deviation (0.993) which is near absolute value 1 from the residuals.

6.11.1.2 Normality Plots
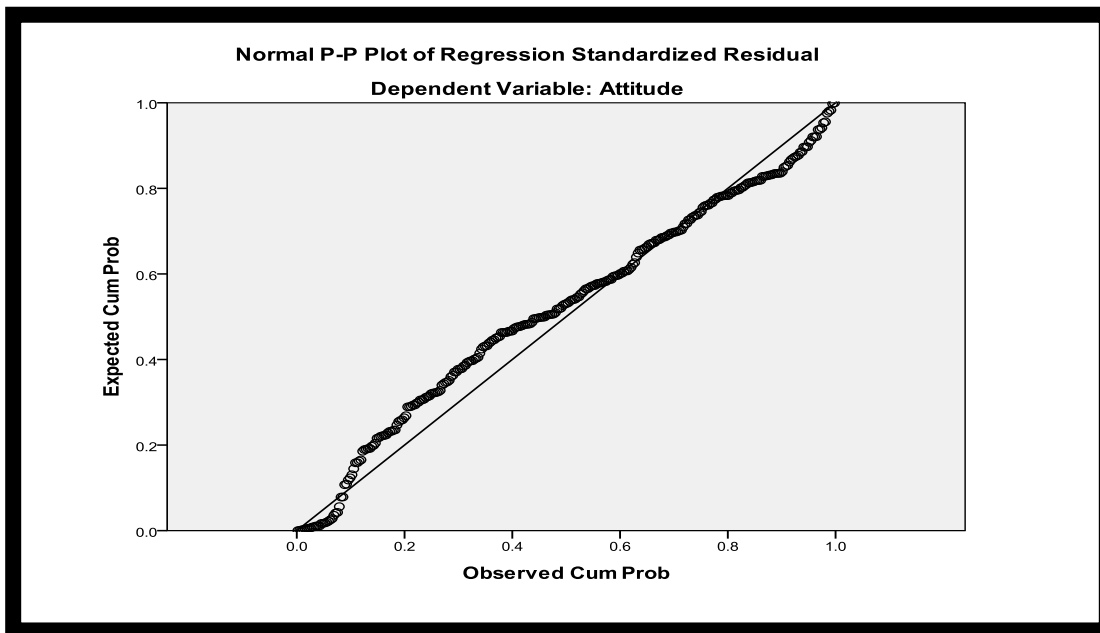
Source: SPSS output. Fig. 6.2 Normal P-P Plots of Regression Standardised Residuals

The above Figure 6.2 reveals that the points lie in a reasonably straight diagonal line and indicate negligible variations from normality.

6.11.2 Research Objective 2 and Price Satisfaction Dimension Sub-hypotheses Testing

In this section multiple regression analysis (MRA) was done in order to test the hypotheses set and to determine the direct relationships between the price satisfaction dimensions and attitude toward mobile banking. The sub hypotheses pertaining to price satisfaction dimensions are as listed below:

H2a: Price transparency has a positive influence on attitude to adopt mobile banking by the rural unbanked consumers.

H2b: Price-quality ratio has a positive influence on attitude to adopt mobile banking by the rural unbanked consumers.

H2c: Perceived costs have a negative influence on attitude to adopt mobile banking by the rural unbanked consumers.

H2d: Price reliability has a positive influence on attitude to adopt mobile banking by the rural unbanked consumers.

Table 6.29 The impact of price satisfaction dimensions on attitude toward mobile banking

Model Summary					
Model	R	R Square Adjusted R Square	Adjusted R Square	Std. Error of Estimate	Durban-Watson
1	.370[a]	.137	.128	1.05643	1.7939
ANOVA					
Model	Sum of Squares	Df	Mean Square	F	Sig
2. Regression	198.265	3	66.088	15.628	.000[b]
Residual	1247.521	296	4.215		
Total	1444.786	299			
COEFFICIENTS					
Model	Unstandardised coefficients		Standardised Coefficient			Collinerity Statistics	
	β	Std. Error	B	t	Sig.	Tolerance	VIF
2. Constant	9.258	.601		15.410	.000		
Price transparency	-.012	.041	-.020	-.303	.762	.644	1.554
Price quality ratio	.135	.038	.250	3.555	.000	.587	1.704
Price confidence	.141	.050	.185	2.804	.005	.672	1.488

Source: SPSS output. Dependent variable: Attitude. Predictors: (Constant), Price transparency, Perceived-Quality ratio, and Perceived cost

Results from Table 6.29 reveal that the predictors perceived cost, price transparency, and price-quality ratio accounted for only 13.7% of the variance in the independent variable (attitude) (R^2=0.137). This is

188

not a substantial an explanatory power. It means that the rest of 86.3% has to be explained by other variables in the model. The ANOVA section reveals that the model is statistically significant and the data fits the model (F=15.628, p=0.000). However, the Durbin-Watson d value is 1.739 which lies clearly well within the recommended 1.5 and 2.5 rule of thumb (Garson, 2012:47) indicating no serial correlation.

As observed in Table 6.29the price-quality ratio and perceived cost have a positive and statistically significant influence on attitude formation toward mobile banking (β=0.135, t=3.355, p<0.05 and β=0.141, t=2.804, p<0.05). However, price transparency had a negative and statistically insignificant relationship with attitude toward mobile banking (β= -0.012, t= -0.303, p=0.762). The results donate support only to hypothesis *H2b* and thus is accepted. It pours for hypotheses *H2a* and *H2c* which have been rejected on the basis that price transparency had an inverse and insignificant effect on attitude and perceived cost had a positive and statistically significant correlation with attitude toward mobile banking, which is against the set direction of the hypothesis. Therefore the two hypotheses are rejected.

6.2.2 .1 Residuals Statistics

Table 6.30 Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	10.2152	14.5329	13.1037	.81567	299
Residual	-9.34150	4.19685	.00000	2.04605	299
Std. Predicted Value	-3.541	1.752	.000	1.000	299
Std. Residual	-4.543	2.041	.000	.995	299

 Source: SPSS output.

Table 6.32 depicts the standardised residual value (min=-4.543 and max=2.041). The minimum value falls outside the interval while the maximum value falls within the range, indicating that a few errors characterise this regression model (Field, 2012:306). Additionally, the normal distribution of this regression model has a mean value of 0 (.000) and a standard deviation of 0.995 which is closer to absolute value 1 (Tabachnick and Fidell, 2007).

6.11.2.2 Normality Plots
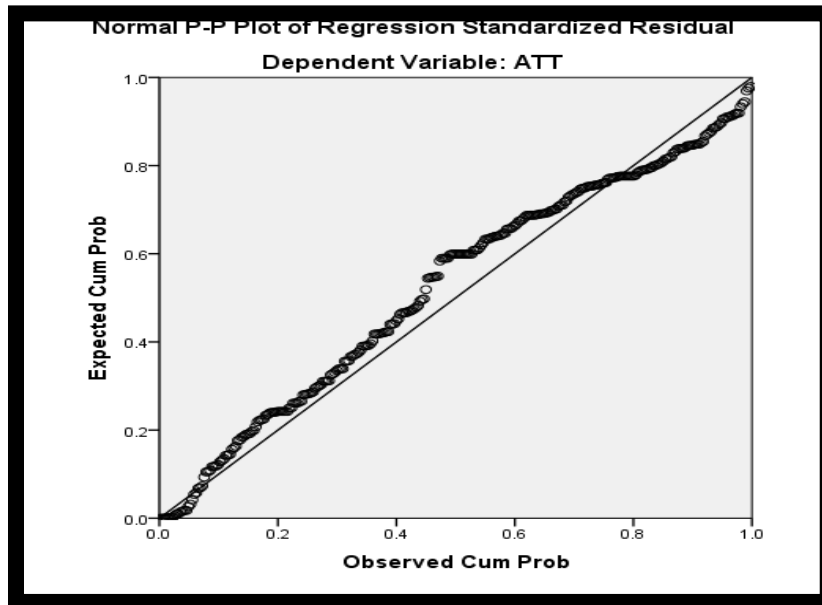
Source: SPSS output. Fig 6.3 Normal P-P Plot for Regression Standardised Residual.

The above Figure 6.3 reveals that the data for the standardised residuals is quite close to the 45^0 inclination, showing a better normality in the residuals. The behaviour of the sample data indicates that there is a close linear relationship between the observed data and the expected.

6.11.3 Research Objective 3 and Place Elements Sub-hypothesis Testing

In this section, multiple regression analysis (MRA) was done in order to test the hypotheses set and to determine the direct relationships between the distribution elements and attitude toward mobile banking adoption. The sub-hypotheses pertaining to place element are as listed below:

H3a: Trust has a positive influence on attitude to adopt mobile banking by the rural unbanked consumers.

H3b: Network coverage has a positive influence on attitude to adopt mobile banking by the rural unbanked consumers.

H3c: Distribution dependability has a positive influence on attitude to adopt mobile banking by the rural unbanked consumers.

H3d: Service convenience has a positive influence on attitude to adopt mobile banking by the rural unbanked consumers.

190

Table 6.31The influence of distribution elements on attitude toward mobile banking

Model Summary					
Model	R	R Square Adjusted R Square	Adjusted R Square	Std. Error of Estimate	Durban-Watson
1	.320[a]	.102	.093	1.10047	1.828
ANOVA					
Model	Sum of Squares	Df	Mean Square	F	Sig
3. Regression	147.809	3	49.270	11.198	.000[b]
Residual	1297.977	296	4.40		
Total	1445.786	299			
COEFFICIENTS					
Model	Unstandardised coefficients		Standardised Coefficient			Collinearity Statistics	
	β	Std. Error	B	t	Sig.	Tolerance	VIF
3. Constant	9.618	.811		11.863	.000		
Trust	.265	.070	.247	3.760	.000	.733	1.364
Network coverage	-.078	.075	-.065	-1.035	.302	.793	1.261
Service convenience	.053	.054	.063	.982	.327	.760	1.316

Source SPSS output. a. Predictors: (Constant), Service convenience,
Network coverage, and Trust. b .Dependent variable: Attitude.

The results in Table 6.31 show that the predictor variables service convenience, network coverage, and trust account for only 9,3% in predicting the independent variable attitude (R^2=0.102). This result indicates a very weak predictive power of the three constructs in the model. In addition, the results from Table 6.31 indicate that the model is statistically significant and the data fit the model (F=11.197, p=0.000). However, there are no autocorrelation problems detectable in this model's independent variables as the Durban-Watson statistic is between the recommended range of 1.5 and 2.5 (1.828).

As can be noticed from table 6.31 only one construct out of three finds empirical support. Trust has a statistically strong and positive relationship with attitude toward mobile banking adoption by the rural unbanked consumers (β=0.265, t=3.760, p<0.05). Thus, sub-hypothesis H3a is not rejected as empirical evidence heavily donate support. However, network coverage and service convenience are not being supported in this instance due to the fact that they show a statistically insignificant relationship with attitude toward mobile banking (β=-0.078, t=-1.035, p>0.05) and (β=0.053, t=0.982, p>0.05) respectively. Additionally, network coverage has an insignificant negative relationship with attitude toward mobile banking. Given these results, sub-hypotheses H3b and H3d are hereby rejected. The tolerance values range from 0.733 to 0.793 and these are well above the recommended 0.2 (O'Brien, 2007) and the VIFs

range between 1.261 and 1.364 which are less than 5 by far (Hair *et al*, 2011:145). This indicates there are no severe collinearity issues.

6.11.3.1 Residual statistics

Table 6.32 Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	10.4664	14.4307	12.8528	.69320	299
Residual	-10.95424	4.16311	.00000	2.58437	299
Std. Predicted Value	-3.443	2.276	.000	1.000	299
Std. Residual	-4.217	1.603	.000	.995	299

Source: SPSS output. a. Dependent Variable: Behavioural intention

The results in table 6.32 reveal that the standardised residual (min=-4.217 and max=1.603) falls within the interval (±3.29) indicating that the model is free of errors. However, the normal distribution of the regression model is characterised by a mean 0 (.000) and a standard deviation of 0.995 which is very close to absolute value 1 (Tabachnick and Fidell, 2007).

6.11.3.3 Normality Plots
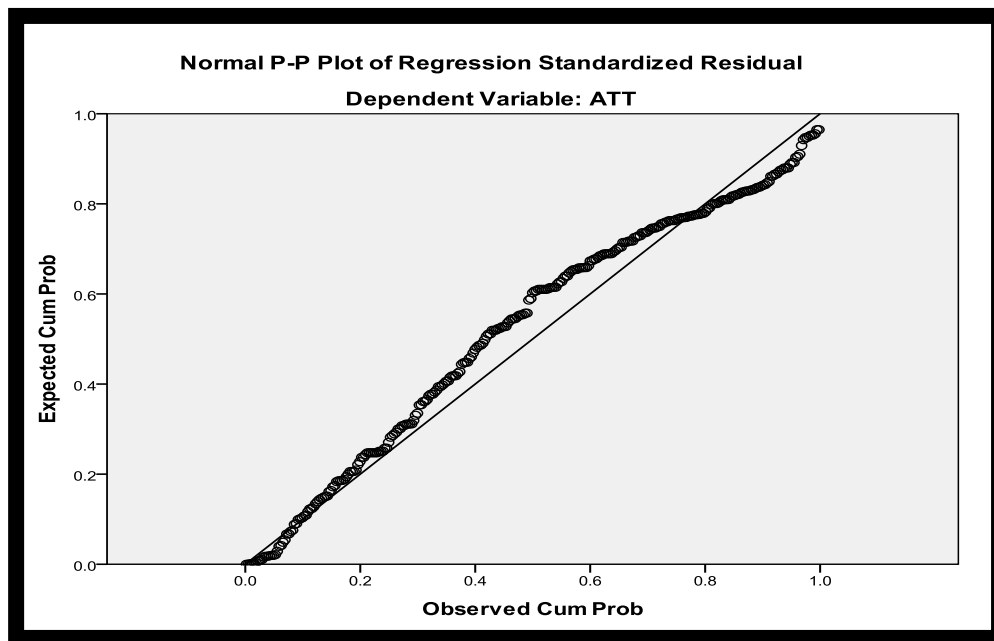
Source: SPSS output. Fig 6.4 Normal P-P Plot of Regression Standardised Residual

Results from Figure 6.4 show that the data behaves close to the straight line which indicates there is some normality in the distribution of standardised residuals.

6.11.4 Research Objective 4 and Promotional Elements Sub-hypotheses Testing

In this section multiple regression analysis (MRA) was done in order to test the hypotheses set and to determine the direct relationships between the promotional tools and attitude toward mobile banking adoption. The sub-hypotheses pertaining to promotional elements are as listed below:

H4a: Advertising has a positive influence on attitude to adopt mobile banking by the rural unbanked consumers.

H4b: Personal selling has a positive influence on attitude to adopt mobile banking by the rural unbanked consumers.

H4c: Financial education has a positive influence on attitude to adopt mobile banking by the rural unbanked consumers.

Table 6.33The relationship between promotional elements and attitude toward mobile banking

Model Summary					
Model	R	R Square Adjusted R Square	Adjusted R Square	Std. Error of Estimate	Durban-Watson
1	.414[a]	.172	.163	1.17651	1.606
ANOVA					
Model	Sum of Squares	Df	Mean Square	F	Sig
4. Regression	366.435	3	122.145	20.391	.000[b]
Residual	1767.091	296	5.990		
Total	2133.535	299			
COEFFICIENTS					
Model	Unstandardised coefficients		Standardised Coefficient			Collinerity Statistics	

Model	β	Std. Error	B	T	Sig.	Tolerance	VIF
4. Constant	5.404	.979		5.518	.000		
Advertising	.172	.056	.186	3.075	.002	.765	1.307
Personal selling	.207	.058	.202	3.580	.000	.879	1.137
Financial education	.215	.072	.174	3.001	.003	.833	1.201

Source: SPSS Output. a. Predictors: (Constant), Financial education, Personal selling, and Advertising. Dependent variable: Attitude

The model summary discloses that predictor variables financial education, personal selling, and advertising account for 17.2 % of the variance (R^2=0.172). The remaining 82.8% is explainable by other variables. The ANOVA section of the table shows that the model is statistically significant and the data fits the model (F=20.391, p=0.000). The Durban-Watson index shows a value of 1.606 which falls between the recommended 1.5 and 2.5 and it indicates therefore that there are no autocorrelation issues in the associated independent variables.

Table 6.33 discloses that the regression results indicate that advertising, personal selling, and financial education have statistically significant and positive relationships with attitude toward mobile banking adoption by the rural unbanked consumers in Masvingo province (β=0.172, t=3.075, p<0.05), (β=.207, t=3.580, p<0.05, and (β=0.215, t=3.001, p<0.05) respectively. From these results financial education has proven to be the most important driver of attitude toward mobile banking followed by personal selling and lastly advertising. These empirical results therefore give support to the three sub-hypotheses H4a, H4b, and H4c.Thus, the three sub-hypotheses are not rejected. The tolerance values of 0.765 to 0.879 are close to 1 and VIFs range between 1.137 and 1.307 which are within the recommended less than 5 (Rogerson, 2001; Saunders *et al.*, 2009:463; Hair *et al.*, 2011:145). These results disclose that multicollinearity is not an issue in this situation.

6.11.4.1 Residual statistics

Table 6.34 Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	8.3428	15.1640	12.8528	1.10889	299
Residual	-10.75491	4.51267	.00000	2.43513	299
Std. Predicted Value	-3.067	2.084	.000	1.000	299
Std. Residual	-3.394	1.844	.000	.995	299

 Source: SPSS output.Dependent Variable: Attitude

Table 6.34 reveals that the standardised residual (min=-3.394 and max=1.844) falls within the interval ($\pm$3.29) (Field, 2012:306) which indicates that the errors in this regression model are not a cause for concern. Moreover, the normal distribution of this regression model has a mean of 0 (.000) and a standard deviation of 0.995 which is close to absolute value 1 (Tabachnick and Fidell, 2007).

6.11.4.2 Normality Plots

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Attitude
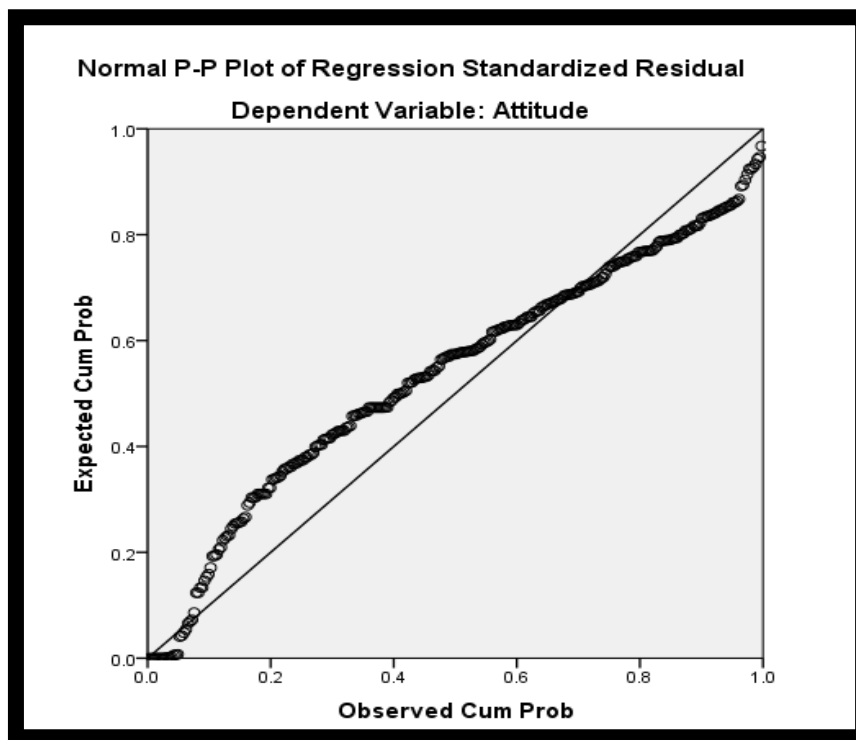
Fig 6.5 Normal P-P plot of Regression Standardised Residual.Source: SPSS output.

The results from Figure 6.5 show that the observed data first behaves in an abnormal way but ends up in a normal fashion. This indicates a slight deviation from normal distribution.

6.11.5 Research objective 5 and attitude hypothesis testing

In this section linear regression analysis (LRA) was performed in order to test the hypothesis set and to determine the direct relationships between the price satisfaction dimensions and attitude toward mobile banking adoption. The sub-hypotheses pertaining to attitude are as listed below:

H5: Attitude has a positive influence on behavioural intention to adopt mobile banking by the rural unbanked consumers.

Table 6.35 The relationship between attitude and behavioural intention toward mobile banking

Model Summary					
Model	R	R Square Adjusted R Square	Adjusted R Square	Std. Error of Estimate	Durban-Watson
1	.453	.205	.203	.96701	1.561
ANOVA					
Model	Sum of Squares	Df	Mean Square	F	Sig
5. Regression	296.654	1	296.654	76.672	.000[b]
Residual	1149.132	298	3.869		
Total	1445.786	299			
COEFFICIENTS					
Model	Unstandardised coefficients		Standardised Coefficient			Collinerity Statistics	

Model	β	Std. Error	β	t	Sig.	Tolerance	VIF
5. Constant	8.311	.559		14.867	.000	1.000	1.000
Attitude	.373	.043	.453	8.756	.000		

Source: SPSS output

It is observed from Table 6.35 that attitude accounts for 20.5% of the variance (R^2=.205) meaning that the remaining 79.5% is attributed to other factors. Additionally, the model is statistically significant and the data strongly fit the model (F=76.672, p=0.000). The Durban-Watson statistic is 1.561 which falls between the recommended 1.5 and 2.5 (Garson, 2012:47). The results from table 6.35 reveal that there is a statistically significant relationship between attitude and behavioural intention to adopt mobile banking by the rural unbanked consumers in Masvingo province (β=0.373, p<0.05). However, since the variables under consideration are just two, the tolerance and VIF are normally 1.

6.11.5.2 Residual Statistics

Table 6.36 Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	9.4297	13.9043	13.1037	.99774	299
Residual	-7.53144	5.57031	.00000	1.96371	299
Std. Predicted Value	-3.682	.802	.000	1.000	299
Std. Residual	-3.829	2.832	.000	.998	299

Source: SPSS output. a. Dependent Variable: Attitude.

In this study the standardized residual (min=-3.829 and max=2.832) indicates that errors in this regression model are not an issue since these values fluctuate around ±3.29 (Field, 2012:306). The normal distribution of this regression model has a mean of 0 (.000) while the standard deviation of 0.998 is too close to absolute value 1 (Tabachnick and Fidell, 2007).

6.11.5.2 Normality Plots
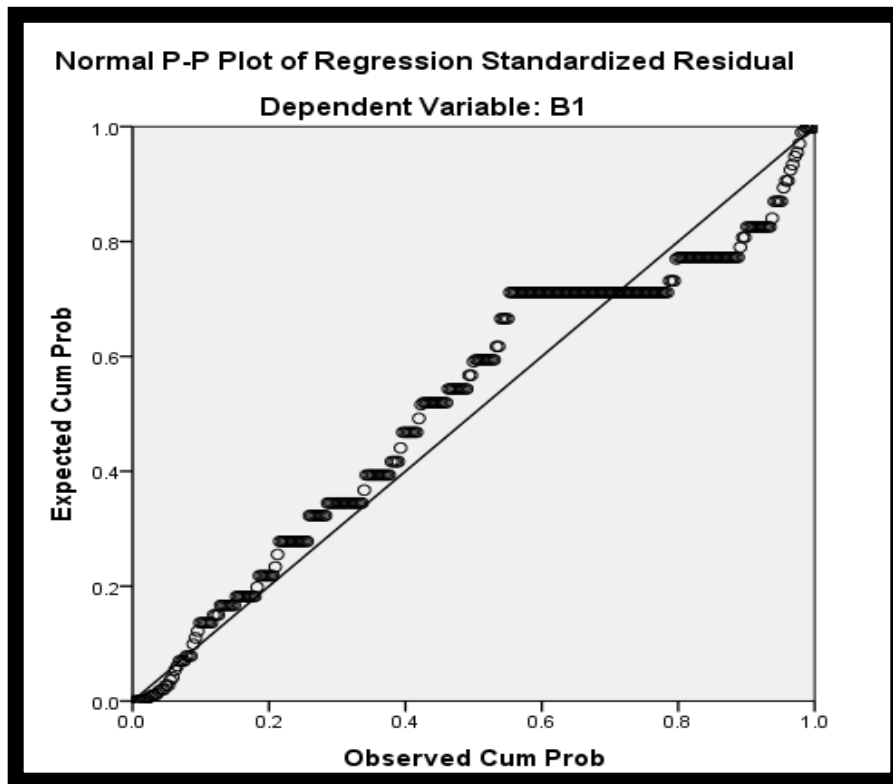
Fig. 6.6 Normal P-P plot of Regression Standardised Residual. Source: SPSS output.

As observed from Figure 6.6 the data behaves much closer to the straight line which indicates a normal distribution.

6.11.6 Multiple Regression Model

Table 6.37 Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.681[a]	.464	.438	2.00592	1.572

Source: SPSS output a. Predictors: (Constant), Financial education, Perceived ease of use, Network coverage, Personal selling, Price transparency, Trialability, Accuracy, Service convenience, Advertising, Trust, Perceived cost, Perceived usefulness, and Price-Quality ratio. Dependent variable: Attitude

It can be observed in Table 6.37 that all the above predictor variables account for 46.4%. This value has been suppressed to this level due to other variables such as network coverage, price transparency, trialability and service convenience that reflected statistically insignificant relationships with the dependent variable attitude. However, in an optimal model when all variables have been entered in a single block, poor predictors need be removed using a stepwise regression (Malhotra and Galletta, 1999:8). Furthermore, the Durban-Watson statistic of 1.572 falls within the range of 1.5 and 2.5 which indicates there are no problems of multicollinearity.

Table 6.38 Summary of sub-hypotheses testing

Hypothesis	Path	Path coefficient	t-value	Results
H1a	PU→ATT	0.148	2.549	Supported (*p*<0.05)
H1b	PEOU→ATT	0.544	9.795	Supported (*p*<0.05)
H1c	TRI →ATT	0.018	0.360	Rejected (*P*>0.05)
H1d	ACC →ATT	0.179	2.914	Supported (*p*<0.05)
H2a	PT →ATT	-0.012	-0.303	Rejected (*p*>0.05)
H2b	PQ →ATT	0.135	3.535	Supported (*p*<0.05
H2c	PC→ATT	0.141	2.804	Rejected (*p*<0.05)
H3a	T →ATT	0.265	3.760	Supported (*p*<0.05)
H3b	NC→ATT	-0.078	-1.035	Rejected (*p*>0.05)
H3d	SC→ATT	0.053	0.982	Rejected (*P*>0.05)
H4a	AD→ATT	0.172	3.075	Supported (*p*<0.05)
H4b	PS →ATT	0.207	3.580	Supported (*p*<0.05)
H4c	FE→ATT	0.215	3.001	Supported (*p*<0.05
H5	ATT→BI	0.373	8.756	Supported (*p*<0.05)

PU=Perceived usefulness, PEOU=Perceived ease of use, TRI=Trialability, ACC=Accuracy, PT=Price transparency, PQ=Price quality ratio, PC=Perceived cost, T=Trust, NC=Network coverage, SC=Service convenience, AD=Advertising, PS=Personal selling, FE=Financial education, ATT=Attitude, BI=Behavioural intention.

6.12 QUALITATIVE DATA ANALYSIS

This study used a mixed approach to collect data. Therefore this section analyses the data that was collected from open ended questions in the last section of the questionnaire. The researcher went through validity and reliability of this data collection methodology. Crewell (2014) suggests that not only in quantitative data collection should reliability and validity be considered, but even in qualitative research. However, the degree of employment of these two techniques differs between the two research methods. Although it is argued that the issue of reliability and validity are not essential in qualitative research, it has been realised that to improve the rigour of the research findings, there is a need to have some kind of qualifying check or measure for research (Golafshani, 2003:603).

6.12.1 Qualitative Reliability and Validity

6.12.1.1 Reliability

Kirk and Miller (1986:41) consider reliability as the replicability and consistency of findings. Franklin *et al.* (2010:355) define reliability in qualitative research as the extent to which other researchers performing similar observations in the field and analysis such as reading field notes transcribed from narrative data, would be similar interpretations and results. Reliability can be considered as the degree to which the qualitative data collection procedure and analysis produce similar results from a multiplicity of informants in the research process (Kirk and Miller, 1986:42). In qualitative research, reliability refers to the dependability and trustworthiness of the results (Franklin *et al*., 2010:356). According to Miles and Huberman (1994:278), reliability can be ensured through taking into consideration the following questions:

(1) Are the research questions clear and are the features of the study design congruent with them?

(2) Is the researcher's role and status within the site explicitly described?

(3) Do findings show meaningful parallelism across data sources?

(4) Are basic paradigms and analytic constructs clearly specified?

(5)Were data collected across the full range of appropriate settings, times, respondents, and so on suggested by research questions?

(6)If multiple fieldworkers are involved, do they have comparable data collection protocols?

(7)Were coding checks made and did they show adequate agreement?

(8)Were data quality checks made?

(9)Do multiple observers' accounts converge, in instances, settings, or, times, when they might be expected to?

(10)Were any forms of peer or colleague review in place?

The findings in this study were illuminated by the use of quotations taken directly from interviewees. The ones used were considered suitable because they had a higher frequency and they represented a majority opinion (Sunders and Rojon, 2014:7) to ensure effective reliability.

6.12.1.2 Validity

Qualitative validity refers to the situation where the researcher has to check for the accuracy of the study findings by employing certain procedures (Creswell, 2014). Creswell (2014:250) adds that validity involves trustworthiness, authenticity, and credibility. Validity is the trustworthiness of study findings

(Guba, 1981:86). To ensure validity and reduce bias and create a forum to discuss multiple truths, the researcher confidently used the following strategies.

6.12.1.2.1 Triangulation

This strategy results in the credibility and trustworthiness of results by considering a multiplicity of sources and methods (Creswell, 2014:201). The greater the compatibility obtained through triangulation of several data sources and methods the greater the confidence in the observed findings (Baksh, 2012). Triangulation was necessitated by considering the two methods of quantitative and qualitative data collection. Validity was proved in these two methods as factors considered under quantitative methods could also be raised by the rural unbanked consumers in the qualitative research using an interview guide.

6.12.1.2.2 Peer Debriefing

The researcher consulted intensively with his peers at the Harare Institute of Technology, Great Zimbabwe University, and KwaZulu Natal University to consider the validity of the qualitative questions used in this study. Guba (1981:85) and Franklin *et al*. (2010:367) note that peer briefing gives the researcher a chance to test his growing insights and to expose them to constructive criticism and feedback. Advice from peers led the researcher into taking corrective action where deviations were identified.

6.12.1.2.3 Negative Case Analysis

Tutty *et al.* (1996:126) argue that negative case analysis requests the researcher to revise his or her analysis till the research accounts for all discoveries in all of the cases. When performing a negative case analysis there is a need to look for differing cases and to increase the number of cases to resolve the questions (Franklin *et al*., 2010:368). These activities were exercised by the researcher throughout the process.

6.12.1.2.4 External Audit

After the report write up, the researcher sought the services of a neutral external person to assess the interpretations and the results. Miles and Huberman (1996) recommend the use of an external consultant to check for the accuracy of the process and the product of the study. This process was done to examine whether or not the findings, interpretations, and conclusions were supported by the observed data.

6.12.1.2.5 Rich thick descriptions

The researcher made sure of the detailed and full inclusion of everything the reader might be interested in, in order to understand the findings. Readers of these research findings are able to make judgements about the transferability of the findings from one case to other (Franklin *et al*., 2010:371; Creswell, 2014:201). The researcher should be able to compare the findings with several similar studies, as well as with the literature in mobile banking adoption. Franklin *et al*. (2010:371) recommend that the thick descriptions in the report should be included in an appendix to the study providing a full description of all the conceptual influencing factors.The following qualitative questions formed section C of the questionnaire and they are presented here and analysed.

6.12.2 What do you think should be done about the prices being charged by banks and mobile network operators to improve mobile phone banking acceptability in your area?

6.12.2.1 Price Differential

"...market segmentation, low prices should be charged to low income earners and the opposite is true..."

"...there should be price differentials to accommodate the rural unbanked population which shun costs and are of low income..."

The two quotations were extracted by the researcher following their repeated appearance from most respondents. It was the feeling of the rural unbanked consumers that there was a need to employ different prices for the same service in different places, to ensure the service was adopted depending on affordability. In view of these statements the mobile banking services could have different prices basing on customer affordability, quantity, quality, delivery and terms. Price differential encourages the marketers of financial products to practice market segmentation where the low income group will be catered for, particularly the rural people. Their sentiments revealed that those in the urban set up should be charged differently from those in the rural areas. Although segmentation is criticised by several marketing gurus for it being expensive as different marketing mixes will need to be created, it must be borne in mind that rural people take it as advantageous. Therefore to encourage adoption and use of mobile banking services, the mobile network operators and banks should engage such strategies raised by their potential customers. The researcher could not find this insight from the review of related literature, so this is a clear contribution to this study.

6.12.2.2 Price Transparency

"… service charges should be very low…people need to be educated about price information of mobile banking…"

"...the prices need to be complete and appealing... they should be communicated clearly explaining how they come into being…"

These extracts reveal that the rural unbanked consumers were concerned about the need for them to be educated about price information of mobile banking services and to have it communicated to them properly to ensure fairness. The increase in information access, the exposure to simplified mobile banking service transactions and the increasing communication amongst the rural unbanked could enhance their power in the market. Higher customer satisfaction can be achieved effectively when there is high price transparency and reduced customer search. Consequently the cost of evaluation of alternatives diminishes. With the emergence of more mobile phones in Zimbabwe, more information can be gathered about various products and price related information as advertised by companies via this channel. In view of these results, the rural unbanked financial consumers would only adopt mobile banking services if banks and MNOs provided transparent price information to the market.

6.12.2.3 Price Fairness

"...the charges are fair for mobile banking but with deteriorating economy, I feel the changes should be reviewed from time to time…"

"...prices of traditional banks are not fair to us as compared to mobile banking prices…"

These extracts reveal that the some rural unbanked consumers felt that the prices being charged for mobile banking services were fair compared with conventional banking prices. When customers choose a type of product or service to use, they attempt to match the price value they derive from the service and the price. When they feel that there are unfair practices in the pricing approach such as hidden costs, they are likely to be dissatisfied, resulting in them rejecting a certain product or service. Inconsistencies in price performance due to unfair and inequitable prices may cause customers to express negative satisfaction judgement and attitude towards mobile banking thus reducing their potential to adopt the service. Generally, the rural unbanked felt that mobile banking prices appeared better than traditional banking in which they were charged hefty prices.

6.12.2.4 Price Reduction

"...they charge low prices as compared to other banking facilities so that customers would afford using such savings..."

"...the prices of mobile phone banking should be slightly lower than traditional banking so much so that everyone should accept the system..."

"...in order to improve mobile phone banking in my area, I think the banks must reduce their prices to a low value and this will enable them to withdraw their money, airtime at lower rates..."

The above extracts provide testimony that prices on banking facilities and mobile banking services should really be decreased. Several other extracts were left out of being written here but they bore the same imprint of price reduction. These respondents formed about 30% of the respondents. They were of the view that with reduced prices, rural unbanked consumers were likely to form positive attitude toward mobile banking services. From the first extract, the respondents felt that low prices should be charged for mobile banking services as compared to other banking facilities to improve affordability, thus resulting in more take up of the system. For mobile banking services to be adoptable, respondents felt that the prices charged for the service needed to be lower than the charges they were exposed to during their experience with conventional banking.

6.12.2.5 Price Monitoring and Control

"...the prices should be monitored centrally and controlled by statutory board such as POTRAZ..."

"...regulate tariff for sending and transferring money..."

"...prices need be regulated and controlled..."

Price regulation and control has been seen as another measure that may promote the penetration of mobile banking services into the rural areas in Masvingo province. Since mobile banking is a new banking model its fundamentals and mechanisms are well understood by most ruling governments. The pricing of models might be impacting on the mobile banking services adoption and use. POTRAZ is the watchdog of the telecommunication industry in Zimbabwe. The view that POTRAZ should step in is a welcome but it must be understood the players in the mobile banking system are complicated and they originate from complicated industries. Mobile banking involves the banking industry, the telecommunication industry, and mobile network agents.

6.12.3 Describe the factors that you think are important to you in order to accept and use mobile phone banking.

6.12.3.1 Convenience

"...mobile banking is convenient...anytime anywhere where there is network... it is a good way of sending saving money..."

"...by using mobile banking increases convenience and I can do banking while sitting at home...not to visit brick and mortar bank...can transfer my finds easily from my account to someone...can pay bills electronically and by airtime..."

"...convenience, you can access your account at any place any time..."

In the above excerpts, rural unbanked consumers viewed mobile banking services as bringing a lot of convenience to their world as they can transact anywhere, everywhere and anytime. The convenience could be in the form of saving time and even effort, to check balances, withdraw and deposit money, sending and receiving money.

6.12.3.1 Security

"...safety as money will be secured. There is no need for stocking cash to make transactions. With pin number facility someone cannot access the service in any case..."

"...it is safe and convenient...make life easier..."

The extracts indicate that respondents felt mobile banking is a safe, risk free, and secure model of servicing customers. Security has been raised as a concern worldwide of transactions that are done through the application. Contrary to this, the rural people in Zimbabwe felt that the mobile phone system is secure and is highly confidential about information kept in the system. They believe that as long as their PIN security numbers are not divulged to anyone or stolen, their details will be kept safely.

6.12.4 Explain promotional activities or incentives that should be provided by banks and mobile network operators to promote mobile phone banking in your area.

6.12.4.1 Discounts

"...banks and mobile network operators should discount customers who frequently use their services even by lowering their voice calls and messages..."

"...MNOs should give discounts or give some interests on balances that stay for long periods on phone accounts..."

"...they should provide incentives to new clients...people tend to accept products if they are attached with a benefit..."

Evidence from the above excerpts reveal that the offer of discounts has the ability to attract new clients and already existing clients to new products. The banks and MNOs need to adjust their basic prices to motivate customers for certain responses. So for the rural unbanked consumers to adopt mobile banking, there is need for banks to offer discounts on certain financial services. The last extract indicates that incentives may lure new clients, while the rural unbanked consumers felt that for the acceptance of new products there is a need to attach incentives.

6.12.4.2 Educate the Rural People

"...bring in marketers to explain the importance of mobile banking to customers in rural areas..."

"...massive education campaigns through schools and community forums. There should be information material readily available to public places or markets..."

"...people should be educated on mobile banking advantages and disadvantages..."

"...giving free knowledge about mobile banking to rural customers..."

"...educating the people about mobile banking, use adverts to encourage people to adopt mobile banking, clearly outline the performance and benefits of mobile banking..."

The above extracts indicate that respondents felt that the rural people needed to be educated to ensure that they were aware of the mobile banking system. The rural unbanked felt that for the rural people to adopt and use mobile banking there is a need to educate them in both schools and communities halls about how to use them and about the advantages and disadvantages. Lack of adoption seemingly happens when there are no marketing drives that are aimed at educating the rural people on the importance of using mobile banking. With these extracts in mind, it is recommended that the Securities Commission need to take an aggressive marketing drive into rural areas teaching and educating the rural folk about mobile banking adoption programmes that will ensure that the rural people will have the chance to accept such innovative banking initiatives.

6.12.4.3 Corporate Social Responsibility

"...they can partner with other sporting activities or sponsoring of fun activities…"

"...sporting activities in rural areas, entertainment activities…"

The above excerpts indicate that local banks and MNOs should involve themselves in social activities that are meant to let the rural unbanked consumers participate in sporting activities that are meant to promote the use of mobile banking. The social activities should be run under a banner which has a theme(s) on advertising and promoting the adoption and use of mobile banking services in the rural areas. It must be noted that corporate social responsibility has the fundamental motivation of funding social and environmental activities which would be just as good as promoting their public relations thus promoting their brand positions and reputations.

6.12.3.4 Advertising for Awareness

"...create awareness, most people in the rural areas are not familiar with the programme…"

"...run road shows to advertise in the growth points and shopping centres…"

"...outreach programmes to the rural people…"

The above extracts from the rural unbanked consumers acknowledged that advertising was essential to ensure awareness is created in the rural areas. Lack of adoption sometimes could be due to a lack of awareness in the rural areas. So it is felt that roadshows and outreach programmes should be bankrolled in both growth points and shopping centres in Masvingo province. The more the awareness, the higher is likely to be the propensity to have more willingness to adopt and use mobile banking services.

6.12.4.4 Partnerships between MNOs and other companies

"...allow employers to pay their employees using mobile banking…"

This excerpt featured a lot in most responses as the rural unbanked people felt that if MNOs partner with some companies to ensure that salaries and wages of employees are paid through the mobile banking channel that would encourage adoption because everyone would have to access his/her money through the same channel. If the companies make it mandatory, obviously every employee in Masvingo province would have to adopt mobile banking services.

6.12.4.5 Promotional Prizes

"...give out T-shirts and handsets to already and interested customers..."

"...commissions to be raised high to motivate mobile banking and networks to be at most reliable..."

"...internet data and free airtime voucher..."

"...giving rewards to most frequently transacting people per month..."

Some respondents felt that promotional prizes are significant in attracting people to adopt and use mobile banking. Free internet data bundles and free airtime vouchers may encourage and motivate the rural unbanked consumers to adopt mobile banking services. Customers who frequently use mobile banking transactions will need to be rewarded more than those with few transactions. This will go a long way to attracting and motivating people to use the new banking initiative in the rural areas. The most important value proposition when offering prizes is to effectively and properly align them with the target market, otherwise the promotion will be a failure or underperform.

6.12.5 What do you think banks and mobile network operators must do to improve mobile phone channels to deliver banking services to rural areas?

With regards to above question, respondents raised four critical distribution factors which comprised network coverage, use of alternative power, promotional activities targeted at the distribution members, and an increase in network agents.

6.12.5.1 Network coverage
"...banks and mobile money operators should build more banks near clients in growth points and make more boosters for all networks in rural areas..."

"...improve network coverage and signals as well as improve product knowledge..."

"...I think mobile banking operators should improve the availability of their networks because sometimes it's not easy to come online and people need agents to operate 24/7, so it will give convenience and sometimes the network is down...".

The above extracts reveal that respondents are concerned about the current status in network coverage. These results indicate that unbanked consumers in rural areas face serious network problems which

should be addressed if mobile banking channels are to be improved through opening them up. They believed that banks need also to be in close proximity to ensure that financial services are available to the rural people, as they are also important distribution channel members. These feelings concur with the findings in the closed-ended question on network coverage, but these extracts uncover the issue of the use of more boosters to encourage the use of mobile banking services.

6.12.5.1 Use of alternative power

"...there is need for other sources of power in rural areas for boosters..."

"...put more boosters and make electricity available in rural areas..."

From the analysis of results these two extracts were quite common from respondents. The results show that the problem of electricity shortage in both the growth points and the remotest parts of Masvingo province is a major problem affecting the smooth flow of the mobile banking channels. The respondents suggested that Mobile Network Operators (MNOs) should seek alternative sources of power such as generators at most booster base stations for all networks. This notion is a critical one since the researcher could not find this from the review of related literature.

6.12.5.2 Promotional activities (Trade promotions)

"... intense marketing skills toward distribution members..."

"...develop promotional activities targeted towards network agents to encourage them to use more banking facilities..."

Most respondents were concerned that for a mobile banking distribution channel to be well exploited, there was a need for mobile network operators, Econet, Telecel, and Netone, to run promotions that were heavily targeted towards the network agents. This would promote the wider use of mobile banking services as the agents would be working hard to win some promotional prizes. Intense marketing skills mean that the channel members such as network agents and airtime distributors and wholesalers need proper training to ensure that they effectively deliver the service to the rural unbanked people. This information was not captured in closed-ended questions so it is a contribution to this study.

6.12.5.3 Mobile smart phones and increase in network agents

"...increase network agents and improve network coverage..."

"...they must deliver and provide cheap and affordable smart phones which are fine for banking facilities..."

"…much cheaper cell phones from China should be available in most network agents…"

The respondents expressed their need for handset selling companies to provide more but inexpensive phones to the rural markets, because smart phones have a greater ability to deliver the mobile banking services with efficiency and effectiveness. These extracts above imply that for the mobile banking distribution channels to be utilised fully, there is a need for availability of cheaper and more affordable phones since the rural unbanked consumers are people of low income. This request can be achieved given that there are quite cheap cell phones from China and Zimbabwe is already a heavy importer of them. Therefore what is needed is a massive distribution of the phones through increased agent networks.

The fact that the respondents feel that network agents need be increased is a good thought since an intensified number of these agents in the market will encourage easy availability of the services. Awareness will also be improved and many rural people will want to try the new mobile banking opportunity.

6.7 CHAPTER SUMMARY

This chapter presented results from both the quantitative and qualitative approaches. The chapter quantitatively considered socio-demographic descriptive statistics, the correlation between demographic variables, testing of differences, testing of correlations between constructs, analysis of predictive independent variables on dependent variables, testing of a sub-hypotheses set in Chapter One and finally considered the structural patterns of factors (common factor model). It is important to note that construct reliability and validity were tested to ensure that the results could be generalised. The qualitative results analysis yielded some factors that could not be captured under quantitative research method. The next chapter involves the discussion of the results found in this chapter.

CHAPTER 7

DISCUSSION OF RESULTS

7.1 INTRODUCTION

The main purpose of this study was to explore the influence of the marketing mix tools on attitude and behavioural intention toward mobile banking adoption by the rural unbanked consumers in Masvingo province. This chapter discusses the extent to which the study has been able to respond to the research question. It critically examines the extent to which the empirical research supports or not supports the relationships postulated in the Mobile Banking Adoption Conceptual Model (MBACM). The research findings as found in the previous chapter, will be discussed in line with already known information about the problem at hand and the new insights emerging from this study. Therefore this chapter links the research findings with the visited literature on mobile banking adoption and research methodology. In addition, the chapter is organised into five sections, namely: the demographic discussion section, the descriptive statistical analysis section, the bivariate results discussion section, and lastly the multivariate results discussion section.

7.2 MAIN RESEARCH QUESTION

Can the extension to and adoption of mobile banking services by the rural unbanked through the effective use of the marketing mix tools lead to increased financial inclusion in Zimbabwe?

7.3 RESEARCH QUESTIONS

(1) Do financial product attributes have an effect on attitude to adopt mobile banking by the rural unbanked consumers?

(2) What is the impact of price satisfaction dimensions on attitude to adopt mobile banking by the rural unbanked consumers?

(3) Do distribution elements have an effect on attitude to adopt mobile banking by the rural unbanked consumers?

(4) What is the influence of promotional elements on attitude to adopt mobile banking by the rural unbanked consumers?

(5) Is there any relationship between attitude and behavioural intention to adopt mobile banking by the rural unbanked consumers?

7.4 DEMOGRAPHIC PROFILE DISCUSSION

This section discusses the general demographic characteristics results. Kotler and Keller (2012:238) note that socio-demographic variables are particularly essential to marketers because they are in good association with consumer needs and wants; therefore they strongly impact buyer behaviour. Therefore, their study and understanding are critical for this research. As indicated in the results, it is found that younger rural unbanked consumers (mean=29 years, standard deviation=12.75 years, mode=23 years and median=28 years) participated in this study than their older counterparts. This means that more young people are interested in new technology than mature people, as indicated by their willingness to participate. In similar studies that support this finding, users of mobile banking are young people with advanced cell phones and often these people are less than 30 years of age (Venkatesh and Morris, 2000, Mattila, 2003, Cruz *et al*, 2010, Puschel *et al*., 2010, Al-Jabri, 2012). In Finland, Laukkanen and Pasanen (2008) found that mobile banking users were mostly middle aged (30-40 years). These results are consistent with Tan and Teo (2000) whose study indicated that 64.1% of the respondents were between 20-29 years and Nasri (2011:146) who concluded that 71% of respondents were between the ages of 25-45 years in his study in Tunisia.

It must be noted that people alter their behaviour toward goods and services as they grow older (Kotler and Keller, 2012:127). In a similar fashion, the younger unbanked consumers may change their buying behaviour toward mobile banking services because as they grow older, they may move from mobile banking satisfaction to being unsatisfied with the service, as they are likely to search for new channels of distribution.

In this study, more males (70.2%) participated than women (29.8%). In a study carried out in Finland by Mattila (2003:4) also indicated that there were more males (50.6%) than females (47%) and 2.3% accounted for missing information. Tobbin (2012:80) conducted a similar study in Ghana, where he found that 63% of the rural unbanked sample constituted males and 37% were females. This may indicate that men need to pursue more risks than females and that they are in need of trying novel products.

Regarding the level of education, the results showed that 95.7% of the respondents had an average educational of ordinary level (O'Level) which showed a high degree of literacy. These results complement the general literacy rate of Zimbabwe currently pegged at 92% (UNDP, 2010). In view of the educational level of the rural unbanked, there is a likely chance that learning how to use mobile banking would not be difficult for this market segment. Research shows that better educated people intend to and do use mobile banking (Mattila, 2003; Sulaiman *et al.*, 2007:161).

Income levels of 65.2% of the participants were below $200. This could so because most people in Zimbabwe are educated but are jobless. The employment level is at 9% nationally (ZIMSTATS: 2013). This market segment of rural unbanked consumers are unlikely to purchase expensive cell phones due to their restricted incomes. Therefore marketers need to be careful about income sensitive products such as mobile banking that may in future require expensive cell phones such as smartphones. This level of income is most likely to inhibit mobile banking usage although the intention levels could be very high from this market segment.

Of all the interviewed rural unbanked consumers, 36.1% were unemployed. This factor is also likely to impact negatively on actual usage of mobile banking.

7.5 DESCRIPTIVE STATISTICAL DISCUSSION

The descriptive statistical analysis from the study findings revealed that the overall scale Mean±SD was 46.846±10.854 out of a possible score of 60. This grant mean rating indicates that the rural unbanked consumers felt that financial product attributes were essential when adopting mobile banking. They felt that perceived usefulness was the most important financial product attribute amongst perceived ease of use, trialability and system accuracy. It implies that as long as the mobile banking system was associated with some benefits or relative advantages such as cost savings, they were prepared to adopt it. The least rating under financial product attribute was trialability with a mean rating of Mean±SD was 3.3579±1.917. As other descriptive results have indicated, the rural unbanked are not worried about trialability simply because they are highly literate. Trying new products without trial seemed not difficult for them. According to the technology acceptance model (TAM), Aboelmaged and Gebba (2013:39) state that perceived usefulness influences the attitude formation toward system usage. Mobile banking improves the performance and efficiency of financial products for the rural unbanked.

The rural unbanked consumers indicated that both price-quality ratio and perceived costs were the most important variables in attitude formation toward mobile banking adoption (Mean=3.7926, SD=1.00526 and Mean=3.7926, SD=1.0886 respectively). These results imply that the respondents expected mobile banking services to match their price expectations. Consumer purchasing behaviour and choice of products is often influenced by price, quality, and perceived value (Zeithaml, 1988:2). Consumers rely more on the price as a quality cue in various product or service categories.

These results for perceived costs might imply that the rural unbanked found mobile banking services much cheaper than traditional banking. The inflationary period from 2003 to 2008 hardened both rural

and urban financial product users to the extent that the impact of high pricing has been absorbed by Zimbabweans. Overall, the rural unbanked agreed that price satisfaction dimensions positively influenced them to adopt mobile banking, as the overall scale Mean ± SD was 39.361±8.606 out of a possible scale 55.

7.6 BIVARIATE RESULTS DISCUSSION

7.6.1 ANOVA Results and Association Among on Socio-Demographic Variables Discussion

It has been established that segmentation of the markets can be done using socio-demographic variables (Kotler and Keller, 2012:238). When segmenting markets, heterogeneous markets are divided into small segments of homogeneous status. The aim is to ensure markets are of similar needs. For this study, one way ANOVA was used to establish the differences that could have existed. Similar needs could be tested using the correlation between the socio-demographic variables and the constructs under study.

In most cases considering the Independent *t*-Tests and one way ANOVA, results revealed that there are no significant differences between demographic variables and the constructs used in this study. It therefore means that the power of segmentation is weakened given such results because the perceptions of rural unbanked consumers are similar. Segmentation is a process of grouping people into different needs and wants (Perreault and McCarthy, 2005:G10; Kotler and Keller, 2012:253). When the market is segmented, the Zimbabwean banks and Mobile Money Operators (MNOs) will be required to develop separate products or services and even marketing mixes (Kotler and Armstrong, 1991:673). In view of these study results, Zimbabwean banks and MNOs will need to pursue an undifferentiated marketing strategy which ignores market segment differences and where they vie for the entire market with distinctively one market offer (Kotler and Keller, 2012:679).

In cases where demographic variables show distinct differences there is need to partition the market according to the specific demographic variable that is causing the variations. In that scenario, differentiated marketing strategy would be pursued by the Zimbabwean banks and MNOs. This means that different mobile banking services will need to be developed, as well as the marketing mixes needing to be distinct for each market segment.

A one way ANOVA results indicated that there were significant gender, age, and education differences regarding mobile money usage by the rural unbanked in Masvingo province. Mobile money is not the same as mobile banking. To differentiate the two, mobile money normally takes place when people receive, send and transfer money from their phones to other people and these transactions are controlled by the MNOs. But when these transactions are done via the Mobile Network Operators (MNOs) and

linked to a real bank account then in this study it becomes mobile banking. The sample involved in this study comprised rural people without bank accounts but already participating in mobile money transactions, and some not being involved at all. Regarding mobile banking usage, the independent t-Test revealed mean ratings for males (Mean=1.13, SD=0.457) and female (Mean=1.29, SD=0.341), indicating that significantly more female customers were using mobile money than male rural unbanked consumers (F=38.084, p=.000). These results might be due to the need of females in the rural areas for taking more risks than males. However, findings by Venkatesh et $al.$ (2000:49) revealed that there were distinct gender differences in attitude towards new technology adoption and usage. The decisions of males in using new technology were more strongly influenced compared to females' decisions (β=0.59, p<0.001 against β=0.34, p<0.01 respectively). In a similar study, Yu (2012:116) concluded that gender did not significantly influence behavioural intention to adopt mobile banking (β=0.138, p>0.01) in Taiwan. So this finding is a departure from the current study's findings.

In a one way ANOVA to determine mobile banking usage differences attributed to age, the results indicated that there were significant differences recorded (F=6.443, p=0.012). These results means that education had been important for the rural unbanked consumers when using mobile money in Masvingo provinces. Earlier and more recent studies regarding the influence of age have been done (Mattila, 2003:6; Kolodinsky et al, 2004:251; Sulaiman et al., 2007:162; Yu, 2012:116; Arvidsson, 2014:164). Mattila (2003:6) concluded that users of mobile banking were in a particularly young age group of 25 to 34 years. 38% of the respondents were moderate users while old people were non-users of mobile banking service. In a similar study, Kolodinsky et $al.$ (2004:251) found that participants who were over 65 years old had a low propensity for adopting e-banking in the United States of America and that the youngest age groups were the more likely adopters of electronic banking

A correlation of non-parametric variables between age and mobile money usage revealed a negative and statistically significant relationship (r=-0.173, p=0.003) at 1% confidence interval. These results mean that as the respondents became older, the more negatively they developed their attitude toward mobile money usage. In a similar study done in services marketing, Caemmerer (2014:1772) found that the age of participants was negatively correlated with the perceived level of congruence between public sponsor and the event. Sulaiman et al. (2007:163) concur with this study's results by saying that in Malaysia, young groups were keener to use mobile banking.

These results concur with the finding by Arvidsson (2014:164) who concluded that age had a positive and statistically significantly predictive power to influence the use of mobile payment services in Sweden. This was a true testimony that older people had a positive attitude formation toward mobile payment

systems. Yu (2012:116) in Taiwan concluded that age significantly influences behavioural intention to adopt mobile banking

In this study, the results exhibited that there is a positive and statistically significant relationship between gender and mobile money usage by the rural unbanked consumers (r=0.189, p=0.001) at 1 % confidence interval. These results reflect that both males and females find mobile money to be moderately important in their daily lives. A departure from these results is as discovered in the United States of America by Kolodinsky *et al.* (2004:251), who found no significant relationship between gender and e-banking usage.

In the present study, a correlation was performed between the non-parametric variables education and mobile money usage and the results revealed that there was a negative and statistically significant correlation between the variables (r= -0.210, p=0.000) at 5% confidence interval. This inverse relationship revealed that as people became more educated the less willing they became to use mobile money. These results contradict the finding by Kolodinsky *et al*. (2004:252) that the level of college students' education was most likely to influence them to use e-banking. Mattila (2003:6) also found that the better educated consumers had a greater intent to adopt mobile banking than the uneducated consumers in Finland.

7.7 MULTIVARIATE RESULTS DISCUSSION (Multiple regression)

7.7.1 Objective 1 and Product Attributes Sub-hypotheses

The main objective of this section is to determine the influence of product attributes on attitude to adopt mobile banking services by the rural unbanked consumers. However, accompanying this objective and in line with the research sub-question **"Do financial product attributes have an effect on attitude to adopt mobile banking by the rural unbanked consumers?"** guiding this section of the study were the following discussed sub-hypotheses of product attributes.

H1a: Perceived usefulness has a positive influence on attitude to adopt mobile banking by the rural unbanked consumers.

The multivariate regression analysis reveals that the linear regression equation between independent latent variable perceived usefulness and dependent latent factor attitude formation toward mobile banking services is associated with a positive and statistically significant relationship (β=0.148, t=2.549, p<0.05). These results imply that the higher the level of perceived usefulness of the mobile banking system, the more will be the positive attitude formation toward mobile banking services of rural unbanked consumers.

It means that the rural unbanked consumers derive value from the adoption and use of mobile banking in Zimbabwe.

Perceived usefulness strongly influenced attitude and it is therefore suggested that mobile phones can improve the mobile banking user's productivity, efficiency in use and performance, and enhance the effectiveness of the system. The results uncover that perceived usefulness is consummately significant in assessing and grasping the individual rural unbanked consumer's responses and attitude to mobile banking system. The results reveal that the rural unbanked consider perceived usefulness of mobile banking to be better and hence were prepared to accept the new idea quickly. When positioning products like mobile banking, there is a need for the management to advertise, strongly emphasising the relative advantage of the system against traditional banking, in order to quicken adoption. **Therefore, in line with the main research question these results reveal that the perceived usefulness of mobile banking services can extend and promote financial inclusion in Zimbabwe.**

These results are in agreement and consistent with earlier and previous studies. In his study of technology acceptance, Davis (1989:322) revealed a significant relationship between perceived usefulness and attitude formation toward new technology. Venkatesh and Bala (2008:290-291) also revealed in their study that perceived usefulness was the strongest predictor of behavioural intention to adopt new technology (β=0.56, p<0.001)

A similar study by Aboelmaged and Gebba (2013:45) concluded that perceived usefulness positively and significantly impacted attitude to adopt mobile banking in Dubai (β=0.51, t=6.279, p<0.001) which was in line with Davis (1989:332). The research carried out in South Africa validated that in WIG mobile banking perceived usefulness had a strong influence on attitude (β=0.57, p<0.001) (Raleting and Nel, 2011:218).

These results are a deviation from the discoveries of Jackson *et al*. (1997) and Bojad and Nidumoulu (1998) who found insignificant relationships between perceived usefulness and attitude formation toward new technologies. Additionally, Lucas and Spitler (1999:303) indicated that relationships could not be developed between perceived usefulness and attitude and behavioural intention to use new technology.

H1b: Perceived ease of use has a positive influence on attitude to adopt mobile banking by the rural unbanked consumers.

In a multiple regression analysis, the linear regression equation between independent latent variable perceived ease of use and dependent variable attitude formation toward mobile banking, reveals that there is a positive and statistically significant relationship (β=0.544, t=9.795, p=0.000). These results imply that the higher the level of perceived ease of use of mobile banking, the more will be the attitude formation of the rural unbanked consumers toward mobile banking. It therefore means that rural unbanked consumers feel that mobile banking seemed easier to them to use given the strength of the relationship. Management need to ensure that marketing communications targeted toward the rural unbanked should strongly emphasise the level of complexity of the mobile banking services. **This finding indicates that as long as mobile banking services are less complicated, the extension of financial services to the rural unbanked will be easier, thus promoting financial inclusion in Zimbabwe.**

These results are consistent with a study by Raleting and Nel (2011:218) in whose study in South Africa revealed that there was a positive and statistically significant relationship between perceived ease of use and attitude (β=0.197, p<0.05). In addition, Venkatesh and Bala (2008:290-291) found a significant relationship between perceived ease of use and behavioural intention although it was weaker than perceived usefulness. **In line with this finding, this study contributes to the current body of knowledge in the mobile commerce context, as it has brought new insights about the low income groups as previous studies did not focus their studies on the rural unbanked.**

In comparison with perceived usefulness, perceived ease of use shows a greater influence on attitude which is a departure from the Technology Acceptance Model results in which Davis (1989) concluded that perceived usefulness was stronger than perceived ease of use. This departure from other studies could be due to the result of the demographic variable, **high level of education**. The results on socio-demographic analysis have revealed that 95.3% of rural unbanked consumers in Masvingo province had Ordinary level and above educational qualification. Another possible plausible explanation from the results of this study is that the rural unbanked consumers are familiar with mobile phones that may improve and increase the relative advantage expected from the system. The sample in the methodology section reveals that rural people with cell phones and who already use mobile money transactions were to participate in this study. Complementary to this, a one way ANOVA was performed to determine level of education differences on mobile banking usage and the results revealed statistically significant differences (F=14.103, p=0.000). **This finding is unique, new, and contributes to the existing or extant literature in technology acceptance and use in a developing economy. It is the first of its kind in mobile banking services context in a developing world set up like Zimbabwe.**

Other studies reveal that there is no significant relationship between perceived ease of use and attitude toward mobile banking. Aboelmaged and Gebba (2013:43) found an insignificant relationship between perceived ease of use and attitude formation toward mobile banking ($\beta=0.014$, $t=0.151$, $p=0.880$). Davis (1989) concluded again that there was no significant relationship between perceived ease of use and attitude toward new technology in post training. Therefore this study is not consistent with these findings of Davis (1989).

H1c: Service trialability has a positive influence on the attitude to adopt mobile banking by the rural unbanked consumers.

In a multiple regression analysis, the linear regression equation between independent variable service trialability and dependent latent factor attitude formation toward mobile banking services reveal that there is a statistically insignificant relationship between trialability and attitude toward mobile banking ($\beta=0.018$, $t=0.360$, $p=0.719$). These results imply that the rural unbanked consumers do not consider trialability of a mobile banking service to be important when adopting it. It therefore means that they may be prepared or not, to adopt mobile banking regardless of making first attempts before actual use. The finding did not show a significant relationship with attitude formation toward mobile banking. This could be due to the fact that the rural unbanked consumers are currently non-users of the facility and therefore there appeared to be absence of direct influence on attitude.

These results are quite consistent with the findings of Kolodinski *et al.* (2004:256) who concluded that in the United States of America there was a positive and statistically insignificant relationship between trialability and e-banking adoption. Despite these studies being done in different economic sets, their levels of education seemed close to each other, thus producing comparable results. However, it must be noted that despite the insignificance of the relationship, it must be well noted that mobile commerce marketers should not ignore this influence of trialability in their marketing campaigns, for this may disturb and compromise the probability of the rural unbanked consumers' adoption of mobile banking services. Aldas-Manzano (2009) cited in Dineshwar and Steven,(2013:8) argue that due to the characteristic of mobile financial services, mobile financial services consumers are not able to attempt them before adoption**. It therefore means that the rural unbanked consumers need to adopt first before they try the mobile banking services**.

Rogers (1995:243) defines trialability as "the degree to which an innovation may be experimented with on a limited basis". These results are a deviation from the findings of Rogers (1995:243) who concluded that laggards more quickly migrate from trial level to complete use of technology adoption, than do innovators.

Another interesting finding was from the study in Brazil by Puschel *et al*. (201:404) who found a negative and insignificant relationship between trialability and attitude toward mobile banking for both non-users and users of mobile banking (β=-0.026, f^2=0.003, Q^2=0.658) and (β=-0.208, f^2=0.025, Q^2=0,589 respectively).

H1d: Accuracy of the mobile system has a positive influence on mobile banking adoption by the rural unbanked consumers.

The multivariate regression analysis revealed that the linear regression equation between the independent latent variable system accuracy and the dependent latent factor attitude formation toward mobile banking, was associated with a positive and statistically significant result (β=0.179, t=2.914, p=0.004). These results imply that the higher the level of system accuracy of mobile banking, the more will be the positive attitude formation of rural unbanked consumers toward mobile banking. System accuracy is prominent in attracting financial consumers to adopt and use mobile banking. In line with the main research question, system accuracy has the potential to extend financial services to the rural unbanked people and by so doing financial inclusion will be promoted.

7.7.2 Objective 2 and Price Satisfaction Dimensions Sub-hypotheses

7.7.2.1 The Price Satisfaction Dimensions and Prediction of Attitude Toward Mobile Banking Services

The main objective in this section is to measure the influence of price transparency, price-quality ratio, and perceived cost on attitude toward mobile banking services and the following sub-hypothesises were determined. The research question **"What is the impact of price satisfaction dimensions on attitude to adopt mobile banking by the rural unbanked consumers?"** guides this section of the study. Results for research hypothesis *H2d* are not discussed here as the items for price reliability had a cross loading problem during common factor model analysis, so it was dropped.

H2a: Price transparency has a positive influence on attitude to adopt mobile banking by the rural unbanked consumers.

The linear regression equation from a multiple regression analysis reveal that there was a statistically insignificant and inverse relationship between the independent latent variable price transparency and

independent latent variable attitude formation toward mobile banking services (β=-0.012, t=-0.303, p=0.762). These results indicate that, although insignificant, the rural unbanked consumers have a negative attitude toward mobile banking services regarding price transparency. The inverse relationship between prices transparency and attitude formation is a true indication that the rural unbanked felt that the price components were not complete and understandable neither was it complete and frank. Again, it seems there is no proper dissemination about price information to this market segment. Normally consumers evaluate prices as appropriate, useful, and unfair and unfair prices usually evoke negative and vigorous reactions by the consumers (Wruuck, 2013:6). Negative attitude formation and dissatisfaction for financial products might be as a result of customer's information behaviour and the comparisons they make when choosing alternative products. Matzler *et al.* (2006:219) argue that "customers increasingly demand open, honest and complete information" as their power increases due to improved access to information, general distrust, and increased communication between consumers themselves

In their multivariate analysis of the influence of price satisfaction dimensions on overall price satisfaction, Matzler *et al*. (2006:226) discovered that transparency of prices positively and statistically influenced the overall price satisfaction (β=0.317, p<0.001). Tong *et al*. (2013:63) argue that price transparency has a strong influence on customer satisfaction. A study by Tong *et al*. (2013:72) confirmed that service charge transparency in a retail bank positively and significantly impacted on customer repurchase behaviour in Australia (β=0.324, F=8.755, p<0.001). Both of these findings are a deviation from the current study's discovery.

H2b: Price-quality ratio has a positive influence on attitude to adopt mobile banking by the rural unbanked consumers.

In a multivariate regression analysis, the linear regression equation between independent variable price quality ratio and the dependent variable attitude formation toward mobile banking revealed a positive and statistically significant relationship (β=0.135, t=2.804, p=0.005). These results imply that the higher the perceived level of price quality ratio, the more the positive attitude formation of rural unbanked consumers toward mobile banking services and the lower the level of price-quality ratio, the less will be the rural unbanked consumers' positive attitude formation. In this regard, this relationship suggests that the prices of mobile banking met the quality needs of the rural unbanked consumers. In view of these results, banks will need to be concerned more with offering high quality services that are proportional to the prices set for mobile banking services. **In line with the main research question, price-quality ratio has the possibility to rope the rural unbanked into the financial mainstream.**

These results are comparable with previous research. Matzler *et al.* (2006:226) found that price quality ratio had the most significant influence on customer satisfaction in their study in Austria (β=0.500, p<0.001). These results concur with this study's findings. The dependent variable used in the study is different from attitude but, they have one thing in common that, when a customer is satisfied, he or she is likely to develop a positive attitude resulting in actual purchase of the product and that the reverse is true. **Based on this argument, this study brings a new contribution to mobile banking marketing fora, in that not a single study in mobile banking context has ever considered the influence of price-quality ratio on both attitude formation and behavioural intention toward mobile banking. So this is a unique contribution.**

In contrast, Somogyi and Gau (2000) in their study in Australia revealed that there was a positive and statistically insignificant relationship between price quality ratio and supplier commitment (β=0.005, t=0.082, p>0.05) which is a departure from the researcher's conclusion.

H2c: Perceived costs have a negative influence on attitude to adopt mobile banking by the rural unbanked consumers.

The multiple regression analysis revealed that the linear regression equation between independent variable perceived cost in predicting attitude formation toward mobile banking was associated with a positive and statistically significant relationship (β=0.141, t=2.804, p=0.005). These results imply that the higher the level of perceived cost the more they are prepared to adopt mobile banking. This positive relationship may mean that the rural unbanked consumers feel that the currently charged prices are affordable. This is quite a surprising result since the interviewed group was composed largely of a low income group and in view of this, the researcher had hypothesised an inverse relationship as normally found in extant literature. This market segment is in the low income group that should be price sensitive. Arguably, this result could be so because the rural unbanked suffered a lot of costs when they had opened accounts with traditional banks where they were required to produce minimum balances to maintain their accounts, had to pay high service charges, as well as having to travel long distances to deposit and withdraw money. Now with the convenience of mobile banking, a rural consumer can open an account easily by using his or her phone number, no initial deposit, little charges for banking the money, and transacting in the home thus bringing a lot of financial salvation to the rural unbanked people. This argument is supported by the current move by ECOCASH a subsidiary of Econet that has joined hands with Steward Bank to offer the mobile banking service. They just converted the cell numbers of most willing client base into bank accounts at no cost because the numbers were already existing. Another possible plausible explanation is that Zimbabweans had become used to the world's worst inflationary

period, and it became normal to accept high prices. Another reason could be that the items used to measure perceived cost construct were made on a comparative basis with the perceived costs of traditional banking which they considered to be expensive. This why there was a positive and statistically significant relationship between perceived cost and attitude toward mobile banking adoption. In addition, why the rural unbanked felt that mobile banking services were less costly could be due to the current inflation rate of -2.31% which is in a deflationary horizon (Reserve Bank of Zimbabwe, 2016). **The affordability of mobile banking services against traditional banking can successfully extend financial products to the rural unbanked people in Zimbabwe as indicated by these results.**

In a similar study in Finland, Mattila (2003:6) found that the lower costs of conducting mobile banking was the most encouraging factor (Mean=4.38, SD=2.15). Therefore, the results of this study are in tandem with Mattila's (2003) discovery. In comparing the two studies, Mattila (2003) carried out her study in a developed economy where people do not feel the impact of prices unlike in this current study where the low incomes are expected to develop a negative attitude. **This finding therefore is unique and new in a developing country and therefore makes a contribution to the body of knowledge.**

In contrastingly, Raleting and Nel (2011:218) concluded that perceived cost had the most significant negative influence on attitude to adopt mobile banking in South Africa (β=-0.191, p<0.001). In support of this finding, a study by AlSoufi and Ali (2014:8) found that perceived cost had a negative but statistically insignificant relationship with behavioural intention to adopt mobile banking in Bahrain (β=-0.059, p>0.001).

7.7.3   Objective 3 and Distribution Elements Sub-hypotheses

7.7.3.1 The Distribution Elements and Prediction of Attitude Toward Mobile Banking Services

The objective was to measure the influence of trust, network coverage, and service convenience on attitude toward mobile banking services and the following sub-hypotheses were established**.** The research question **"Do distribution elements have an effect on attitude to adopt mobile banking by the rural unbanked by the rural unbanked consumers?"** guided this section of the study. Sub-hypothesis H3d is not discussed here because in factor analysis it failed to load well and items D2 and D3 were heavily loaded on service convenience and therefore were considered as items of service convenience construct.

H3a. Trust has a positive influence on attitude to adopt mobile banking by the rural unbanked consumers.

In a multiple regression analysis, the linear regression equation between the independent latent variable trust and the dependent latent variable attitude toward mobile banking services uncovered that there is a positive and statistically significant relationship (β=0.285, t=3.760), p=0.000). These results imply that the more the trust in the mobile banking system by the rural unbanked, the higher will be their attitude formation toward mobile banking. However, the lower their trust, the smaller their attitude formation toward mobile banking services. Since mobile banking is a complicated system for new users there is a need to initially develop trust in the system, the service providers, and the service agents. These results show that rural unbanked consumers have the will to develop a great deal of trust in mobile banking services, provided they are available to them, as there is a strong relationship between trust and attitude formation toward mobile banking. Personal selling through demonstrations of how the rural consumers may use the service complemented by trialability can build a lot of trust in the mobile banking system. Trust assists consumers to mitigate perceptions of risk and uncertainty in adoption of and use of technology (Chinomona, 2013:464). **In line with the main research question, these results reveal that trust in mobile banking services by rural people will enable to financially include the under-privileged.**

These results are quite consistent with earlier and recent studies of trust and attitude in mobile banking and e-commerce adoption and use (Luo *et al*, 2010:224; Riksbank, 2011; Ng'weno, 2012; Arvidsson, 2013:157). In a study carried out by Arvidsson (2013:157), the results exhibited a statistically significant relationship between trust and attitude toward mobile payments systems in Sweden (β=0.214, F=2.657, p<0.05). Similar to this finding is from Jourbert and Belle's (2013:13) study in which it was concluded that trust had a strong correlation with behavioural intention to adopt mobile banking in South Africa.

H3b: Network coverage has a positive influence on attitude to adopt mobile banking by the rural unbanked consumers.

The multiple regression analysis exposed the linear regression equation between independent latent variable network coverage and attitude toward mobile banking services being associated with a negative and statistically insignificant relationship (β=-0.078, t=-1.035, p=0.302). Therefore there is an inverse relationship between network coverage and attitude toward mobile banking services. These results mean that the level of network coverage does not impact the attitude formation of rural unbanked consumers toward mobile banking. When adopting mobile banking services, rural unbanked consumers do not matter whether or not network coverage is present or not. It means that the rural unbanked consumers in Masvingo province may adopt mobile banking regardless of whether or not network coverage is present.

This reveals that network coverage available at the time of this study was not dependable and even sparse, so that the rural unbanked consumers may not have been prepared to adopt mobile banking services.

The results are not consistent with previous studies. GSM Association (2008) found that when more people are connected, they will drive more value from the service and will be more willing to adopt it. However, when financial consumers experience delays in response, unprecedented disconnections, and lack of access, they are likely to resist the use of mobile banking services (Shin, 2010 cited in Ozer *et al*., 2013:431).

In contrast, the study carried out by Ozer *et al*. (2013:438) indicated that there was a statistically significant and positive relationship between network availability and perceived risk and intention to adopt mobile banking services in Turkey (β=0.390, t=7.62, p<0.05). However, mobile banking existence is notably heavier in urban set-ups than in rural areas and network signals are very sparse in Zimbabwe. Additionally, the Zimbabwean government has encouraged the MNOs to penetrate the rural areas with more network coverage and with the support of the government in encouraging network sharing, there is likely to exist a better environment conducive to mobile banking services.

H3d: Service convenience has a positive influence on attitude to adopt mobile banking by the rural unbanked consumers.

The multivariate regression analysis revealed that the linear regression equation between independent latent variable service convenience and the dependent latent variable attitude have a positive but statistically insignificant relationship (β=0.053, t=0.982, p>0.05). These results reveal that the extent of service convenience does not affect the attitude formation of rural unbanked consumers toward mobile banking services. As rural unbanked consumers try new products it does not matter whether or not there is service convenience in terms of access in homes or 24/7 service. These results arguably reflect that the rural unbanked consumers in Masvingo province would adopt mobile banking services regardless of the presence of the service convenience of the system.

These results do not concur with previous studies. In Tunisia, Nasri (2011:149) concluded that service convenience was the strongest predictor of attitude and behavioural intention toward mobile banking (β=0.264, p<0.01). Perceived service convenience is associated with service availability24/7, access in homes, international access, a variety of services and savings in time. Similarly, in Jordan, Asfour and Haddad (2014) concluded that there was a positive and statistically significant relationship between service convenience and e-satisfaction in mobile banking (β=0.781, t=23, 679, p<0.05). Linked to service

convenience in their study was the ease of navigation. It was found that this construct positively and significantly impacted on customer e-satisfaction (β=0.874, t=34.061, p<0.05).

7.7.4 Objective 4 and Promotional Tools Sub-hypotheses

7.7.4.1 Promotional elements and prediction of attitude toward mobile banking services

The objective was to establish the relationships between advertising, personal selling, financial education and attitude toward mobile banking and the following sub-hypotheses were formulated.

H4a: Advertising has a positive influence on attitude to adopt mobile banking by the rural unbanked consumers.

In a multiple regression analysis, the regression equation between independent factor advertising and dependent latent variable attitude toward mobile banking services revealed a positive and statistically significant relationship (β=0.172, t=3.075, p=0.002). These results indicate that the more the advertising exposure and expenditure, the higher will be the level of attitude formation toward mobile banking services and the lower the advertising exposure and expenditure, the less will be their attitude formation toward mobile banking. **These results in line with the main research question reveal that the extension of mobile banking services to the rural unbanked consumers is possible, provided companies place more emphasis on effective advertising.** Al-Hasan *et al.* (2013:286) support this idea of advertising by saying that banks need to establish and implement public awareness initiatives in order to ensure the growth of internet banking usage. Advertising has an impact on attitude in that it has the ability to convey information about the possible problems associated with mobile banking thereby educating the rural unbanked. This reduces the potential risks of adopting and using the mobile banking service. It also reduces the information search costs as according to the decision making process (Schiffman and Kanuk, 2004:554).

These results are also consistent with earlier and more recent studies on mobile banking services adoption. Literature supports this finding of a significant relationship between advertising and attitude formation. Dineshwar and Steven (2013:12) concluded that informative advertising strongly created awareness in Mauritius. In Malaysia, Daudi *et al.* (2011:260) found that awareness through advertising significantly influenced attitude and intention toward mobile banking services. Moriarty *at al.* (2014:144) found that advertising persuasively influenced attitude and motivation to adopt and use a product.

This finding that advertising is directly related to attitude formation extends the knowledge that the more the advertising expenditure and exposure to potential users of a product or service, the more the sales.

H4b: Personal selling has a positive influence on attitude to adopt mobile banking by the rural unbanked consumers.

In multiple regression analysis, the regression equation between independent latent variable personal selling and dependent latent variable attitude toward mobile banking services indicated a positive and statistically significant relationship (β=0.207, t=3.580, p=0.000). These results show that the more the level of personal selling through effective demonstration, the higher will be their attitude formation toward mobile banking among the rural unbanked consumers. Demonstration is especially significant when the rural unbanked consumers try mobile banking services for the first time. **These results indicate that personal selling is able to extend mobile financial services to the rural unbanked thus being in line with the main research question of financial inclusion.**

These results are consistent with previous studies in which personal selling was found to be a significant predictor of attitude formation. Consumers develop a favourable or unfavourable attitude toward sales people, their products, and their companies (Parumasur and Roberts-Lambard, 2013:191). Customers who develop a positive attitude toward sales people will also form a favourable liking for the products or services. A significant and positive relationship was established between personal selling and attitude formation and satisfaction (Khan, 2012:4, Grewal and Sharma, 2013:13).

H4c: Financial education has a positive influence on attitude to adopt mobile banking by the rural unbanked consumers.

The results from multiple regression analysis reveal that the regression equation between the independent latent variable financial education and dependent variable attitude toward mobile banking have a positive and statistically significant relationship (β=0.207, t=3.001, p=0.003). These results imply that the higher the level of financial education, the more the level of attitude formation toward mobile banking by the rural unbanked consumers. To increase adoption there is a need to bankroll a considerable number of programmes that will inculcate financial education into the minds of the rural financial services consumers. If a few programmes and expos are not done well and effectively, adoption of mobile banking services will be derailed. The Securities Commission of Zimbabwe has been quoted as failing to run financial education programmes around the country (Centre for Financial Inclusion, 2013.online). Financial education creates awareness or the use of new and unique technological services and this, as a result, encourages adoption. It must be seriously noted that financial education and training should not be restricted to current customers but should also be extended to the non-users so that they come to know the possible benefits of mobile banking. Al-Hasan *et al.* (2013:286) states that "Banks need to educate the potential customers". **With these results in mind, financial education can induce the attitude of the**

rural unbanked consumers to use mobile banking and in this way they would be included financially. Therefore these results contribute in answering the main research question.

These result are supported by previous research in which financial education was found to be a good predictor of attitude formation. The more information consumers possess about a service, the more they will form a positive attitude about them (Paramasur and Roberts-Lambert, 2013:192). In a study conducted by Prabhu and Pawar (2014:25) in the Pune region of India, found that young IT employees had positive attitudes toward financial planning. Without suitable training and financial education, mobile banking remains the sphere reserved for "financially literate, well educated, high-income customers" (Servon and Kaestner, 2008:3001).Therefore reduced financial training and financial literacy are barriers to achieving effective mobile banking adoption. These arguments show that there is a need to have increased financial education in order to heavily and effectively promote attitude formation toward mobile banking. **The results reveal a unique and significant contribution in the mobile banking context, since no study in Zimbabwe has ever tried to extent the Technology Acceptance Model (TAM) using financial education. Financial education was used as a construct to predict attitude because attitudes are learned (Schiffman and Kanuk, 2004, Solomon, 2014).**

In contrast, in a study in Arizona conducted by Borden *et al*. (2008:34), the results indicated that students with little or no financial knowledge were likely to avoid credit card usage and they concluded that there was no statistically significant relationship between financial knowledge and attitude formation.

7.7.5 Objective 5 and Hypothesis 5 (H5)

7.7.5.1 Attitude and prediction of behavioural intention toward mobile banking services.

The major purpose here was to measure the relationship between attitude and behavioural intention toward mobile banking of rural unbanked consumers and the following hypothesis was set. **The research question guiding this section of the study is "Is there any relationship between attitude and behavioural intention to adopt mobile banking by the rural unbanked consumers?"**

H5: Attitude has a positive influence on behavioural intention to adopt mobile banking by the rural unbanked consumers.

The regression equation between the independent variable attitude and the dependent variable behavioural intention to adopt mobile banking indicated a positive and statistically significant relationship. The independent variable was responsible for 21% $(R^2=0.205)$ of the variance in the independent latent factor of behavioural intention to adopt mobile banking by the rural unbanked consumers in Masvingo province.

These results imply that the higher the level of attitude formation of the rural unbanked consumer, the higher will be their behavioural intention to adopt mobile banking; and the opposite, the lower the level of attitude formation, the less will be their level of behavioural intention to adopt mobile banking services.

These results are consistent with earlier and more recent research in mobile banking for users and non-users of mobile banking. Empirical evidence from these supports this finding as attitude was found to have a strong relationship with behavioural intention to adopt mobile banking services (Moon and Kim, 2001; George, 2002; Puschel *et al*., 2010:402; Aboelmaged and Gebba, 2013:43). However, these results are a departure from the argument raised by Solomon (2014:293) that attitude is not a good predictor of behavioural intention since previous research had confirmed very low correlations between attitude formation and behaviour. This observation is also supported by the studies done by Taylor and Todd (1995) and Jackson *et al.* (1997) in which they discovered that there was no significant relationship between attitude and behavioural intention.

Marketing mix variables have shown that they influence the attitude of the rural unbanked consumers in Masvingo province to adopt mobile banking, a vehicle for financial inclusion. Therefore the main research question of asking whether effective use of the marketing mix element to influence mobile banking adoption to foster financial inclusion in Zimbabwe has been answered. These results contribute to the overall body of knowledge in that the results are unique as the addition of the marketing mix variables to extend both diffusion of innovation and the technology acceptance model has revealed that technology acceptance should not only be centred on innovation attributes and user characteristics, but instead should also be on customer-value driven and customer-centric approaches in the mobile and e-services environment. This has been necessitated by the consideration of the marketing elements.

7.7.6   The Overall Regression Model

The empirical results of multiple regression analysis in the multiple regression model reveal that the independent variables accounted for 46.4% variance in predicting attitude formation toward mobile banking services (R^2=0.464). This shows that the predictors used in this research had a better predictive and explanatory power in mobile banking context. In a study conducted by Venkatesh *et al.* (2003), a comparison of the explanatory of model that uses TAM and found that the predictive power of the model increased as more constructs were added. The results of the same study indicated that the predictive power of most models which may include Technology Acceptance Model (TAM), Theory of Reasoned

Action (TRA), Motivation Model (MM), Theory of Planned Behaviour (TPB), Combination of TAM and TPB, Model of PC Utilisation, Innovation Diffusion Theory (IDT), and Social Cognitive Theory was in the neighbourhood of 40%. Some of the explanatory powers were even below 20%.For example, in time 3 of the study using the Theory of Reasoned Action, a record of 19% was observed (Venkatesh *et al.*, 2003). The results of this study revealing a 46.4% explanatory power is in line with other research. The combination of all the theories by Venkatesh *et al.* (2003) into the UTAUT model resulted in a greater explanatory power of 70%. So the results from this study confirm the finding of Venkatesh *et al.* (2003). The following table has testimony of these findings.

Table 7.1: The comparisons of explanatory power between models with and without moderators

| | Explanatory power without moderators | | | | | | Explanatory power with moderators |
| | Voluntary settings | | | Mandatory settings | | | |
	Time 1	Time 2	Time 3	Time 1	Time 2	Time 3	
Tam/Tam2	.38	.36	.37	.39	.41	.36	0.52 (TAM) 0.53 (TAM2)
Theory Of Reasoned Action (TRA)	.30	.26	.19	.26	.26	.17	0.36
Motivational Model (MM)	.37	.36	.37	.38	.40	.35	0.38
Theory Of Planned Behaviour (TPB)/ Decomposed TBP	.37	.25	.21	.34	.28	.18	0.36 (TBP) 0.47 (DTPB)
Combined TAM-TBP (C-TAM-TBP)	.39	.36	.39	.36	.35	..35	0.39
Model Of PC Utilization (MPCU)	.37	.36	.38	.37	.40	..37	0.47
Innovation Diffusion Theory (IDT)	.38	.37	.39	.38	.42	.37	0.40
Social Cognitive Theory (SCT)	.37	.36	.36	.38	.39	.36	0.36

User Acceptance of Information Technology: Toward a unified view. Source: Adapted from Venkatesh *et al. (*2003).

The 46.04% variance of attitude to adopt mobile banking reveal that attitude does not correlate well with some constructs. So these results support the finding that attitude toward new technology use and aceptance reduces the predictive power of some constructs, but behavioural intention proved to react well

with some constructs (Venkatesh *et al*., 2003). The development of the UTAUT model explained 70% variance in behavioural intention to adopt and use technlogy (Venkatesh *et al*., 2012:157).

7.8 QUALITATIVE RESULTS DISCUSSION

The results from the qualitative research revealed that in addition to some already captured factors considered under the quantitative research, new factors emerged from the rural unbanked consumers that included price differential, price reduction, price monitoring and control, security, discounts, corporate social responsibility, partnership between MNOs and other stakeholders, promotional prizes, use of alternative power, trade promotions, and the distribution of cheap smart phones. To avoid repetition of discussion, only the above factors are discussed here.

7.8.1 Price differential is a marketing strategy of selling mobile banking services to different market segments at different prices or offers. The rural unbanked consumers believe that price differential can aid in mobile banking penetration in the rural areas. So, the rural unbanked consumers felt that banks and MNOs should segment their markets to ensure that those of bottom of the pyramid are catered for.

7.8.2 Price reduction was seen as the way to encourage quick mobile banking service adoption and use. Rapid market acceptance of mobile banking services can be achieved if the banks and MNOs pursue a market penetration strategy in the rural areas. Market penetration pricing strategy should be used when a new product enters the market with a relatively low price. However, the banks and MNOs must be cautious when using this pricing strategy for there is a need for a strategy that would allow wide and sustained diffusion of the service from introduction to maturity level.

7.8.3 Price monitoring and control will make mobile banking services more accessible to the rural unbanked consumers. These price regulations are meant to rectify market imperfections and contain mobile banking rising costs because the mobile money and mobile banking models are not well understood in the Zimbabwean economy (Dermish *et al.*, 2012). So their being new means that the pricing models being used are ambiguous which may call for proper monitoring and control. Mbengo and Phiri (2015:200) reveal that M-Pesa of Kenya was very popular among the low and middle income population because low prices and tariffs were charged for the service. However, restrictive price regulation in a bid to improve financial inclusion in Zimbabwe is likely to delay again the further adoption and use of new products such as mobile banking. The researcher notes with serious concern that price controls may have a negative implication on the effectiveness and efficiency of product entry and possible degree of competition.

7.8.4 Security concerns about the mobile banking medium seem not to be a serious problem from the rural unbanked consumers' perceptions. When non-users of mobile banking believe that their financial information will be kept private and not leaked to anyone, then they are prepared to take up a system or application. However, Kshetri and Acharya (2012:4) contend that "more serious effects of mobile malware are likely to be felt in the future, as cybercriminals find ways to monetise malware and increase the revenue per-infection ratio for such malware". In view of this statement, the rural unbanked need serious financial education to ensure that they realise the possible effects of new banking applications. Marketers will need to address security issues in a positive manner because if not, it may scare away the potential market segment.

7.8.5 Discounts are allowances that are offered as incentives to encourage people to buy products but it is normally for a short term. The rural unbanked believed that price discounts were an instrument to lure potential users of mobile banking as well as increasing usage of the same. Some rural customers will not adopt and use the service because they are conditioned to not buying if they see no discount. However, price discounts may reduce the perceived value of mobile banking services. Those clients with a high degree of self-esteem are likely not to use mobile banking because those people in the rural areas are of low income. Some rural people are businessmen who do not bank their monies but they can still be roped into mobile banking. The management of banks and MNOs should be in a position to identify this market segment within the rural unbanked consumers.

According to Brown and Dacin (1997:68), **corporate social responsibility** refers to "the company's status and activities with respect to its perceived societal or, at least, stakeholder obligations". So from the social point of view, rural unbanked consumers felt that if banks and MNOs were visible in the market, and offering and even sponsoring sporting activities in the rural areas, this would attract and encourage the rural people to be associated with the companies bringing salvation to their homes. In Taiwan, customer-centric corporate social responsibility initiatives had a significant influence on attitude and behavioural intentions (McDonald and Lai, 2011:50). In the same vein, if the local banks and MNOs designed customer-centric corporate social responsibility, mobile banking adoption would be enhanced in Masvingo province. However, in setting business social initiatives, the local banks and MNOs should ensure that they would not influence the maximisation of returns to the stakeholders (Zeniseck, 1979).

While the researcher acknowledges the view that workers should access their salaries via their cell phones, it must be noted that for MNOs to ensure that the salaries and wages of a partner company's employees are accessed through their phones, the best will be to make successful adoption mandatory.

The study by Venkatesh *et al.* (2003) reveals that the explanatory power of predictors of attitude and behavioural intention have better variance attribution under mandatory rather than voluntary settings.

7.8.6 Promotional prizes is a factor that was raised as important to ensure effective and better penetration of mobile banking services. If both users of mobile banking win some prizes from competitions this is likely to encourage non users to take part in the use of mobile banking services as they wish also to win something for their benefit. Therefore the already users will act as influential source of information about how mobile banking can enrich the rural unbanked consumers. Promotional opportunities are a possibility to lure and increase the zeal of the rural unbanked consumers to get well engaged into mobile banking services. Al-Hasan *et al.* (2013:286) discovered that in Jordan 21.1% of the banks provided rewards to customers in order to promote online banking. In view of this they recommend that banks must give rewards to internet bank users and funds should be set aside for this.

7.8.7 Trade promotions are promotions that are targeted toward the intermediaries, in this case the airtime wholesalers, retailers, and network agents. In this scenario, the intermediaries are given special price discounts, free displays, gifts and other rewards (Kotler and Armstrong, 2004). The more the trade promotion is targeted towards the channel member, the higher will be their involvement in recruiting more mobile banking users in Masvingo province. The marketing fallacy that sales promotions spending is bad, is no longer relevant nowadays if the mobile banking channel is to be livened up. The wisdom in promotional spending will deliver short term rewards by having more users of mobile banking, but eventually this impact can have long term effect on improved recruitment.

7.10   CHAPTER SUMMARY

In this chapter the findings presented in Chapter Six were discussed together with the known information about mobile banking adoption. The discussion was based on the objectives, resulting research questions and the set of hypotheses. The discussion centred on the main issues of the product attributes, price satisfaction dimensions, distribution elements, promotional tools, the influence of socio-demographic variables, and the factors that were further raised by the rural unbanked consumers. The next chapter wraps up this study with the summary, conclusions, and recommendation based on the study.

CHAPTER 8

SUMMARY, CONCLUSION AND RECOMMENDATIONS

8.1 INTRODUCTION

The current study sought to establish the influence of traditional marketing mix tools on mobile banking adoption in Zimbabwe by the rural unbanked market segment. This chapter wraps up this thesis. Conclusions in this research have been made based on the research objectives and the accompanying sub-hypothesis set in Chapter One. The managerial and policy implications in marketing and other associated fields, and the scholarly contribution to extant knowledge are provided. The chapter ends by considering the recommendations while realising the significance of the limitations of the study and suggested future research.

8.2 PURPOSE OF THE STUDY AND STATEMENT OF THE PROBLEM

The major purpose of this study was to determine the influence of marketing mix elements on attitude formation toward mobile banking by the rural unbanked consumers in Masvingo province. The statement of the problem guiding this research in brief is that market acceptance and the use of mobile banking services particularly by the rural unbanked consumers in Zimbabwe is still low (Finscope survey, 2011). The Zimbabwe Agenda for Sustainable Socio-Economic Transformation is calling for improving the financial inclusion especially of the poor and marginalised rural people. Government has made significant and frantic efforts to encourage banks to set up banks in rural areas but this initiative significantly and dismally failed as most branches closed shop citing unprofitability reasons. Therefore the government objective of financial inclusion was not effectively achieved. Banks and MNOs have been losing potential profits that could be realised if the unbanked market segment is served. Courtesy of mobile phones, an opportunity has risen to pull the unbanked into the financial mainstream through the use of mobile phones via mobile banking financial services. The success of M-Pesa brought a new lease of life TO developing countries to bank the rural unbanked consumers. However, the issue is how to effectively deploy the new banking concept to rural people and how to attract them toward acceptance and use of the service for their economic benefit. This background therefore guides this research toward the following main research question: **Can the extension to and adoption of mobile banking services by the rural unbanked through effective use of the marketing mix tools lead to increased financial inclusion in Zimbabwe?**

8.3 SUMMARY OF EACH CHAPTER

This section summarises the chapters that form this thesis.

8.3.1 Chapter 1: Introduction and Background

The chapter covered the background to the problem and the purpose of this study which was to ascertain the influence of marketing mix elements on attitude toward mobile banking by the rural unbanked in Masvingo province. The objectives and research questions are in this chapter as well as a discussion of the significance of the study to specific stakeholders.

8.3.2 Chapter 2: Traditional Banking, Mobile Banking and the Marketing Mix

This chapter discussed the concepts of traditional, mobile banking, and the traditional marketing mix variables. The key importance and challenges of traditional banking are also discussed. Further to the discussion of traditional banking, mobile banking trends and its essence is also highlighted. The role of the traditional marketing mix in mobile banking has been explained to the full through visiting previous literature. The reasons to depart from traditional banking to mobile banking have been addressed in this chapter.

8.3.3 Chapter 3: Theoretical and Conceptual Perspectives of Mobile Banking Adoption

This chapter considered the theoretical perspectives upon which this study is based. The Technology Adoption Model, Diffusion of Innovation, and the Marketing Mix framework were considered essential for this study. Based on the review of related literature, hypotheses were set and from these hypotheses a Mobile Banking Adoption Conceptual Model (MBACM) was formulated.

8.3.4 Chapter 4: Mobile Banking in Zimbabwe

This chapter gave the historical background and development process of mobile banking in Zimbabwe. The models of mobile banking were discussed while the legal framework governing the service provision was visited. The colossal opportunities and challenges emanating from adoption of mobile banking in the rural areas were addressed. The chapter hints at the strategic importance of mobile banking in Zimbabwe especially for financial inclusion purposes.

8.3.5 Chapter 5: Research Methodology

This chapter discussed the research design and approaches used to gather data. The population and the sampling strategies pursued were evaluated in this section of the study. The chapter focused on the research instruments, measurement scales, validity and reliability, as well as the statistical tools that were used to analyse the data before presentation and analysis. The research ethics adhered to were also highlighted. The study used SPSS to analyse the data.

8.3.6 Chapter 6: Results Presentation and Analysis

This chapter covered data presentation, interpretation, and analysis. The presentation starts with the demographic data of the participants, and bivariate data analysis using independent t-Test, ANOVA tests for demographic variables and constructs, as well as Pearson correlation. A consideration of multivariate analysis was done through multiple regression analysis, common factor model (exploratory factor analysis), construct validity and reliability and multiple regression analysis. The results from the qualitative section of the questionnaire were presented.

8.3.7 Chapter 7: Discussion of Results

The chapter discussed the implications of the research findings. The findings were discussed in relation to what is known in the context of mobile banking. Quantitative and qualitative results were discussed in view of the findings.

8.3.8 Chapter 8: Conclusions and Recommendations

This chapters gives a summary of chapters, conclusions to the findings of this study and recommendations made in this study. It further highlights the scholarly contribution to marketing theory and practice as well suggests avenues for future research give the limitations of this present study.

8.4 CONCLUSIONS

This study explored the relationships between financial product attributes, price satisfaction dimensions, distribution elements, promotional tools and attitude formation toward and behavioural intention to adopt mobile banking in Mashing province. In light of both statistical and qualitative research findings, this study draws a considerable number of conclusions and recommendations. Findings from the research showed that perceived usefulness, perceived ease of use, system accuracy, price-quality ratio, perceived cost, trust, advertising, personal selling, and financial education positively and significantly influence attitude formation and indirectly affected behavioural intention toward mobile banking. However,

trialability, network coverage, service convenience, and price transparency revealed no significant relationship with attitude toward mobile banking. In view of these findings the following conclusions are made based on the set objectives. In general, the marketing mix elements have had an impact on attitude formation toward mobile banking in Masvingo province.

8.4.1 Conclusion 1

The study indicated that there were significant differences regarding mobile money usage attributable to gender, age, and education. However, marital status, income levels, tribe, nationality, and employment status did not reveal significant differences with regards to mobile money usage. The results depicted the significance of socio-demographic factors in segmenting markets in Masvingo province. It was also uncovered that in Masvingo province, gender, age, and education can be used effectively and efficiently as the outstanding variables to segment markets. Surprisingly, the major independent variables attitude formation and behavioural intention toward mobile banking services revealed insignificant relationships with the demographic variables, which makes segmentation difficult. It is suggested that, given the insignificance in differences, the management of banks and MNOs would not need to segment markets.

8.4.2 Conclusion 2

Regarding the product attributes, four sub-conclusions are made based on the sub-hypotheses. The findings and interpretations reveal that the four constructs - accuracy, trialability, perceived usefulness, and perceived ease of use - accounted for 34% of variance in predicting attitude formation toward mobile banking for the rural unbanked consumers. The results revealed that system accuracy positively predicted attitude in mobile banking adoption. This implies that the greater the accuracy of mobile banking services, the higher was the attitude of the unbanked consumers to adopt mobile banking services and the reverse is true. Although in some previous studies in technology acceptance, perceived usefulness was established as the strongest predictor of attitude and behaviour intention, this study had a surprising finding when perceived ease of use appeared the strongest predictor of attitude in mobile banking. The plausible reason for the finding was that Zimbabweans are better educated and therefore they find the use of mobile banking less complicated. Trialability exhibited a positive and statistically insignificant relationship with attitude formation toward mobile banking services. This finding reveals that attitude towards mobile banking is independent of trialability of the system and implied that mobile banking services would be adopted regardless of whether these rural unbanked consumers had been given the chance to try or not to try the new product. It was suggested that this insignificant relationship was attributed to the fact that the rural unbanked did not form an opinion regarding trialability because they were not using the service and so did not have the experience.

8.4.3 Conclusion 3

There is enough evidence from the findings that perceived cost and price-quality ratio positively predicted attitude formation toward mobile banking services. Price-quality ratio positively and significantly impacted attitude formation toward mobile banking. It implies that when banks and MNOs favourably match price and quality the rural unbanked develop a favourable attitude towards mobile banking services. Surprisingly perceived cost positively influenced attitude formation toward mobile banking service against the hypothesised direction. It was concluded that the rural unbanked in Masvingo province were not price sensitive and they had been hardened by the hyperinflationary period they went through in the period 2003-2008. In addition, it was concluded that the rural unbanked consumers believed that mobile banking services were better than traditional banking approach.

The findings from this research indicated that price transparency was negatively and insignificantly related to attitude formation toward mobile banking services. The implication of this finding is that price transparency resulted in a negative rural unbanked consumers' attitude formation toward mobile banking services. It is therefore concluded that rural unbanked consumers believe that current price transparency information caused them to develop a negative attitude toward mobile banking.

Overall, it is concluded that price transparency may scare away rural unbanked consumer from adopting and using the service and therefore is not a vehicle that should be used to deploy mobile banking service to this market segment.

8.4.4 Conclusion 4

Distribution elements encompassing trust, network coverage, and service convenience had a combined negative effect on attitude formation toward mobile banking services. From the combined effect only trust had a strong and positive relationship with attitude formation toward mobile banking services. This implies that trust in both banks and mobile network operators is important if mobile banking is to be adopted. When there is lack of trust in the stakeholders involved then the rural unbanked consumers will resist adoption. In view of these comments, trust has the ability to predict attitude of the rural unbanked consumers towards mobile banking services. There is strong evidence to reveal that network coverage had a negative and insignificant relationship with attitude formation toward mobile banking services. Lack of network coverage results in rural unbanked forming a negative attitude toward mobile banking services.

However, service convenience was positively and insignificantly related to attitude formation toward mobile banking services. This implied that mobile banking services would be adopted and used or not by rural unbanked regardless of whether these consumers considered the convenience of the mobile banking

service. The attitude towards mobile banking services is therefore independent of service convenience. It is concluded that only trust is able to bring mobile banking services to the rural unbanked consumers in this regard thus fostering financial inclusion in the rural areas. In addition, network coverage discourages adoption while service convenience may or not encourage adoption and use of the service.

8.4.5 Conclusion 5

Promotional tools had a combined positive effect on attitude formation toward mobile banking. Therefore a positive relationship implies that the tools can effectively predict attitude towards the use of mobile banking. On a construct to construct basis, the study discovered that advertising is positively and significantly related to attitude toward mobile banking adoption in Masvingo province. This result means that the more the advertising exposure to the rural unbanked consumers, the higher will be their attitude to accept mobile banking services. Advertising indicated its ability to deploy or extend mobile banking services to the rural unbanked consumers and is therefore capable of financially including the named market segment.

Personal selling registered a positive and statistically significant relationship with attitude formation toward mobile banking service. This implies that attitude is really a dependent of personal selling, and personal selling can predict attitude toward mobile banking services. The more the personal instructions and skills demonstrated by the salespeople, the higher will be the change in attitude toward mobile banking services.

The study also discovered financial education to be positively and significantly correlated with attitude toward mobile banking. Again, financial education was the strongest promotional predictor of attitude toward mobile banking. It is therefore concluded that the more the financial literacy, the greater the rural unbanked consumers will be prepared to take up mobile banking services.

Overall, the researcher concludes that promotional tools have the rigour to deploy mobile banking services to the rural unbanked consumers and as result financial inclusion is promoted.

8.4.6 Conclusion 6

There is evidence from this study that attitude is good predictor of behavioural intention toward mobile banking as there was a positive and statistically significant relationship between the two variables. Favourable rural unbanked consumers' attitude can lead to adoption of mobile banking services whereas unfavourable attitude can result in the rural unbanked resisting the financial channels use.

8.4.7 Conclusion 7

Emerging factors from qualitative research reveal that the rural unbanked consumers were concerned that the local banks and MONs should also seriously consider such factors as price differential, price reduction, price monitoring and control, system security, discounts, corporate social responsibility, promotional prizes, and trade promotions if they are to adopt mobile banking services in Masvingo province. These factors add value to this research because the quantitative research approach could not capture these valuable variables. Therefore when designing marketing strategies, the management of concerned companies need to factor in such variables in order to increase market acceptability of mobile banking in Zimbabwe.

8.4.8 Conclusion 8

The study revealed that rural unbanked consumers do not only face the challenge of access to bank accounts but also access to financial products. The Zimbabwean economy could grow exponentially provided the population had efficient and effective accessibility to financial services. It is also concluded that the use of mobile phones in the banking sector has helped to broaden the transfer of financial services, savings, insurance, and payment products to marginalised rural consumers. Therefore, mobile banking has been able to reach the already banked, underbanked, and the unbanked financial consumers thereby improving financial inclusion goal of the Zimbabwean government.

8.4 RECOMMENDATIONS: Implications for Policy and Practice.

This current study has valuable implications for information systems, marketing of financial services, and banking because of the question "Why do users of new information systems often exhibit ineffective acceptance and usage behaviour thus resulting in marginal or negligible performance improvements resulting from technology implementation?' (cf:8) cited in Malhotra and Galleta (1999:9). Based on the study findings, the following recommendations are therefore made:

8.4.1 Recommendation 1

With perceived usefulness, it is recommended that marketing managers should design marketing communications in banks, growth points, agent networks, schools and text messages to the rural unbanked explaining the relative advantages or benefits of mobile banking channels compared to the

traditional means of banking. The relative advantages of a new product or service against existing ones are significant in the adoption of new products. Therefore the marketing managers should explain the level of quality of the service, performance and effectiveness of the system, and the mobile factors related to convenience to the rural unbanked consumers. When the service has a number of benefits in the eyes of the prospective user that will induce impulse trying which may end up in usage.

8.4.2 Recommendation 2

Perceived ease of use was the strongest predictor of attitude formation toward mobile banking. Perceived ease of use is essential in that it indicates that consumer adoption of mobile banking is the product of learning processes. Therefore the management of banks and MNOs should ensure that mobile banking services and the associated systems should be user friendly to ensure quick adoption. If they are complicated the rural unbanked may find it difficult to match their skills with the system use. However, the findings of this study revealed that learning using mobile banking was not difficult for people in Masvingo province. It is therefore recommended that adverts that emphasise the ease of use of mobile banking services in Zimbabwe should be designed by the mobile banking industry players.

8.4.3 Recommendation 3

Some systems have dismally failed due to lack of accuracy in the world. The mobile banking service provider needs to ensure that the system is not prone to errors to ensure proper and effective acceptability of the new service. When rural unbanked consumers feel that the system is not reliable and has a great deal of perceived risk thereby threatening the security and privacy of the prospective users, they will resist adoption and the use of them. Therefore the present study advises the mobile banking service providers to ensure that the system in place is free of such errors.

8.4.4 Recommendation 4

The management of mobile banking service providers should ensure that the prices they offer do not compromise the quality of the new service. Prices should be able to justify the quality of the services on offer. Marketers of services in mobile banking should be concerned with competitors' prices if they are to improve on price quality ratios. Quality services can only be achieved provided they are different from those of the competition. When rural unbanked consumers come to understand that price is equally as important as the quality offered, then they will be prepared to absorb the banking initiative.

8.4.5 Recommendation 5

With perceived cost management, banks and MNOs should put in place special packages for the bottom of the pyramid that offers low charges for affordability. It is advised that, no matter how low the price is, it should not work against quality. Price transparency is recommended by this study because information relating to costs and to no hidden costs builds confidence in the rural unbanked consumers. As identified from the qualitative results, the mobile banking service providers should ensure that strategies that encourage price segmentation, and price discounts should be used to encourage the quick penetration of mobile banking services in the rural areas.

8.4.6 Recommendation 6

Trust can only be developed between the rural unbanked consumers, banks, and mobile network operators provided there is a great deal of transparency in the distribution of mobile banking services. The mobile banking service providers should ensure that information relating to security issues is transparent, that there is a lack of hidden costs and a trust in the vendors used in the distribution channel, in order to build confidence and trust in the new banking initiative. Mobile commerce is characterised by spatial and temporal separation between the rural unbanked and the service providers and the lack of this physical interaction requires both parties to trust each other, as a lot of privacy and security of mobile banking services may be questionable. Therefore, this study recommends to the service providers to guarantee the rural unbanked trustworthiness and transparency in their business conduct in order to build confidence in the new banking approach.

8.4.7 Recommendation 7

The management of banks and MNOs and government agencies should attempt to do extensive advertising of mobile banking service in the rural areas for increased awareness. Advertising has the power to influence the attitude of the rural unbanked consumers toward mobile banking services and can even persuade them to attempt to use the service. The rural unbanked may lack thorough understanding of the capabilities of new financial product distribution channels resulting in them having less optimal utilisation of the channel. A collaboration in the advertising campaign by the three stakeholders (Government, Banks. And MNOs) will ensure more information resources are availed in schools, district, constituencies, and growth points.

8.4.8 Recommendation 8

The present study advises the mobile banking service provider to ensure that sales personnel are skilled enough to demonstrate how the system functions before the rural unbanked initially try mobile banking service. The proper training of the sales personnel before they get into the field is encouraged in order to ensure the successful deployment of the service to the rural areas. The propensity for trialability by the rural unbanked consumers may increase provided enough demonstrations are done to expose this market segment.

8.4.9 Recommendation 9

Financial education is important in mobile banking adoption. Banks and MNOs should educate the rural unbanked financially in order to improve their financial literacy and this will help them develop the zeal to utilise the service. The researcher recommends that together as one, the Ministry of Primary and Secondary Education, the Reserve Bank of Zimbabwe, banks, and Mobile Network Operators should bankroll financial literacy programmes in schools so that the young in the rural areas grow with financial knowledge. Therefore financial literacy should be considered as significant part of the Zimbabwe national curriculum. Educating the young about financial literacy can improve understanding and develop financial habits at early age. The national curricula in schools should be revised to cover personal finance. However, it may take several years for the benefits of this schooling to feed through to the whole economy. In various constituencies in Masvingo province, the Members of Parliament together with the mobile banking industry players may conduct workshops that are aimed at educating the rural unbanked consumers about the social and economic benefits of using mobile banking. To overcome the mobile banking adoption challenges, the parties concerned should educate the public about financial literacy, the significance of and the reasons why the rural unbanked should take to banking services through mobile phones.

8.4.10 Recommendation10

The government is urged to finance research initiatives that are earmarked to consider banking the rural unbanked consumers for financial inclusion. Research that focuses on rural and marginalised people should be promoted. Such a wide spectrum of data would be available for use by policy implementers in the country. A considerable number of non-governmental organisations, for example United Nations Development Programme, are interested in collaborating in research that fosters financial inclusion, particularly in the rural areas of developing countries.

8.4.11 Recommendation 11

The Post and Telecommunication Regulatory Authority and the Reserve Bank of Zimbabwe should work hand in glove to ensure effective regulations and rules that clarify insurance and criminal activities that are tied to mobile banking services. Currently in Zimbabwe, there is no regulatory framework to govern the mobile money and mobile payments systems. Therefore, the crafting of a regulatory framework is recommended to ensure the smooth running of the service and to protect the rural unbanked consumers from possible exploitation by mobile network operators who are operating banking services yet are not licenced according to the Banking Act. If the regulatory framework is not in place, there will be no-one responsible for the replacement of depositors' funds if the system collapses.

8.4.12 Recommendation 12

Age, gender, and level of education socio-demographic factors proved to be significant in predicting and explaining mobile money usage in rural Masvingo. Based on these variables, mobile banking service operators should concern themselves with segmenting Masvingo province market using the same variables because significant differences were noticed. This study does not recommend that the mobile banking service providers segment markets in Masvingo based on marital status, level of income, and tribe, as they indicated no statistically significant differences on mobile money usage.

8.5 SCHOLARLY CONTRIBUTIONS TO MARKETING THEORY AND PRACTICE

This study on the influence of marketing mix elements on attitude and behavioural intention to adopt mobile banking had the motivation of bridging the gap between the financial exclusion of the rural unbanked and their financial inclusion, given the opportunities for mobile banking through mobile phones as promised in other countries such as Kenya. The disparities between the urban banked and rural unbanked financial consumers called for the need to consider this study in Zimbabwe. Ignoring the rural unbanked would mean their continued financial exclusion and marginalisation from viable economic activities, thus denying them their consumer rights to access financial services.

This study makes the following contributions:

(1) Most studies on mobile banking services adoption and usage have been conducted in developed and emerging economies: Puschel *et al*., 2010 (Brazil), Daud *et al*., 2011(Malaysia), Raleting and Nel, 2011(South Africa), Venkatesh *et al*., 2012 (Hong Kong), Aboelmaged and Gebba, 2013(UAE), Al-Adwan *et al*., 2013(UK), and Dineshwar and Steven, 2013 (Malaysia) and a few

studies have considered banking the rural unbanked using mobile phones in developing countries (Tobbin, 2012). Several studies have been conducted in Zimbabwe mainly for people in urban areas, so rural people have been ignored. This study has been able to examine the attitude and behavioural intention of rural unbanked consumers in Masvingo province towards new technologies such as mobile banking. In Zimbabwe there has been a significant gap in and a dearth of empirical studies on mobile banking that considered the attitude of rural unbanked people who possess mobile phones but are starved of banking and financial services.

(2) This study is the first of its kind to have extended the Technology Acceptance Model using marketing oriented constructs, as other theories have tended to be only product oriented in considering the technical characteristics of technology. Only one recent extension of the Unified Theory of Technology Acceptance and Use prepared by Venkatesh *et al.* (2012), has considered just the perceived price value on its own, and it left room for the distribution and promotional elements which have been accommodated in this study.

(3) This study contributes to the body of knowledge in that it has been able to take a multidisciplinary approach by fusing marketing, banking and finance, and information system philosophies into one study as may be enshrined in the marketing of financial services.

(4) Other studies have only focused on factors that merely influence adoption of mobile banking without considering it as a vehicle for financial inclusion. This study adds to the frontier of knowledge by considering the impact of mobile banking on financial inclusion.

(5) A careful review of related literature resulted in the researcher formulating new scales for measures of perceived cost, system accuracy, financial education, and personal selling constructs. The measures loaded heavily on these constructs when factor analysis was run to analyse the structure of the factors. These constructs had good reliabilities (composite reliability and Cronbach alpha index) and indicated good construct and discriminant validities. So this is a contribution to research methodology as future researchers may inherit the scales to test for their reliability and validity in other research.

8.6 LIMITATIONS AND FUTURE RESEARCH

While this study pursued the rigour of both quantitative and qualitative research approaches, the researcher acknowledges the weaknesses or limitations embodied in these two methods. The primary

survey was carried out in Masvingo province via an interviewer-administered questionnaire. Therefore extrapolation of the study results to a national reality could be difficult given that only one province out of ten was chosen as the sample. The sample size used in this study is somehow skewed as the mean age was 29 years and therefore the findings of this study may fail to apply to significantly older people. This research is limited in that the market segment comprised of rural unbanked consumers, yet even in urban areas there are also a multiplicity of unbanked people. This study considered only the traditional marketing mix elements. In view of the forgoing results and discussions, the researcher suggests some areas for future research.

There are a considerable number of possible avenues for future research. In this research work, the constructs price transparency, perceived cost, network coverage, service convenience, and trialability did not perform as hypothesised or expected, so it is suggested that future studies may focus their attention on testing why these factors were not significant in the mobile commerce context. It is suggested that future studies may focus on testing the significance of the factors that emerged from the qualitative research when adopting and using mobile banking, either for the rural unbanked or for the urban unbanked and for the under-banked in Zimbabwe in order to understand the phenomenon better. It is further suggested that future researchers may focus their minds on considering other Ps like people, processes, and physical evidence, as constructs that may impact on mobile banking adoption in both rural and urban set-ups. The researcher developed new scales for financial education, personal selling, system accuracy and perceived costs, and therefore calls for future studies to test the reliability and validity of these scales in other technology acceptances contexts.

8.7 CHAPTER SUMMARY

This chapter focused on the conclusions made on the study findings and provided a summary of chapters characterising this study. Data collected was able to answer most of the research questions and the main research question raised in this study. Recommendations have been made in line with significant findings. However, these recommendations should be considered with serious care as the rural Zimbabweans have been used to cash payments and they are likely to experience problems when learning new distribution channels and new payment systems. The chapter also considered the contribution of the study to the current body of knowledge as well as the limitations of the study and future research suggestions.

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APPENDICES

Appendix 1: Research instrument and informed consent

UNIVERSITY OF KWAZULU-NATAL

School of Management, Information Technology and Governance

Research Project: PhD. Marketing Management

Researcher: Pinigas Mbengo (+263 773 299 499)

Supervisor: Dr. Maxwell. A. Phiri (+27 33 260 5843)

Research Office: Ms. M Snyman (031 260 8350)

Dear Respondent

I, Pinigas Mbengo, a Ph.D. Marketing student, at the School of Management, IT & Governance of the University of KwaZulu-Natal, am conducting a research project. You are invited to participate in this research project entitled, "*Marketing Mix's Influence on Mobile Banking Adoption by Consumers in Zimbabwe*". The aim of this study is to explore if the marketing mix elements influence consumer attitudes and behaviour towards mobile banking adoption by the consumers in Zimbabwe. Through your participation, it is hoped that the researcher will be able to understand the behaviour and attitudes of the consumers towards mobile banking. The results of the survey are intended to contribute to the development of marketing strategies and government policies that will encourage financial inclusion of the people in Zimbabwe. Your participation in this project is voluntary. You may refuse to participate or withdraw from the project at any time with no negative consequence. There will be no monetary gain from participating in this survey. Confidentiality and anonymity of records identifying you as a participant will be maintained by the School of Management, IT & Governance of the University of KwaZulu-Natal. If you have any questions or concerns about completing the questionnaire or about participating in this study, you may contact me or my supervisor at the numbers listed above. The survey should take you about 20 minutes to complete. I hope you will take the time to complete this survey.

Sincerely.

Investigator's signature_____ Date_____

Appendix 2: RESEARCH INSTRUMENT

SECTION A: DEMOGRAPHIC CHARACTERISTICS

Tick [ ] in the appropriate box

1. **Gender**

Male ☐   Female ☐

2**. Age**

Below 18-20years ☐   21-25years ☐   26-30years ☐   31-40years ☐

41-50 years ☐   above 50 years ☐

3. **Marital Status**

Single ☐   Married ☐   Divorced ☐   Widowed ☐   Separated ☐

4. **Level of Education**

Grade 7 ☐   ZJC ☐ O'Level ☐ A'Level ☐ Bachelor's Degree ☐

Postgrad ☐

5. **Occupation**

Private Sector ☐   NGO ☐   Self Employed ☐ Not Employed ☐

Other, specify………………..

6**. Income range**

Less than $100 ☐ Between $101-$200 ☐ Between $201-$400 ☐   Between$401-$700 ☐
Above $701 ☐

7. **Tribe**

Shona ☐   Ndebele ☐   Shangani ☐   Other, Specify ☐

8. **Nationality**

Zimbabwean ☐   South African ☐   Mozambican ☐   Other specify ☐

9. District

Chivi ☐ Masvingo Rural ☐   Chiredzi ☐ Bikita ☐ Zaka ☐

10. Do you currently possess any bank account?   Yes ☐ No ☐

11. Do you possess a cell phone?   Yes ☐ No ☐

12. Do you currently use any mobile money facility?   Yes ☐   No ☐

SECTION B

Question 1

Please indicate the extent to which you agree or disagree to the following suggestions. (Key: 1=Strongly Disagree; 2=Disagree; 3=Neutral; 4=Agree; 5=Strongly Agree)

	1	2	3	4	5
Perceived Usefulness					
1 Using mobile phone banking is useful in my daily life.	[ ]	[ ]	[ ]	[ ]	[ ]
2 Mobile phone banking improves my banking experience	[ ]	[ ]	[ ]	[ ]	[ ]
3 Mobile phone banking is quite convenient	[ ]	[ ]	[ ]	[ ]	[ ]
Perceived Ease of Use					
4 Learning to use mobile phone banking is easy for me.	[ ]	[ ]	[ ]	[ ]	[ ]
5 My interaction with mobile phone banking would be clear and understandable.	[ ]	[ ]	[ ]	[ ]	[ ]
6 I would find mobile phone banking easy to use.	[ ]	[ ]	[ ]	[ ]	[ ]
Trialability					
7 Before deciding whether to use mobile banking, I can properly try it out.	[ ]	[ ]	[ ]	[ ]	[ ]
8 Mobile banking is available to me to adequately try it.	[ ]	[ ]	[ ]	[ ]	[ ]
9 I will be permitted to use mobile banking on a trial basis long enough to see what it can do.	[ ]	[ ]	[ ]	[ ]	[ ]
Accuracy					
10 I find mobile phone banking operations to be accurate.	[ ]	[ ]	[ ]	[ ]	[ ]
11 Mobile phone banking is more accurate than traditional banking.	[ ]	[ ]	[ ]	[ ]	[ ]
12 Transaction with mobile phone banking does better.	[ ]	[ ]	[ ]	[ ]	[ ]

Question 2

Please indicate the extent to which you agree or disagree to the following suggestions. (Key: 1=Strongly Disagree; 2=Disagree; 3=Neutral; 4=Agree; 5=Strongly Agree).

	1	2	3	4	5
Price reliability					
1 I think price changes will be communicated properly.	[ ]	[ ]	[ ]	[ ]	[ ]
2 I think price changes will be communicated timeously.	[ ]	[ ]	[ ]	[ ]	[ ]
3 I think there are no "hidden" costs in the prices.	[ ]	[ ]	[ ]	[ ]	[ ]
4 Prices and conditions will not change unexpectedly.	[ ]	[ ]	[ ]	[ ]	[ ]
Price Transparency					
5 All price components are clear, comprehensible and	[ ]	[ ]	[ ]	[ ]	[ ]

understandable.

6 I think price information is complete, correct and frank.	[ ]	[ ]	[ ]	[ ]	[ ]
7 I think price information is understandable and comprehensible.	[ ]	[ ]	[ ]	[ ]	[ ]
8 I will be properly informed about the prices of the services.	[ ]	[ ]	[ ]	[ ]	[ ]
9 I will know what I pay and what I get.	[ ]	[ ]	[ ]	[ ]	[ ]

Price Quality ratio

10 Price and quality will meet my needs.	[ ]	[ ]	[ ]	[ ]	[ ]
11 The prices I pay will be fair.	[ ]	[ ]	[ ]	[ ]	[ ]
12 I have the impression that I know what I will be paying for.	[ ]	[ ]	[ ]	[ ]	[ ]
13 The prices I pay depend on how much I will use certain services	[ ]	[ ]	[ ]	[ ]	[ ]

Perceived Cost

14 I feel that mobile banking transactions are cheaper.	[ ]	[ ]	[ ]	[ ]	[ ]
15 The prices charged seem affordable for the rural people.	[ ]	[ ]	[ ]	[ ]	[ ]
16 Mobile banking offer better prices than traditional banking.	[ ]	[ ]	[ ]	[ ]	[ ]

Question 3

Please indicate the extent to which you agree or disagree to the following suggestions. (Key: 1=Strongly Disagree; 2=Disagree; 3=Neutral; 4=Agree; 5=Strongly Agree)

Trust

1 I trust mobile banking agents.	[ ]	[ ]	[ ]	[ ]	[ ]
2 I trust using mobile banking other people around start using it.	[ ]	[ ]	[ ]	[ ]	[ ]
3 When using mobile banking, I believe my information is kept confidential	[ ]	[ ]	[ ]	[ ]	[ ]

Network Coverage

4 I will never face any congestion or difficulty in getting connected to banks	[ ]	[ ]	[ ]	[ ]	[ ]
5 Operations through mobile banking are complete without breakage	[ ]	[ ]	[ ]	[ ]	[ ]
6 Mobile phone banking is not prone to signal failures and network congestion	[ ]	[ ]	[ ]	[ ]	[ ]

Distribution Dependability

7 Mobile phone banking is a reliable channel than traditional banking.	[ ]	[ ]	[ ]	[ ]	[ ]
8 The channel will always be available in my residential area.	[ ]	[ ]	[ ]	[ ]	[ ]
9 The mobile phone banking system is a safe channel for financial services.	[ ]	[ ]	[ ]	[ ]	[ ]

Service Convenience

10 Mobile phone banking would be easy to contact the service provider.	[ ]	[ ]	[ ]	[ ]	[ ]
11 Mobile phone banking would not take time to reach the service provider.	[ ]	[ ]	[ ]	[ ]	[ ]
12 I would be able to get to the service provider's location quickly.	[ ]	[ ]	[ ]	[ ]	[ ]

Question 4

Please indicate the extent to which you agree or disagree to the following suggestions. (Key: 1=Strongly Disagree; 2=Disagree; 3=Neutral; 4=Agree; 5=Strongly Agree)

	1	2	3	4	5
Advertising					
1 The available Adverts are creating convincing mobile phone banking awareness.	[ ]	[ ]	[ ]	[ ]	[ ]
2 The Adverts have effect on me when adopting mobile phone banking.	[ ]	[ ]	[ ]	[ ]	[ ]
3 The Adverts change my opinion to adopt mobile phone banking service.	[ ]	[ ]	[ ]	[ ]	[ ]
4 The mobile banking Adverts are visually appealing and engaging.	[ ]	[ ]	[ ]	[ ]	[ ]
Personal Selling					
5 Sales people would demonstrate convincingly how to use mobile banking.	[ ]	[ ]	[ ]	[ ]	[ ]
6 They would be able to educate us about the benefits of mobile banking.	[ ]	[ ]	[ ]	[ ]	[ ]
7 Network agents provide us with useful information on the use of mobile banking.	[ ]	[ ]	[ ]	[ ]	[ ]
Financial Education					
8 Financial knowledge increases my skills to use mobile banking.	[ ]	[ ]	[ ]	[ ]	[ ]
9 Financial training programmes are essential in rural mobile banking acceptance.	[ ]	[ ]	[ ]	[ ]	[ ]
10 I feel the government should support the training programmes.	[ ]	[ ]	[ ]	[ ]	[ ]

Question 5

Please indicate the extent to which you agree or disagree to the following suggestions. (Key: 1=Strongly Disagree; 2=Disagree; 3=Neutral; 4=Agree; 5=Strongly Agree)

	1	2	3	4	5
Attitude					
1 I have a positive liking of mobile banking.	[ ]	[ ]	[ ]	[ ]	[ ]
2 I like new technology.	[ ]	[ ]	[ ]	[ ]	[ ]
3 Mobile banking is a wise idea.	[ ]	[ ]	[ ]	[ ]	[ ]

Question 6

Please indicate the extent to which you agree or disagree to the following suggestions. (Key: 1=Strongly Disagree; 2=Disagree; 3=Neutral; 4=Agree; 5=Strongly Agree)

	1	2	3	4	5
Behavioural Intention					
1I intend to use mobile banking in the future.	[ ]	[ ]	[ ]	[ ]	[ ]
2 I will always try to use mobile banking in my daily life.	[ ]	[ ]	[ ]	[ ]	[ ]
3 I plan to continue to use mobile banking frequently.	[ ]	[ ]	[ ]	[ ]	[ ]

Fill in the blank spaces provided to answer the following questions.

QUESTION ONE

What do you think should be done about the prices being charged by banks and mobile network operators to improve mobile phone banking acceptability in your area?

QUESTION TWO

Describe the factors that you think are important to you in order to accept and use mobile phone banking.

QUESTION THREE

Explain promotional activities or incentives that should be provided by banks and mobile network operators to promote mobile phone banking in your area.

QUESTION FOUR

What do you think banks and mobile network operators must do to improve mobile phone channels to deliver banking services to rural areas?

THANK YOU FOR YOUR PRECIOUS TIME

Appendix 3: Turnitin originality report (first page)

Turnitin Originality Report

Draft by P Mbengo

From Proposal & Draft Chapters (Doctoral Thesis)

- Processed on 19-Sep-2016 11:43 AM CAT
- ID: 707411609
- Word Count: 101475

Similarity Index
10%
Similarity by Source
Internet Sources:
        8%
Publications:
        5%
Student Papers:
        3%
sources:
1

< 1% match (publications)

info, Volume 14, Issue 5 (2012-07-28)
2

< 1% match (student papers from 01-Sep-2014)

Submitted to The University of Manchester on 2014-09-01
3

< 1% match (Internet from 12-May-2014)

http://banksandmarkets.files.wordpress.com/2012/05/dissertation4.pdf
4

< 1% match (Internet from 03-May-2016)

http://insikapub.com/Vol-01/No-01/IJBAS(1)(1).pdf

Appendix 4: Ethical clearance certificate

UNIVERSITY OF ™
KWAZULU-NATAL

INYUVESI
YAKWAZULU-NATALI

28 October 2015

Mr Phinigas Mbengo (213574398)
School of Management, IT & Governance
Westville Campus

Dear Mr Mbengo,

Protocol reference number: HSS/1284/015D
Project title: Marketing Mix's Influence on Mobile Banking Adoption by the Rural Unbanked Consumers in Masvingo Province

Full Approval – Expedited Application
In response to your application received on 04 September 2015, the Humanities & Social Sciences Research Ethics Committee has considered the abovementioned application and the protocol have been granted **FULL APPROVAL.**

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number.

PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

The ethical clearance certificate is only valid for a period of 3 years from the date of issue. Thereafter Recertification must be applied for on an annual basis.

I take this opportunity of wishing you everything of the best with your study.

Yours faithfully

....
Dr Shenuka Singh (Chair)

/ms

Supervisor: Dr Maxwell Phiri
Academic Leader Research: Professor Brian McArthur
School Administrator: Ms Angela Pearce

Appendix 5: Gatekeeper's consent letter

Gatekeeper's Consent

I....K.C. MABHUCU.........in my capacity as.....SALES.....MANAGER....hereby give

Permission to Student name: Pinigas Mbengo (Student No. 213574398) to conduct research in my organization.

The student MAY/~~MAY NOT~~ (delete whichever is not applicable) use the name of the organization in the dissertation.

Signature of ~~Manager/Owner/~~Gatekeeper

Company Stamp

Date 28/5/15

Recommended by National Sales and Client Services Manager

Apendix 6: Gatekeeper's consent letter

Correspondence should not be
addressed to individuals

Telephone : 263351/2/3
Fax   : 265968
Email address:

ZIMBABWE

Reference:
MINISTRY OF LOCAL GOVERNMENT,
Public Works and National Housing
Provincial Administration
Benjamin Burombo House
P.O. Box 595
Masvingo

12 June 2015

To Mr Mbengo Pinigas
C/O University of Kwazulu- Natal

REQUEST FOR PERMISSION TO CONDUCT RESEARCH ENTITLED :"MARKET
MIX'S INFLUENCE ON MOBILE BANKING ADOPTION BY THE RURAL
UNBANKED CONSUMERS: MASVINGO PROVINCE.

Your mail dated 9 June 2015 refers.

This letter serves to advise that the Provincial Administrator has no objection to the
intended research entitled "**Market Mix's Influence on Mobile Banking
Adoption by the Rural Unbanked Consumers**" to be carried out in Masvingo
Province, as this has been authorised by Ministry of Finance

Thank you.
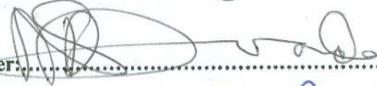
F.A Chikovo
Provincial Administrator, Masvingo

PROVINCIAL ADMINISTRATOR
MIN. OF LOCAL GOVT. PUBLIC
WORKS & NATIONAL HOUSING
1 1 JUN 2015
RECORDS & INFORMATION
P.O. BOX 595, MASVINGO
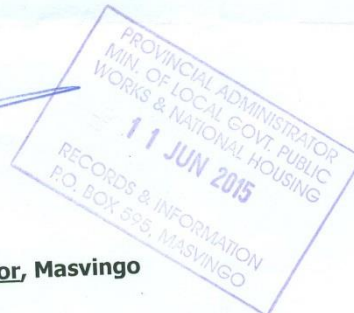
Appendix 7: Gatekeeper's consent letter

<div align="center">

Gatekeeper's Consent

</div>

I ....DOUGLAS MURANDA......... in my capacity as ...N.P.S HEAD OVERSIGHT..hereby give

permission to **Student name: Pinigas Mbengo (Student No. 213574398)** to conduct research in ~~my~~ our

organization.

The student ~~MAY~~/MAY NOT (delete whichever is not applicable) use the name of the organisation in the

dissertation. *Please however ensure that the Central Bank*
Sanctions any information relating to the Bank before
publication

Signature of Manager/~~Owner~~/Gatekeeper:...................

Company Stamp:

for Deputy Director
NPS

Date: ....06 May 2015...............

RESERVE BANK OF ZIMBABWE
HARARE
0 6 MAY 2015
SENIOR DIVISION CHIEF'S OFFICE
NATIONAL PAYMENT SYSTEMS