AN INVESTIGATION INTO THE FACTORS AFFECTING MOBILE BANKING ADOPTION IN ZIMBABWE

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Abstract

As mobile technology has become an increasingly important element in the services industries, managerial interest in understanding pre and post-adoption user perceptions of customers as adopters has led to a call for more academic research.This empirical study sought to investigate the factors affecting mobile banking adoption in Zimbabwe. It also sought to ascertain the applicability of the extension of theUnified Theory of Acceptance and Technology Use (UTAUT2) modelto explain mobile banking adoption in Zimbabwe.

A qualitative in-depth interviewingdesign was adopted to gain knowledge and understanding on mobile banking adoption among users in Zimbabwe. Through purposive sampling,fifteen in-depth interviews were conducted to obtain data from respondents. The data were analysed using thematic analysis and discussed.

The results indicated thatcost, facilitating conditions, security, hedonic motivation, and facilitating conditions affected users' intention to adopt mobile banking while performance expectancy, social influence and market awareness were the major factors affecting adoption. It was therefore recommended that service providers must improve customer awareness through intensive advertising and utilise current customer base to spread awareness thus improve uptake.

This study also provides a basis for further refinement of frameworks to predict technology adoption, in particular the inclusion of loyalty as a predictor of behavioral intention in Zimbabwe.

Declaration

Student's Declaration - I, JOHN SHINGAI NYAMASVE, do hereby declare that this dissertation is the result of my own investigation and research, except to the extent indicated in the acknowledgements, references, and by comments included in the body of the report, and that this dissertation is therefore my original work and has not been presented in part or in full for any other degree in any other University.

Signature   ……………………………..   Date ………………….

NAME: JOHN SHINGAI NYAMASVE

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Supervisor Declaration – I, A, Chidakwa, confirm that the work reported in this dissertation was carried out by the candidate under my supervision as the University supervisor. This dissertation has been submitted for review with my approval as University Supervisor.

Signature   ……………………………..   Date ………………….

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Acknowledgements

Dedication

This study is dedicated to the Almighty God for His love, provisions, guidance and help towards the successful completion of this research work.

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List of Abbreviations

CBD	Central Business District
GDP	Gross Domestic Product
GSMA	Global System for Mobile Communication Association
IDT	Innovation Diffusion Theory
MNO	Mobile Network Operator
MPCU	Model of PC Utilisation
PEOU	Perceived Ease of Use
PU	Perceived Usefulness
RBZ	Reserve Bank of Zimbabwe
SCT	Social Cognitive Theory
SSA	Sub-Saharan Africa
TAM	Technology Acceptance Model
TPB	Theory of Planned Behavior
TRA	Theory of Reasoned Action
UTAUT	Unified Theory of Acceptance and Use of Technology
ZESA	Zimbabwe Electricity Supply Authority

Chapter One
Introduction and Background to the Study

1.1 Introduction

The last decade witnessed an increasing uptake of mobile technology, mobile services, mobile applications and or devices around the world and Zimbabwe is no exception. With the rapid convergence of banking services and mobile technologies, users are able to conduct banking services at any time and place through the use of mobile banking (Gu et al., 2009). The current study focuses on the introduction of mobile banking in Zimbabwe. It will also explore the strategic position of mobile banking in the banking domain.

Mobile banking is considered part of Mobile Commerce (m-commerce) and is believed to be the natural evolution of Internet Banking (Püschel et al., 2010). The term m-commerce has been widely used to describe a subset of electronic commerce that refers to transactions with monetary value that are conducted via mobile devices (Puschel, et al., 2010). Mobile banking may be defined as a way of executing financial services through the use of mobile communications technology in conjunction with mobile devices(Pousttchi & Schurig, 2004).

According to Medhi et al. (2009),the number of mobile phone users has surpassed the number of people with bank accounts across the globe. In addition, mobile phones are increasing at an annual rate of 14 percent around the world (Yankee Group, 2010). The mobile penetration ratios in the mobile telephony service now exceed 100% in Zimbabwe(Techzim, 2013). It is not surprising that mobile banking, not just in Zimbabwe, but all over the globe has emerged as a viable means to reach the market and simultaneously address the issue of financial exclusion(GSMA 2012). In Zimbabwe mobile banking was introduced in the late 2010 by Mobile Network Operators (MNO) and banks later joined the scramble(Kufandirimbwa et al., 2013).

The various products offered by these institutions were accepted to various extents with some providers such as Econet more widely adopted than the otherproviders.

It is not explicitly clear why certain providers are more successful compared to other providers. The factors that are at play are not very apparent either. Considering that the product and its characteristics are quite similar, it is important to understand the disparity in uptake of mobile banking usage. The main impetus of the present undertaking is an enquiry into such dynamics that affect adoption of mobile banking in the Zimbabwean context. To this end,a research framework will be proposed in the subsequent chapter that may aid inunderstanding why users adopt mobile banking.

Mobile Banking is a fairly new phenomenon, thus, findings from this research will not only serve to enrich the literature which is perceived to be lacking by some authors(Mawere et al., 2013; Püschel et al., 2010; Yang, 2009; Baraghani, 2008; Laukkanen, 2007). This research identifiedthe key factors that affectedadoption and use of mobile banking in the Zimbabwean context. Conclusions and recommendations were made from the results. The researcher believes this investigation will, however,assist other researchers and combine studies done in African countries such as Ghana (Tobbin, 2012), South Africa (Masinge, 2010), Nigeria (Adesinasi, 2012) to provide an better understanding of the dynamics affecting the adoption of Mobile Banking technology in Africa and the rest of the world.

Chitungo & Munongo (2013)conducted a similar research in Zimbabwe focusing mainly on extending the Technology Acceptance Model (TAM) to mobile banking in rural Zimbabwe. They highlighted the need for further studies to be carried out in urban Zimbabwe and perhaps use a different model from the TAM. With that consideration, the current study extended theUnified Theory of Acceptance and Use of Technology (UTAUT2)model to investigate the factors influencing the adoption of mobile banking in Zimbabwe. The UTAUT2 model is an integrated framework that explains 'behavioural intention' and 'actual usage behaviour' as it relates to technology acceptance (Venkatesh et al., 2012). It is further discussed in the review of literature.

1.2 Background

Mobile banking in Zimbabwe took the stage in late 2010 and early 2011. Table 1.1 summarises some of the mobile banking service providers including their product offering.

Table 1.1: Mobile Banking Solutions in Zimbabwe

Institution	Mobile Product
Tetrad	E-Mali
AfriAsia (Bank)	Cellcard
NetOne (MNO)	OneWallet
Telecel (MNO)	Skwama
Econet (MNO)	EcoCash
FBC Bank	Mobile Moola
ZB Bank	SMS Banking
CABS (Bank)	Textacash
CBZ Bank	Smart Money
*NetOne (Re-Launch)	OneWallet
*Telecel (Re-Launch)	Tele-Cash
*CBZ (Re-Branding)	Smart Money

Adapted from: Kufandirimbwa et al. (2013)

On a global scale there is no case more successful as the case of Safaricom's M-PESA. It is arguably the most successful uptake of mobile banking even today. Safaricom's M-PESA in Kenya was so successful to the extent that 43 percent of the country's Gross Domestic Product (GDP) flows through M-PESA (Safaricom, 2014).

Locally, mobile banking in Zimbabwe was first introduced on a wide scale by MNO's, initially through NetOne Cellular Private Limited in the year 2011. Later Telecel introduced its very own Skwama, which was withdrawn by Telecel in its infant stages (Techzim, 2012). Econet later launched Ecocash in September 2011. According to the Chronicle (2014) in less than 2 years from launch, Eco-Cash uptake was 31 percent of the Zimbabwean adult population with transactions that exceeded $200

million monthly. This in comparison constitutes 22 percent of Zimbabwe's Gross Domestic Product (GDP) (The Chronicle, 2014).

The other providers' uptake was not as successful as Econet's Eco-Cash, despite arriving to the market first. According to Twomey (2013)more than 200 similar systems were introduced in emerging markets across the globe, but only 10 percent have achieved momentum. This presents a need for a deeper understanding of the dynamics that influenced individuals choosing to use the service. There are factors that can explain why mobile banking adoption varies to such great extents, which the current research undertook to unravel.

The Reserve Bank of Zimbabwe(RBZ) Acting Governor announced that as at 31 December 2013, a total of 3 million customers were registered for mobile banking services, a phenomenal increase from 1.7 million as at 31 December 2012 (Dhliwayo, 2014). The total value of mobile banking transactions was $2.09 billion as at the end of 2013, compared to $382 million as at end of 2012 (Dhliwayo, 2014).There may be great potential for growth and revenue for mobile banking providers if the product is accepted.

1.3 Statement of the Problem

Investment in mobile banking services is associated with risk of poor uptake in adoption by the end users(Püschel et al., 2010). It is therefore important that project promoters understand pre-adoption and post-adoption user perceptions and attitudes of different customers(Yu & Fang, 2009) in order to minimise the potential risk. However, product uptake experiences remain mixed. While M-PESA (Safaricom) and Eco-Cash from Econet Zimbabwe have received high uptake, NetOne did not get much uptake forcing the company to re-launch in 2013. Telecel also launched Skwama in 2011, before Eco-cash, which was quickly taken off the shelf and re-launched in 2014, branded as Tele-Cash (Techzim, 2014)

It is therefore important that a study is conducted to explore the dynamicsinfluencing the choice to use mobile banking, so as to improve the uptake andto improve business decisions. This study attempts to close this gap by exploring the factors affecting mobile banking adoption in Zimbabwe.

1.4 Research Objectives

The main objective of this study is to explore the factors that influence the adoption of mobile banking in the Zimbabwean market. More specifically the study seeks to:

1. Understand the dimensions influencing adoption of mobile banking in Zimbabwe.
2. Conceptualise a framework to help explain the uptake of mobile banking adoption in Zimbabwe.
3. Make some strategic and policy recommendations.

1.5 Research Questions

The following are the research questions for the study:

1. What are the main factors that influence the adoption of mobile banking in Zimbabwe?
2. What models or frameworks exist that can help to explain the dynamics affecting the mobile banking adoption in Zimbabwe?
3. What is the proposed model for the study

1.6 Justification of Research

Zimbabwe is facing probably its worst downturn since the introduction of the multi-currency regime in 2009, characterised by falling Gross Domestic Product (GDP), high interest rates, liquidity crunch and increasing costs of production and operations(Worldbank, 2013). At the centre of achieving economic growth of the economy is the financial sector (Dhliwayo, 2014). With that said, the need to provide cost effective alternatives to serve customers and reaching a wider audience of customers is of utmost importance for the Zimbabwean economy to grow.

Ernst & Young (2009)highlighted that access to financial services in rural areas is particularly costly and very limited. They concluded that a large proportion of the population therefore has little or no access to traditional financial services. Theexceptional reach of the mobile phone, helped by the proliferation of low-cost

handsets, represents a significant opportunity to create profitable services for the unbanked or under-banked people(Ernst & Young, 2009).

Mobile banking has helped broaden access to financial services, including savings and payment products(Demirgüç-kunt & Klapper 2012). Mobile banking permits not only a cost effective and convenient alternative but also provides a platform to reach more customers, particularly the unbanked, addressing the issue of financial exclusion. In order for this to materialise, it is necessary to understand the factors that come to play in influencing the decision to adopt this new technology. Understanding this phenomenon will also aid businesses with the knowledge and understanding to ensure a successful roll out of mobile banking services. In a period of less than 3 years two MNO have already launched the same product twice, showing the great importance of understanding the factors that come to play.

Lastly, previous researchers indicated that the literature concerning mobile banking is still in its infancy stages (Püschel et al., 2010).This study is aimed to fill the void in literature by providing a unique perspective to the study, which is the adoption of mobile banking in urban Zimbabwe, more so, less researchers have extended the UTAUT2 model toinvestigate what influences adoption (Samudra & Phadtare, 2012).

The findings from this research study can be used by organisations wishing to engage, improve or understand mobile banking services for better decision making.

Kufandirimbwa et al. (2013) reported that approximately 1.1 million people in Zimbabwe have a bank account (9% of the total population) which is almost 3 times higher than the number of mobile banking customers. Furthermore, they reported that more than 70 out of every 100 people have a mobile phone and ownership is predicted to reach 100% by 2015 hence the opportunity of mobile banking in Zimbabwe provides great prospects to those who comprehend the factors that affect adoption.

1.7 Scope of Research

The scope of the research will be limited to Zimbabwe, and the research will be conducted in urban Harare to fill the void identified by Chitungo & Munongo (2013). The research will target at random individuals who are customers of mobile banking services in Zimbabwe. The research will focus primarily on identifying the key factors affecting the uptake of the service in Zimbabwe. The UTAUT2 model is also extended to explain the factors affecting adoption of mobile banking in Zimbabwe. The research will take a qualitative approach in order to explore the factors affecting mobile banking adoption in Zimbabwe.

1.8 Structure of Dissertation

The dissertation comprises five distinct chapters. Chapter One is the introduction of the study whichintroduces the study. It contains the background of the study and the justification of the study. It also contains the research objectives and research questions of the study.

Chapter Two is the literature review of the study. It presents literature on mobile banking adoption in Zimbabwe. It attempts to evaluate and analyse prior relevant literature. It reviewstheoretical frameworks on innovation adoption to assist in better understanding adoption of mobile banking in Zimbabwe.The literature review also aims to answer all the research questions identified above.

Chapter Three describes the Research Methodology.It outlines the research approach and design, including the research methods adopted. It also describes the sampling technique, the data collection processand the limitations of the methods are also discussed.

Chapter Four presents' results and analysis, data collected from interviews are analysed and discussed in this section. It goes further to compare the findings of the present research with similar or previous studies.

Chapter five is the final chapter which covers the conclusions, recommendations, study limitations and suggests areas for further research.

1.9Summary

This study explores the factors that affect the uptake of mobile banking services in urban Zimbabwe, guided by the UTAUT2. It will alsoextend the UTAUT2 model to test for the constructs against Zimbabwean users of mobile banking. Two MNO have in essence re-launched their product offering of mobile banking indicating a misconception of the factors that affect the adoption of the service. It is costly to re-launch a product in terms of advertising, branding, additional software and hardware that is largely capital intensive, and to this end the research attempts to investigate the factors affecting adoption of mobile banking in Zimbabwe. To reduce the risk of poor adoption, the study attempts to investigate these factors to assist companies make more informed decisions pertaining to rolling out mobile banking.

Chapter Two
The Literature Review

2.1 Introduction

This chapter reviews literature on mobile banking. It attempts to update the literature thus far concerning mobile banking. The chapter begins with defining the mobile banking construct. The technology adoption process is defined and explained. It proceeds with an overview of the mobile banking scenario around the globe including performance. The theoretical framework surrounding adoption literature and empirical evidence are also explored. Lastly the chapter concludes with a proposed conceptual framework by extending the UTAUT2 model.

Literature on mobile banking is still in its infancy stages considering how long mobile banking has been on the scene (Puschel et al., 2010). It is minimal partly because the technology or service is new whichgained popularity in the last decade or so(Malhotra 2011). In this study mobile money and mobile banking are used interchangeably.

2.2Mobile Banking

According to Tiwari et al., (2006) mobile banking refers to the provisioning and availing of bank related financial services through the aid of mobile telecommunication devices. Mobile banking is considered a part of Mobile Commerce (m-commerce) and is believed to be the natural evolution of Internet Banking (Samudra & Phadtare, 2012). The term m-commerce has been extensively used to describe a subset of electronic commerce (e-commerce) and refers to transactions with monetary value that are conducted via mobile devices (Koenig-Lewis et al., 2010).

Mobile banking is a service that enables customers to do banking through mobile phones and provides around the clock access to banking. It is therefore a conduit that brings traditional banking services to users of handheld mobile devices facilitating anywhere and anytime banking (Saleem & Rashid, 2011).

Agwu & Carter (2014) define mobile banking as a setting where bank customers access the bank's networks via mobile devices through a telecommunications wireless network. Akpan (2009) describes it as an application of m-commerce that enables customers to bank virtually at any time and place. Medhi et al. (2009) describe m-banking as a cornerstone where banks have taken advantage of this innovation in order to increase customer satisfaction, manage costs, increase profits and bring positive transformation of payment system in an economy.In this study mobile banking is defined as essentially a system that provides access to financial services through the use of mobile phones.

2.2.1 Mobile Banking around the Globe

Mobile banking services are increasing across the globe correlating to the statistics concerning number of mobile phones and penetration ratios. Medhi et al. (2009) state that the number of mobile phone users has long exceeded the number of people with bank accounts across the globe, while the Yankee Group (2008) also reported that mobile phones are increasing at an annual rate of 14 percent around the globe. Furthermore, the mobile penetration ratios in most parts of the world are greater than 60% with some parts exceeding 100% (GSMA 2012).

Figure 2.1 is an excerpt from GSMA (2012) report for Sub-Saharan Africa (SSA) showing the total connections, populations, penetrations in the region since 2000 (GSMA 2012).

Figure 2.1: Mobile connections, population and penetration in SSA
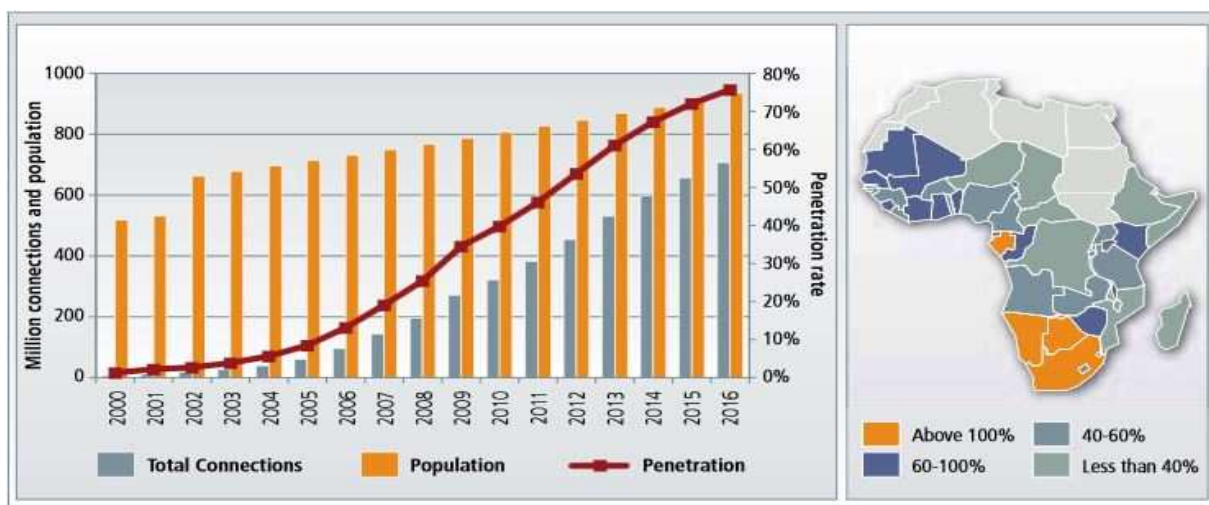
Source: GSMA (2012)

The penetration ratios indicate the pace of a fast growing market of mobile users and therefore potential users of mobile banking. Additionally, the GSMA's mobile tracker for mobile banking solutions in Figure 2.2 shows the number of mobile banking products in a host country around the globe (Pénicaud 2014).

Figure 2.2: GSMA tracking of Mobile Banking Solutions/Products.

Source: **Pénicaud (2014)**

Figure 2.2 shows that the presence of mobile money products is considerably higher in Africa as compared to other regions, which could signify the disparity in terms of financial inclusion between Africa and other regions. A single host Kenya has more than 19 different mobile money solution providers. Ernst & Young (2009) believe that the lack of access to formal banking channels in Africa opened the door for mobile operators to build successful mobile payment services. They also highlighted that the gap that exists between banking penetration and mobile penetration suggests that while the masses do not have access to financial services, they do have mobile phones (Ernst & Young, 2009). A large number of firms are already taking advantage of this phenomenal growth of mobile telecommunications in Africa and benefiting from the large number of unbanked people (Ernst & Young, 2009).

2.2.2 Performance of Mobile Banking

Pénicaud (2014) study findings on total revenues generated by some mobile money providers are presented in Figure 2.3. The percentage of total revenues generated by mobile money, which were recorded amounts to 18% of total revenues in the case of Safaricom's M-PESA.

Figure 2.3: Total revenues generated by mobile money.

Source: **Pénicaud (2014)**

Literature reveals cases recorded of resounding success in rolling out mobile banking such as Safaricom's M-PESA in Kenya(Safaricom, 2014) and Econet's Eco-Cash(Kazunga, 2014) in Zimbabwe. Safaricom's M-PESA has reported transactions amounting to 43 percent of Kenya's GDP flowing through M-PESA (Safaricom, 2014). In the case of Eco-Cash, transactions on the system amounted to 22 percent of Zimbabwe's Gross Domestic Product (Kazunga, 2014). These high percentages are essentially a positive correlation of high adoption for these products. The figures themselves cannot explain why the adoption was high or why not more of these providers are not as successful, in terms of adoption and consequently revenues (Twomey, 2013).

Figure 2.4 Expansion of mobile money services
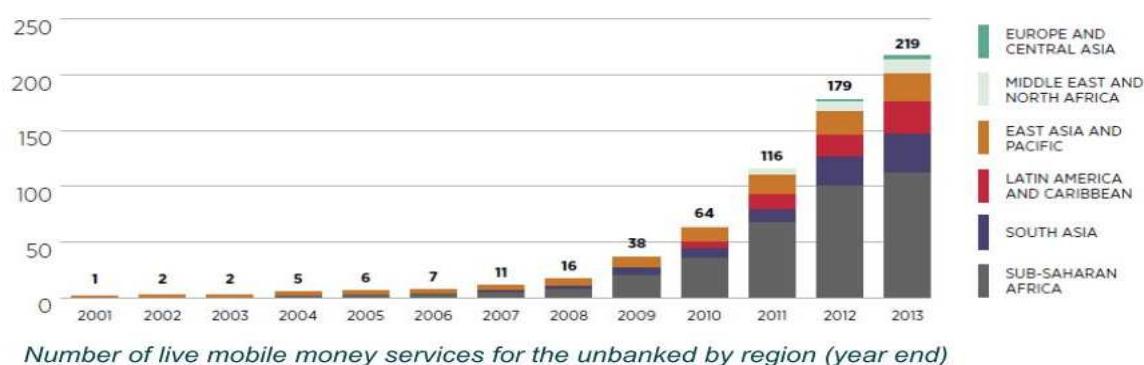
Source: **Pénicaud (2014)**

Figure 2.4 shows 219 mobile money solutions in 84 countries emphasising the impact that mobile banking has made on the industry, which in turn signifies attempts by institutions to increase their market share, revenues and profits. The number of products doubled in just 2 years between 2011 and 2013. Products increased from 116 to 219 approximating a growth rate of 89%, additionally, in the 5 year period between 2008 and 2013 the products multiplied at a rate more than 1200%.

Despite rapid growth in the sector,Twomey (2013)alluded that not all providers have achieved such success as Safaricom's M-PESA.There are indeed factors that might be similar or different depending on prevalent circumstances in each case that influences behaviour towards adoption and use of the service.

2.3 Adoption

In this study of the factors affecting mobile banking adotion in Zimbabwe, it is important to understand the concept of adoption as it relates to technology acceptance. Baraghani (2008) describes adoption as the acceptance and continued use of a product or service.Rogers and Shoemaker (1971) posit that for consumers to adopt or use a technology they undergo a process.Rogers (1995) defines adoption process as the process through which an individual or other decision making unit passes from knowledge of an innovation, to forming an attitude towards the innovation, to a decision to adopt or reject, to implementation of the new idea, and to confirmation of this decision. According to Rogers (1995) the adoption process consists of the following five distinct stages:

- Awareness
- Interest
- Evaluation
- Trial
- Adoption

Rogers (1995) described the awareness stage as typically the stage where a potential user is exposed to the innovation but lacks complete information about it. The interest stage the individual develops an interest in the innovation and seeks

additional information. At the evaluation stage the userappraises the innovation to decide whether or not to use it, while at the trial stage, the individual makes full use of the innovation(Rogers, 1995). At the adoption stage the individual decides to continue the full use of the innovation.In this study mobile banking adoption is considered acceptance and continued use of mobile banking services because this is essentially the crux of this enquiry.

2.4 Theoretical Framework

The field of Information Systems (IS) research has over the years contributed to the knowledge of understanding human behaviour in relation to technology adoption(Venkatesh et al., 2003). The studies sought to explain why and how individuals adopt new information technology. This resulted in the development of technology acceptance and adoption research which in turn developed several competing and complementary models each with a different set of acceptance determinants(Alshehri et al., 2012). These models continued to evolve over the years as a result of persistent efforts towards models' validation and extension that took place during the period that each model was presented to the research community(Alshehri et al., 2012).

Mobile banking as a new technology is no exception as researchers continue in efforts to try and understand the factors that affect adoption of mobile banking in various parts of the world as well as various circumstances (Püschel et al., 2010). According to Püschel et al. (2010) empirical studies suggested the use of theories from information systems research and psychology but no standard exists to explain how to apply these theories in mobile banking.Püschel et al. (2010) noted studies by Sulaiman et al. (2007) and Brown et al. (2003) who applied Roger's innovations diffusion theory (IDT), while Luarn and Lin (2005) opted for the Technology Acceptance Model (TAM) and Pedersen (2005) applied the Decomposed Theory of Planned Behaviour (DTPB), Koenig-Lewis et al. (2010), Tobbin (2012) and Kabir (2013) applied TAM, whileShao & Siponen (2011) and Alshehri et al., (2012)used the UTAUT and many others who also used varies IS adoption models namely Puschel et al. (2010), Chitungo and Munongo (2013), Adesinasi (2012), Thakur (2013) and Saleem & Rashid (2011).

In this study the UTAUT2 model will be adopted as the theoretical framework of the study. This model is a unified model that was based on eight theoretical frameworks that evolved over the years as researchers continuously evaluated and extended IS research models in an attempt to create the best model that could explain the dynamics of technology acceptance. A brief overview of these models and their main determinants is reviewed.

2.4.1 Theory of Reasoned Action (TRA)

Some of the earliest works on technology adoption were the works of Fishbein and Ajzen (1975) who proposed the Theory of Reasoned Action (TRA). This is a widely adopted model from social psychology and is concerned with the rudiments of consciously intended behaviours (Fishbein & Ajzen 1975).This theory postulates that there are three main variables that aid in predicting human behaviour in a social setting and these include attitudinal, social influence and intention variables (Baraghani 2008). Additionally,it proposes that an individual's behavioural intention (BI) is explained by the individual's attitude towards performing thatbehaviour (ATB) together with subjective norm (SN). SN was defined as how other relevant people think that an individual should or should not do(Baraghani 2008). This theory hypothesises that BI is the only direct antecedent of actual behaviour (AB). According to Fishbein & Ajzen (1975) BI can predict AB if certain conditions are present;

- The degree to which the measure of intention and the behavioural criterion correspond with respect to their levels of specificity of action, target, context, and time frame.
- The stability of intentions between time of measurement and performance of the behaviour.
- The degree to which carrying out the intention is under the volitional control of the individual.

This theory is mainly criticisedbecause it does not specify the beliefs that are operative for a specific behaviour, this implies, researchers must identify the beliefs that are present for individuals regarding the behaviour under inquiry(Baraghani 2008).

2.4.2 Innovation Diffusion Theory

Innovation Diffusion Theory (IDT) also attempted to explain the process by which innovations in technology are adopted by users. An innovation was defined as an idea, practice, or object that is perceived as new by an individual or other unit of adoption(Rogers 1995). Diffusion is defined as "the process by which an innovation is communicated through certain channels over time among the members of a social system".This theory attempts to on explain how new ideas and concepts gain widespread adoption (Baraghani 2008). According to this model, there are attributes associated with technological innovations which affect the rate of adoption.

Relative advantage - "The degree to which an innovation is perceived to be better than the idea it supersedes."

Compatibility – "The degree to which an innovation is perceived as consistent with the existing values, past experiences, and needs of potential adopters."

Complexity – "The degree to which an innovation is perceived as relatively difficult to understand and use."

Trialability – "The degree to which an innovation may be experimented with on a limited basis."

Observability – "The degree to which the results of an innovation are visible to others."

The literature confirms that among the attributes, only relative advantage, compatibility and complexity are consistently related to innovation adoption (Chen et al. 2000).

Rogers reviewed nearly 1500 studies where variants of IDT are used to investigate the adoption of technological innovations in an array of settings including agriculture, healthcare, city planning, and economic development. Rogers developed his IDT constructs by identifying the product attributes that most greatly influenced adoption(Baraghani 2008).

2.4.3 Technology Acceptance Model

Davis (1989) proposed the Technology Acceptance Model (TAM), which was adopted from the theory of reasoned action. The TAM posits that the readiness of a user to adopt a new technology is determined by the user's attitude, which in turn is influenced by two salient beliefs which are perceived usefulness (PU) and perceived ease of use (PEOU). PU was concerned with the perception a user had concerning the benefits that using the technology would provide, whilst PEOU referred to the extent to which individuals believed using the system would be simple or easy (Davis, 1989).

However, this model is not without criticism some researchers argue that, although extensively used, it is not sufficient to rely only on the two constructs to investigate a user's technology acceptance. It has been agreed among information system researchers on the validity of TAM in predicting an individual's acceptance of new technologies (Koenig-Lewis et al. 2010; Shen et al. 2010; Kulviwat et al. 2007; Yu & Fang 2009; Yang 2009). Critics of TAM also argue that the model is deterministic in that it assumes once there is PU & PEOU, there will consequently be acceptance. TAM was later modified to TAM2 and TAM3.

2.4.4 TAM2

Technology Acceptance Model was modified to TAM2 by Venkatesh and Davis (2000), TAM2 included a few additions to the original model. Specifically, it introduced determinants of Perceived Usefulness. TAM2 included the following variables: usage, intention to use, perceived usefulness, experience, social influence processes (subjective norms, voluntariness and image), and cognitive instrumental processes (job relevance, output quality, result demonstrability and perceived ease of use)(Thakur 2013).

2.4.5 Motivational Model

Within the context of information technology acceptance, the motivational model attempts to explain adoption of technology based on two main constructs on motivation which are Extrinsic and Intrinsic motivation (Baraghani 2008).Extrinsic motivation was defined as the perception that users will want to perform an activity

based on the belief that certain value will be achieved through adoption such as improved job performance, pay and promotion (Venkatesh et al., 2003). With intrinsic motivation, users were compelled to adopt the technology based on their own will and desire with no external influences or expectations. The main constructs of the model were outcome expectations on performance, self-efficacy, affect (An individual's liking for a particular behavior) and self-anxiety(Venkatesh et al., 2003).

2.4.6 Theory of Planned Behaviour

The theory of planned behaviour (TPB) originated from an extension of TRA by including an additional construct called perceived behavioural control, which predicts behavioural intentions and behaviour(Baraghani 2008). In TPB, behaviour is determined jointly by both behavioural intention (BI) and perceived behavioural control (PBC), while behavioural intention is influenced by the attitude towards behaviour, the subjective norm, and the perceived behavioural control (Püschel et al., 2010).This theory has been criticised because of the need to differentiate the difference between behaviors from intention and that there is no provision in the model for considering whether the probability of failing to perform is due to one's behavior or due to one's intentions(Baraghani 2008).

2.4.7 Model of PC Utilization (MPCU)

This model presents a competing perspective to that proposed by TRA and TPB. Thompson et al.,(1991)refined the Triandis' model to create the MPCU that attemptsto predict the utilisation of personal computers (PC). According to Venkatesh et al.,(2003)the model is particularly suited to predict individual acceptance and use of technology. The MPCU was based on the following constructs; job fit, complexity, long-term consequences, affect towards use, social factors and facilitating conditions. These were the main determinants of intention behaviour to adopt or utilise computers(Thompson et al., 1991).

2.4.8 Decomposed Theory of Planned Behaviour (DTPB

Taylor & Todd (1995) decomposed the TPB by departing from the original constructs of TPB and decomposed subjective norm, perceived behavioural control and attitude

constructs into new sub-constructs. The DTPB split subjective norm into peer influence and superior influence(Baraghani, 2008). Whilest, perceived behavioural control was decomposed into self-efficacy, resources facilitating conditions, and technology facilitating conditions. Additionally, the constructs where further split into three dimensions based on TAM variables of perceived usefulness and ease of use, and compatibility (Püschel et al., 2010).

With the aid of these frameworks, more contemporary research has attempted to understand the subject of technology adoption in diverse parts of the world,such asAgwu & Carter (2014); Baraghani (2008); Chitungo & Munongo (2013); Koenig-Lewis et al. (2010); Laukkanen et al. (2008);Püschel et al. (2010); Tobbin (2012); Venkatesh et al. (2012) and Yu (2012) .

One of the most recent developments in the domain of technology acceptance is the UTAUT2 model by Venkatesh et al.(2012). This model originated from UTAUT model, which was an integrated version of eightdifferent modelsin the field of IS research mentioned above.According to Venkatesh et al. (2012) the UTAUT2 model is based on recent constructs validated by empirical studies that sought to explain technology adoption. The UTAUT2 model will serve as the theoretical framework for this study and is discussed next.

2.5The Unified Theory of Acceptance and Use of Technology (UTAUT2)

Similar to previous acceptance and adoption models, it aims to explicate user intentions to use an Information System (IS) and further the usage behaviour (Venkatesh et al. 2012).A unified model was created based on the conceptual and empirical similarities across eight different modelsrelating to the domain of acceptance of information technology(Alshehri et al., 2012). It integrated the following models, the TRA, TAM, TPB, Decomposed TPB, IDT, Social Cognitive theory (SCT), the Motivational Model, the Model of PC utilisation and the combined TAM and TPB models. The UTAUT integrates the technology acceptance domain into one theory with 'behavioural intention' and 'actual usage behaviour' as main dependent variables (Venkatesh et al. 2012).

According to Alshehri et al. (2012)the UTAUT model presented a combined model that provided a more complete picture of the acceptance process than the previous models that existed.The UTAUT2 model has seven key constructs, four of which are from theoriginal UTAUT model and other threethat where added specifically to explain adoption acceptance in the consumer context(Venkatesh et al., 2012).The sevenconstructs include performanceexpectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, price value and habit.

Age, gender, and experience were hypothesised to moderate the effects of these constructs on behavioural intention and technology use (Venkatesh et al., 2012).

Figure 2.5 The UTAUT2 Model
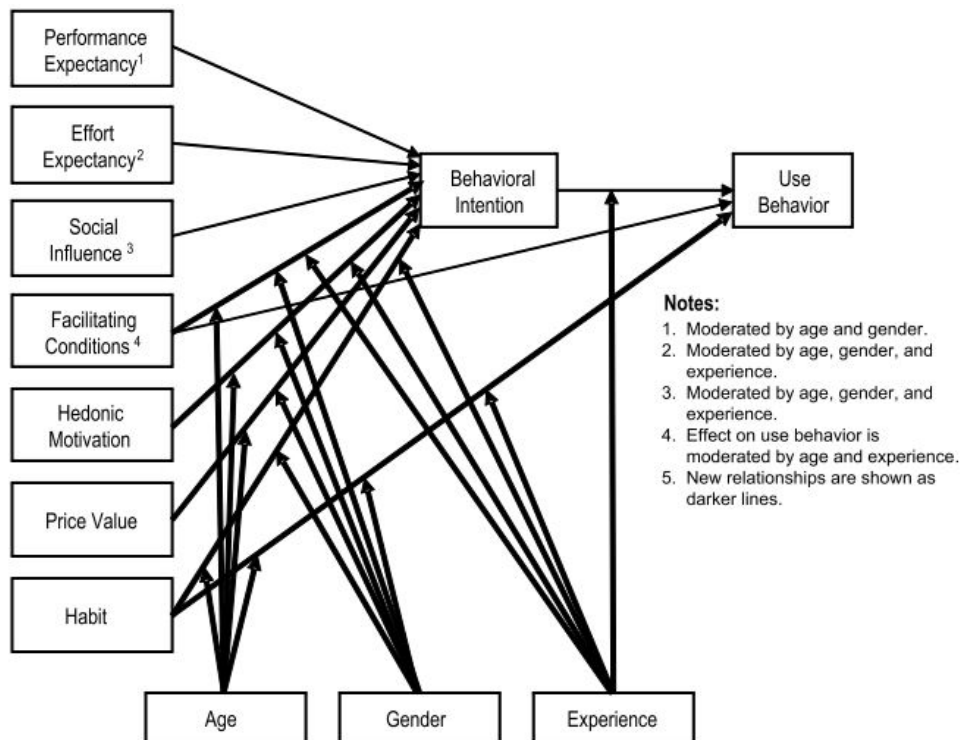
Source: Adopted from **Venkatesh et al. (2012)***.*

This model is preferred for the current study because it presents a combined effort from previous research based on recently developed and accepted constructs that were catered for the individual (Alshehri et al., 2012).

2.5.1UTAUT2 Constructs

The UTAUT2 model comprises seven keyconstructsthat explain behavioural intention and adoption. The constructs in the model are described as follows(Venkatesh et al. 2012; Venkatesh et al. 2003, p 447-453).

Effort expectancy (EE)isdescribed as the degree of ease associated with the use of the system.According to Venkatesh et al., (2012) EE is analogous to three constructs namely, perceived ease of use, complexity and ease of use. The relationship between effort expectancy and intention to use has been validated by many previous studies(Yang 2013).

Facilitating conditionsrefer to the extent to which individuals believe that organisations are capable of supporting a system in terms of infrastructure and other organisational factors (Venkatesh et al., 2003).Facilitating conditions was able to explain the three constructs from the TPB model, MPCU model and IDT model; these include perceived behavioural control, facilitating conditions (described in MPCU) and compatibility respectively. Mobile banking requires extensive coverage in terms of IT infrastructure and merchant outlets to extend the reach of the service to mobile subscribers. Thus it is proposed:

Proposition 1: Facilitating conditions influence consumer's intention to adopt mobile banking services in that the lack of infrastructure and or merchants to support a product offering could affect uptake.

Performance expectancy (PE)is defined by Venkatesh et al. (2003) as "the degree to which an individual believes that using the system will help him or her to attain gains in job performance". PE is analogous to perceived usefulness in the TAM. **Social influence (SI)**isthe referred to the degree to which individual are influenced by others to adopt technology.

Hedonic motivation is defined as the fun or pleasure derived from using a technology(Venkatesh et al., 2012).Hedonic motivation, has been found to be a key predictor of technology acceptance in much consumer use setting(Yang 2013). Thus it is proposed:

Proposition 2: Hedonic Motivation influences a consumer's intention to adopt and use mobile banking services in that pleasure derived from using the service positively influences uptake.

Price Valueis defined as price value as consumers' cognitive tradeoff between the perceived benefits of the applications and the monetary value. In this study price value is synonymous with cost.**Habit** is viewed as prior behaviour and is measured as the extent to which an individual believes the behaviour to be automatic.

2.5.2Criticism

Compared to UTAUT, the extensions proposed in UTAUT2 produced a substantial improvement in the variance explained in behavioural intention and technology use (Venkatesh et al., 2012). Authors who have used the UTAUT2 model attest to its predictive ability on intention behaviouron technology acceptance (Alshehri et al., 2012; Samudra & Phadtare, 2012; Shao & Siponen, 2011; Yang, 2013). Conversely, a study by Williams et al., (2011)questions the validity and usefulness of the UTAUT2 model in research. They argue about the value of UTAUT, they stated that despite a large number of citations there is little real use of the model in practice.

Williams et al., (2011) conducted a systematic review of 450 citations of the originating article in an attempt to better understand the reasons for citation, use and adaptations of the theory and their findings revealed that although a large number of studies have cited the originating article since its appearance, only 43 actually utilised the theory or its constructs in their empirical research for examining IS/IT related issues(Williams et al. 2011). Nevertheless, the UTAUT was later modified to UTAUT2 model and unlike the other models mentioned the UTAUT has been on the scene shorter than the other models which might explain the low usage of the model.

2.6 Empirical evidence on factors affecting mobile banking adoption

There are many factors that have been identified by empirical research conducted in concerning adoption of mobile banking which relates to the present study.

Most authors discovered that perceived use, perceived ease of use and cost are largely contributing factors to adoption of mobile banking(Yu, 2012; Tobbin, 2012; Laukkanen, 2007; Püschel et al., 2010; Suoranta, 2003; Koenig-Lewis et al., 2010; Masinge, 2010; Adesinasi, 2012; Thakur, 2013; Laforet & Li, 2005). It is important to understand how mobile banking has been adopted in other parts of the world so as to assist the study with knowledge of improving adoption in Zimbabwe. The literature follows with an account of more empirical researchfrom different parts of the world. Theseare reviewed from three different perspectives before focusing on Zimbabwe. The results are presented in three categories.The first category groups findings from the developed nations. The second category reviews studies from Asia and Emerging markets and the last group examines the empirical studies Sub-Saharan Africa. The literature reveals the following additional findings;

2.6.1 Developed Countries

Empirical studies in developed nations also sought to explain the dynamics of mobile banking adoption in their own unique environments and circumstances. Studies in Finland, New Zealand and Germany are discussed below.

Laukkanen (2007) conducted a study to investigate the factors affecting mobile banking adoption in Finland. He adopted the Means-end theory to help explain his study. A total of twenty in-depth interviews were conducted with customers of a bank in Scandinavia. The results showed that perceived benefits, (described as location free and efficiency) are main factors encouraging people to adopt mobile banking.

In New Zealand a study by Yu (2009)sought to investigate the factors influencing the use of mobile banking.A survey questionnaire was deployed to collect data from respondents,250 AUT University students were sampled. Results from the study suggested that speed, advertising, compatibility, and self-efficacywere the most influential factors on usage or adoption of mobile banking(Yu, 2009).

Findings from another study by Koenig-Lewis et al., (2010)in Germany showed that compatibility, perceived usefulness, and risk are the major factors affecting mobile banking adoption in the Germany context. Compatibility not only had a strong direct

effect on adoption but was also identified as an important antecedent for perceived ease of use, perceived usefulness and credibility. Trust and credibility were discovered to be crucial in reducing the overall perceived risk of mobile banking. Their proposed model explained 65 per cent of the variance in intention to adopt mobile banking (Koenig-Lewis et al., 2010). This study used an online survey of 263 respondents and the data were analysed using structural equation modeling.

2.7.2 Asia and Emerging Markets

In Malaysia Amin et al., (2008)adopted the TAM model toexplore adoption in their context. A total of 156 respondents were obtained via convenience sampling in Malaysia. They discovered thatperceived usefulness, ease-of-use, credibility, amount of information, and normative pressure influenced the adoption of mobile banking in Malaysia.

Sripalawat et al. (2011)in Thailand adopted the TAM and TPB in their study. An online survey was used to collect data from respondents. A total of 195 questionnaires collected. The results showed that, subjective norm is the most influential factor. The study also found perceived usefulness and self-efficacy to be contributing factors.

Kabir (2013) investigated the factors that influence the users of banking services to use mobile banking in Bangladesh. A self-administered questionnaire was distributed to the clientele of two mobile network operators of Bangladesh, 64 useable questionnaires were returned. Factors such as performance risk, security and privacy risk, time risk, social risk and financial risk were found to be negatively related with the usage, while factors like ability, integrity, benevolence, perceived usefulness, perceived ease of use, relative cost and time advantages were positively related with the intention to use mobile banking services.

In India Thakur (2013) investigated the factors affecting adoption of a new innovation by consumers specifically the mobile payment services. The Technology Acceptance Model was adopted and a sample of urban population was reviewed. Study findingsindicated that performance expectancy, effort expectancy, social influence

and facilitating conditions had a positive impact on mobile payment services adoption among the consumers.

A similar study in China was conducted by Laforet & Li (2005). Findings were also consistent with those from Kibir (2013)in Bangladesh. The constructs of awareness, confidentiality, security, past experiences with computers where salient factors. In the study they utilised the Attitude, Motivation and behaviour theory. A total of 300 respondents were randomly interviewed in the streets of six major cities in China. Based on the findings above, it is thus proposed:

Proposition 3. Perceived usefulnessinfluences consumer's intention to adopt banking services.

Proposition 4. Effort expectancy influences consumer's intention to adopt mobile banking services.

Proposition 5. Cost influences consumer's not to adopt mobile banking if the costs are perceived to be relatively high.

Similar findings were also recorded by Riquelme & Rios (2010) in Singapore. In their study the TAM, TPB, and IDT were adopted. A sample of681 respondents was obtained to collect data. Results were consistent with findings from Kibir (2013) and Laforet & Li (2005) on the predictive power of the perceived usefulness. Other determinants included social norms and risk influences.

In a study by Püschel et al. (2010)that investigated the possibility of extending an integrated framework to explain the adoption of mobile banking technology in the Brazilian context. A quantitative approach was used in the study, with 666 respondents sampled, the partial least squares method was used to analyse the proposed frameworks construct relations(Püschel et al., 2010). The results showed that the proposed framework was able to explain 69 percent of the dependent variable variation. Conversely, the proposed framework was only able to explain 27 percent of the independent variable variation.Lastly the study showed for each group

of users and non-users the predictors' influence over the criterion varied(Püschel et al., 2010).

Saleem & Rashid (2011) research aim was to unravel the mysteries of mobile banking adoption in the banking sector of Pakistan. The results also showed that customer's concerns about security and reliability of the technology are highly significant. Furthermore, the results implied that mobile banking adoption included sophisticated IT technology and service versatility to attract customers. With that said, it is thus proposed:

Proposition 6. Security influences consumer's intention to adopt and use mobile banking services in Zimbabwe.

2.7.3 Sub Saharan Africa

In the Sub-Saharan region a few studies were also conducted in the realm of technology adoption and acceptance. Adesinasi (2012) conducted research in Nigeria to assess the level of knowledge users had concerning mobile banking then conversely adoption. A total of 270 respondents were surveyed. It was discovered that there was high knowledge of mobile banking but conversely a low uptake compared to the number of customers who already had bank accounts. Perceived credibility and perceived financial cost are the major drawbacks while social influence, perceived usefulness, associated reward, perceived self-efficacy, compatibility, awareness and perceived ease of use were observed as determinants of mobile banking adoption in Nigeria. Thus, it is proposed:

Proposition 7: Social influence contributes to consumer's intention to adopt and use mobile banking services.

Proposition 8:Market awareness influences consumer's intention to adopt and use mobile banking services.

Tobbin (2012) conducted a qualitative study to determine the deep motivations and associations that underlie an unbanked consumer's intentions to adopt mobile

banking services in Ghana. Findings revealed that perceived usefulness and perceived ease of use were also identified as key factors in the adoption of mobile banking. Other factors were identified as economic factors and trust which influenced the rural unbanked intention to adopt and use mobile banking services. Economic factors were described as the availability of surplus money.

In South Africa, Masinge (2010)conducted a study on the factors influencing the adoption of mobile banking services at the Bottom of the Pyramid (BOP) in South Africa, using TAM2. The findings showed similar results, customers in the BOP will consider adopting mobile banking as long as it is perceived to be useful, easy to use and cost was identified as the most critical factors to consider (Masinge, 2010).

2.7.4 Zimbabwe

A few studies were conducted in Zimbabwe that also tried to explain technology adoption of mobile banking. A study by Thulani et al., (2011) sought to investigate the benefits of SMS banking and the challenges that banks faced with regards to adoption.A sample of fifteen commercial banks was chosen, it was discovered that accessibility and affordability were the major drivers to the adoption of SMS banking.In rural Zimbabwe a study on mobile banking adoption by Chitungo & Munongo (2013) extended the TAM. A total number of 275 questionnaires were used to gather data on the applicability of the extension of Technology Acceptance Model in determining factors that influence unbanked rural communities intention to adopt mobile banking services. The study established that cost, perceived use and ease of use all positively contributed to the adoption of mobile banking, which is consistent with most of the studies identified thus far.

Another research conducted in Zimbabwe by Mawere et al., (2013) also showed similar resultswithChitungo & Munongo (2013). The study indicated that perceived usefulness, perceived ease of use, trust, behavioural control, Self-efficacy, subjective norms, and external influence are the major factors affecting the intention of mobile users to adopt mobile banking services in Zimbabwe.

The review of literature shows that most of the studies examined the applicability of TAM, TPB, TRA and little empirical studies on applicability of the UTAUT2 model(Alshehri et al. 2012). Based on the empirical studies highlighted above a new model will be proposed that attempts to explain the intention behaviour towards mobile banking in Zimbabwe. The model relies on some of the constructs from the UTAUT2 model and also the variables that were identified in the empirics above. The proposed model for the study is discussed next.

2.8 Proposed framework for the Study

Literature identified common factors that have been established as the main factors responsible for influencing mobile banking adoption in different parts of the globe. Propositions were made based on those actual factors identified. In view of this, the proposed conceptual frame work for the current study is summarised in Figure 2.6.

Figure 2.6 Research Model
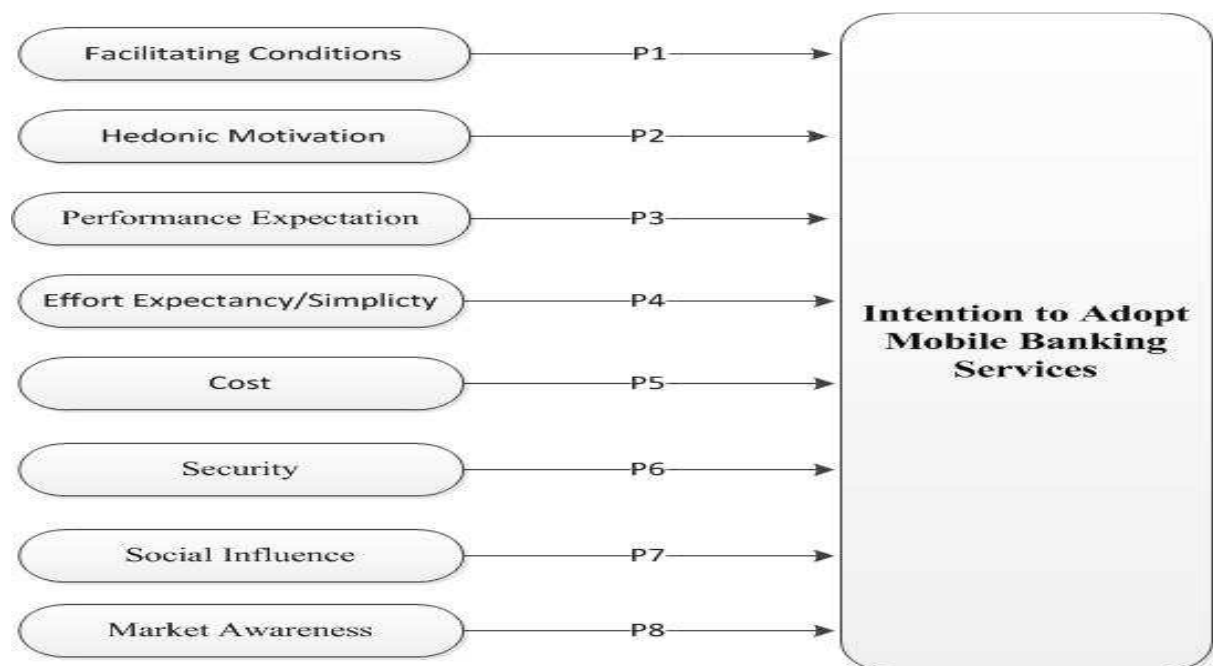
The proposed research framework is based on the same constructs identified in the literature. The Performance Expectancy here is defined as utility derived or perceived from use of the technology. The rest of the constructs are defined the same way as in the literature.

2.9 Summary

Mobile banking adoption has been a topical issue in recent years and studies continue explore the factors affecting the adoption of this technology. The need for this important research that seeks to explain adoption of the service to improve rollout success, which in-turn avoids the cost of failures, re-launching and other huge capital outlays that are involved with projects of this magnitude is critical. Empirical evidence showed that factors such PU, PEOU, social influence, credibility, compatibility and cost were the most prevalent factors determining adoption.

Chapter Three
The Research Methodology

3.1 Introduction

This chapter describes the research methodology of this qualitative study of the factors affecting the adoption of mobile banking in Zimbabwe. It begins with a close look at the research design as depicted by the research onion. It looks at the practical approach adopted to achieve the objectives. The research philosophy is explained. Data was collected using semi-structured interviews and direct observation. The chapter then looks at the qualitative analysis techniques which were used for analysing the data. In addition, it provides a detailed outline of the primary research method, sampling technique used, the data collection and analysis process and limitations of the study. Lastly it concludes with a discussion of issues related to validity and reliability of measurements that were utilised in this study and the ethical considerations made.

3.2 Research Design

According to Saunders et al. (2009) the research design is the general plan of how the researcher intends to answer the research questions of the study. It governs the overall configuration and organisation of the research activity and also determines the type of evidence that is collected and interpreted in order to provide acceptable answers to the research questions (Suoranta, 2003).The research design entails all the activities of the research onion apart from the research philosophy(Saunders et al., 2009).

The research onion was used to guide the researcher. An interpretivism philosophy was chosen with an inductive approach, survey strategy and multi methods. A cross sectional time horizon was chosen based on the nature of this study. Data collection methods included the interview and observations. In this study the rationale for selecting each of the process will be discussed and explained in more detail.

Figure 3.1 Research Onion ®
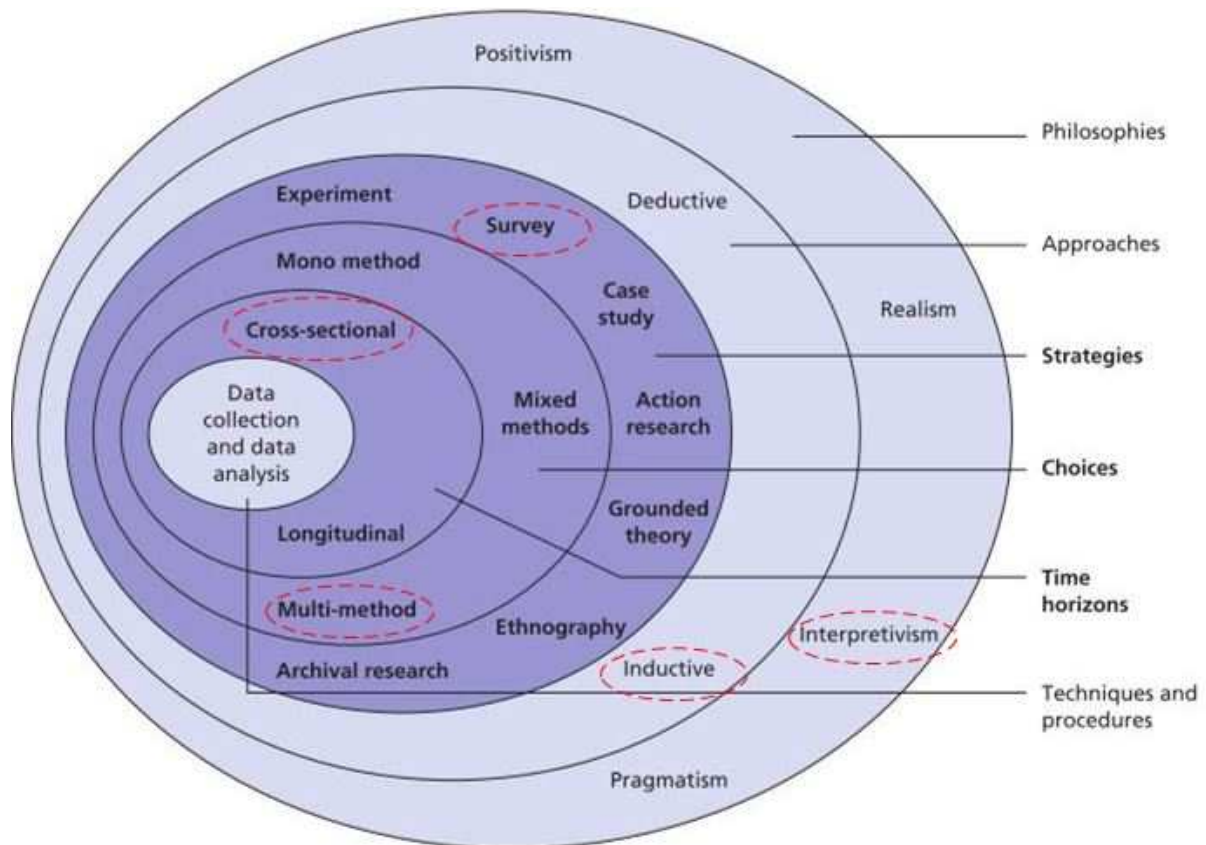
Source: Adopted from Saunders et al. (2009p.138)

The starting point of the research purpose is the research problem. Saunders et al. (2009) believe that the purpose of a research is deeply intertwined in the research questions of the study. The nature and the purpose of a research problem determinethe type of research to be carried out.Researchers argue that there are three ways to view an academic research, it can be categorised as descriptive, explanatory or exploratory(Zikmund, 2000; Yin, 2003). Saunders et al. (2009) posit that a single study can employ more than one purpose. Yin (2003) highlighted that the boundaries between these categories will not always be clear.

According to Zikmund (2000)in order to better understand the nature of a problem an exploratory research can be conducted. Consequently, exploratory research is appropriate to use when the knowledge of the problem at hand is limited as in the case of this current enquiry of mobile banking adoption which is also a relatively new field of enquiry. Furthermore, exploratory studies provide means of discovering what is happening in order to seek new insights,ask questions and assess phenomena in

new light (Saunders et al., 2009 p.139). To this end, an explorative research was undertaken to investigate the research problem. This is largely due to the nature of this inquiry where little knowledge exists of the research problem and also the need to provide a deeper understanding of the phenomena. The research approach is discussed next.

3.2.1 Research Approach

The research approach of this study is qualitative. The distinction between qualitative and quantitative research is a methodological issue. The choiceof a particular research methodology isbuilt on its appropriateness to answer the research questions (Bryman, 1988).According to Denzin & Lincoln (1998)qualitative research is concerned with the process of discerninghow social meaning is constructed. It also concerned with the relationship that exists between the researcher and the topic.

In contrast,a quantitative research is based on the measurement and the analysis ofcausal relationships between variables(Saunders et al., 2009). Berg (2001) discriminated betweenqualitative and quantitative research arguing that qualitative researchreferred to the meanings, concepts, definitions, characteristics, metaphors,symbols and descriptions of things, while quantitative research referred to themeasures and counts of things.

Ritchie & Lewis (2003)indicated that a qualitative approach involves aninterpretative styleto understanding themeanings people give to the phenomena within their social setting. A qualitativeapproach provides a deeperunderstanding of the social world and is based on a small scale sample(Ritchie & Lewis, 2003). Additionally, a qualitative approach usesinteractive data collection methods such as interviews and allows new issues and concepts to be explored(Ritchie & Lewis ,2003; Saunders et al., 2009).

Accordingly, this study adopted a qualitative approach. This complemented findings in the literature on mobile banking which are largely quantitative as shown by the empirical studies in Chapter Two. The qualitative approach assisted in understanding of the phenomenon under study in terms of new insights to be

explored. It enabled the research questions to be answered by providing a detailed account of the factors that affected mobile banking adoption by respondents.I also conducted a qualitative approach because of the need for a detailed understanding of the inquiry at hand, which could only be established by talking directly with people and allowing them to tell their stories unfettered by what we expect to find or what was read in the literature (Creswell, 2007).

Saunders et al. (2009) have highlighted that the research approach can also be classified as inductive and deductive. Furthermore, they differentiated the two approaches. The deductive approach involves a researcher testing a theory that is developed or hypothesised and a research strategy is designed to test the formulated theory (Saunders et al., 2009). With theinductive approach the researcherbegins with collectionof data and data analysis with the aim to develop a theory (Saunders et al., 2009).Zikmund (2000)stated that theinductive research approach is "the logical process of establishing the general proposition on the basis of observation of particular facts".The current study utilised the inductive approach as it provides the option to have more explanation of what is going on(Saunders et al., 2009).

3.2.2 Research Strategy

This study employed the survey research strategy from the research onion.Saunders et al. (2009) argue that the survey strategy is usually associated with quantitative approach. On the other hand, Yin (2003) argues that there is no clear demarcation between approaches that are used in research. Additionally, Creswell (2007) states that we conduct qualitative research because of a problem or issue that needs to be explored. Yin (2003)maintains that the most important condition for differentiating among various research strategies is to identify the research question being asked. Saunders et al. (2009) highlighted that a survey strategy aims at answering the "who, what, where, how much and how many questions". In the current study the major research question attempts to identify "what" the factors affectingmobile banking adoptionare, in Zimbabwe. Hence, the survey strategy was incorporated.

3.2.3 Multiple Methods

A multi-methods approach was undertaken in this research because data were collected using interviews and observations of the participants. The results were analysed qualitatively.

3.2.4Time Horizons

The time horizon for this study was cross sectional. According to Saunders et al. (2009) a cross sectional time horizon involves the study of a particular phenomenon at a particular time and these are usually short term periods. This academic dissertation is confined to sixmonths; therefore the current study is inherently cross sectional. A cross sectional time horizon is independent of research strategy chosen.

3.3 Research Philosophy

The research philosophy refers tothe way in which the world is perceived by the researcher (Saunders et al., 2009). This affects the choice of strategy and methods used in a study. In this study an interpretivist stance was chosen. Interpretivism has been defined as the epistemological position that advocates the necessity to understand differences between humans in their role as social actors(Saunders et al., 2009). Epistemology is concerned with the nature of knowledge and howit can be acquired(Saunders et al., 2009). A social researcher has to explore and understand the social world from the point of view of the participants' and their own perspectives(Saunders et al., 2009).

The aim of the study is to understand why people adopt or choose not to adopt mobile banking in Zimbabwe.With this view, the interpretivism philosophy was adopted in an attempt to explain behaviour towards adoption of the complex phenomena of mobile banking.

3.4 Sampling

Regardless of the research being conducted there is need to collect data to answer the research questions and research objectives of the study (Saunders et al., 2009). According to Wegner (1999) sampling is defined as the method which involves

selecting a representative subsection of the observations from a population to establish the characteristics of the variables under scrutiny.According to Ritchie & Lewis (2003)purposive sampling technique is where members of a sample are chosen with a 'purpose' relating to some key criterion. In this study the key criterion for the purposive sampling was that the respondents had adopted mobile banking services.

3.4.1 Unit of Analysis

A sample unit is a single element or a group of elements subject to selection in the sample(Saunders et al., 2009). Theimpetus of the research is to investigate the factors affecting mobile banking adoption in Zimbabwe therefore theunit of analysis in this study is auser of mobile banking in Zimbabwe.

3.4.2 Sample

There is a lot of debate concerning what constitutes the correct sample size in terms of interviews for a qualitative study. Adler & Adler (1987) suggest a minimum of 12 interviews. However, in this study a sample of 15 interviews were conducted as guided by the University standards.Through the purposive sampling technique, 15 respondents were selected based on the unit of enquiry stated above. Therefore, the sample constituted only of users who had adopted mobile banking services in Zimbabwe.The sample comprised of thirteen men and two women. The ages varied between 25 years of age and 45 years of age. All the respondents were employed full time.

3.5 Data collection process

A total of fifteen interviews were conducted to collect data for this research. Fourteen were face to face one-on-one semi structured interviews and one interview was conducted over the telephone. The face to face interviews were conducted in a quiet office in the Harare central business district (CBD). This enabled a neutral environment for the interview and made possible a close and reliable connection with the interviewees. Before the interviews commenced, the respondents were again re-assured of anonymity of their identity and they were again advisedthey would only be

recognised as codes to hide their names.Respondents were asked what factors they considered before they decided to adopt mobile banking. Further probing was done to test the validity of the constructs in the research model.

The interview continued until the respondents could no longer provide any more information with regards to the subject of inquiry. The interviews were recorded with the help of mobile phone application software called Recordium® and the telephone conversation was recorded using a different mobile phone application called Automatic Call Recorder®.

All interviews were carried over a period of 30 days.The recorded conversations were transcribed onto Microsoft® Office Word for the purposes of data coding and analysis. Most of the questions asked were open-ended in nature.

3.5.1 Research Instrument

A semi structured interview schedule was used as the main instrument for data collection in this study. This is because of the need to obtain large amounts of qualitative data from respondents and also take advantage of benefits inherent to face to face interviews such as nonverbal responses, gestures, intonation, body language among others that the researcher used to interpret meaning from respondents(Patton, 2002)
.

3.6 Data Analysis

According to Creswell (2007) data analysis in qualitative research consists of preparing and organising the data for analysis. Additionally, it entails reducing the data into themes through a process of coding and condensing the codes and lastly the data is represented in figures, tables, or a discussion(Creswell, 2007).Thematic coding was employed in the data analysis process, the themes evolved from the constructs that were discovered during the interviews as the main factors influencing adoption.The data were prescribed onto Microsoft®Office Word software, and some of the data were grouped according to the themes identified, for example, actual text phrases about all the users who considered security to be a concern and the exact words they actually said.These are presented in tabular format and each respondent

is identified by pseudonym or alias to allow for anonymity, for instance, Respondent 1.Data in the tables consists of the findings from the respondents pertaining to the study and are shown in Chapter Four.

3.7 Limitations

A few challenges were faced that limited this study; firstly, the time to carry out this study was short. The sample chosen for the study did not consider demographic factors such as age, gender or culture. The characteristic of the factors affecting mobile banking can be explored with this diversity and impact explored.

3.8 Reliability and Validity

Reliability can be defined as the degree to which measurements are free from error and therefore yield consistent results (Baraghani, 2008). It is generally concerned with the replicability of research findings (Ritchie & Lewis, 2003) which refers to the extent to which your data collection techniques or analysis procedures will yield consistent findings. Easterby-Smith et al. (2012)posited that reliability can be assessed through asking three questions.

- Are the same results produced if the same measures are used?
- Can the same observations be concluded by others?
- Is there transparency in how sense was made from the raw data?

Ritchie & Lewis (2003) defined validity of research as the precision or correctness of the research finding.Validity consists of two different dimensions which are internal and external validity. Internal validity ensures that the researcher investigates what he claims to be investigating, while external validity is concerned with the extent to which the research findings can be generalised to wider population(Saunders et al. 2009).

A lot of debate existson whether the concepts of validity and reliability apply to qualitative research. Marshall & Rossman (1999)argued that the absolute replication of qualitative studies is very difficult to achieve because qualitative data reflect on

realities at the time they were collected and in a situation that is likely to change. This demand is often referred to as unrealistic.

In this study reliability was insured through engaging a pilot study before the actual interviews, three one-on-one interviews were conducted to test the validity of the instrument to ensure that the interview guide was understood the same by respondents. According to Saunders et al. (2009) the validity of the instrument fortifies reliability of the methodology used, additionally respondents were assured on anonymity in the study to increase reliability (Saunders et al., 2009).

3.9Ethical considerations

To maximise the protection of participants in research,Patton (2002)suggests using the guiding ethical principles of informed consent, confidentiality, ensuring no conflict of interest and avoiding deception.

Prior to the interviews each respondent was given a printed copy of the interview guide for their perusal. This was done to allow participants' to appreciate the interview process and the questions guiding the interview. The researcher also explained every detail about the interview guide schedule. It was explicitly stated that the interview was voluntary and the respondent could leave at any time during the interview if they felt uncomfortable. The interviewees were informed that they would be tape recorded during the interview and that the interview will be kept in strict confidence and used only for this academic endeavour.

Because of the vast number of individuals with mobile banking accounts, the researcher(interviewer) could easily interview a colleague who had a mobile banking product they used which could introduce bias. To avoid this, the researcher purposefully selected distant individuals to avoid interview bias and increase reliability of the instrument.

Participants were informed of all information relating to the research work. This included the reason for the research, where it was to be conducted and over what time frame, what was involved, and whom it would benefit. All participants were

assured of anonymity through the use of a coding scheme developed by the researcher to ensure participant confidentiality.Pseudonyms were however used to maintain participants' confidentiality.

3.10Summary

This chapter outlined the dissertation's theoretical and practical approach. Each decision pertaining to selection of an approach or method was rationalized. In carrying out this research an exploratory qualitative research was conducted with aninductive approach. A survey strategy was adopted to collect data and the rational for choosing the strategy was explained. The researcher views the study as an interpretivist. In addition, the methodology was described and data collection process was explained. Lastly the constructs of validity and reliability were discussed. The next chapter begins the detailed data analysis and interpretation.

Chapter Four
Data Presentation, Analysis and Discussion

4.1 Introduction

This chapter constitutes the data presentation and analysis of the study. It entails analysis and discussion of the findings of the study on the factors affecting mobile banking adoption in Zimbabwe. The influence of all constructs of the proposed framework is analysed. This chapter begins with a brief overview of the respondents in the study such as age, gender and employment status. It continues with data framing and analysis followed by a discussion of the main findings and lastly the chapter conclusion.

The data collected in Chapter Three are presented in Table 4.1 for ease of presentation and interpretation. This is followed by an in-depth qualitative analysis of the data and a discussion of the main constructs of the research model that were shown to be the factors that affect mobile banking adoption in Zimbabwe. The results were compared to similar studies in literature and inferences were made.

4.2 Overview of the Respondents

The respondents were chosen on the basis that they were users of mobile banking products in Zimbabwe and these constituted the unit of analysis.The respondents were chosen on random basis to avoid bias. A total of fifteen individuals were selected for the study. There were two female respondents and the remaining thirteen were male. The age varied among the respondents the youngest was 25 years old and the oldest was 45 years. All the respondents were employed full time and working in Harare, Zimbabwe.

4.3 Data Framing and Analysis

Data collected from twelve interviews are presented in Table 4.1. Data in the table are selected excerpts of text from the transcribed interviews with the respondents. The data were coded based on the main themes that were identified during the data collection process, these themes were the factors affecting mobile banking

adoptionin Zimbabwe. The data was presented in 15 different sections, one for each respondent, and the details in each section refers only to what the respondent evinced to be the underlying factors in their individual circumstances.The names of respondents are not shown in the table for anonymity.

Only the factors that were identified by each respondent are tabulated. The responses in the table were obtained through questions from the semi-structured interview schedule in Appendix 1. The schedule entails a range of questions that ask the interviewees about the factors that they considered before they joined mobile banking. The data is summarised and presented in Table 4.1.

Table 4.1 Results

RESPONDENTS	FACTORS AFFECTING ADOPTION AND REASONS	
	Codes	**Response**
Respondent no. 1	**Market Awareness (MA)**	*After media communication from the radio and advertisements. I decided to use mobile banking*
	Performance Expectancy (PE)	*Convenience – sending receiving money*
	Security (ST)	*Security was a concern*
	Cost (CT)	*I asked about the cost if too high, I was not going to join*
Respondent no. 2	**Market Awareness**	*Heard about mobile banking at work*
	Performance Expectancy	*Convenience - send receive cash anytime transact anytime*
	Social Influence (SI)	*Yes to send to those in remote areas (unbanked)*
	Security	*yes I considered security*
	Cost	*Not really a serious de-motivating factor it was negligible*
	Facilitating Conditions (FC)	*Infrastructure – yes I did look at that before I used the product*
Respondent no. 3	**Convenience**	*I can send and receive money to relatives in remote areas, I can pay my Zesa*
	Security	*Of course I did,the Product uses a 128K Simcard that makes everything safer – so my mind was at ease.*
	Awareness	*No, I already knew the concept from Kenya, was actually waiting for the product.*
	Facilitating	*Infrastructure – It never really crossed my mind.*

	Conditions	
	Cost	*Yes, I made an effort to find out costs of transacting*
	Continuity	*I was already a subscriber, I just wanted continuity*
Respondent no. 4	**Security**	*The main reason I use it is because it has an applet imbedded within the SIM so it is more secure*
	Social Influence	*I got simcard from a friend, so in a way I was influenced by friend to use simcard – but my own initiatives*
	Enjoyment	*I made some investigations how it works*
	Cost	*Initially I experimented - not really concerned with cost*
Respondent no. 5	**Market Awareness**	*This 'Product' was more widely received, I was not aware of the other providers.*
	Performance Expectancy	*Convenience - The convenience of receiving money. Much more convenient than a bank – much quicker*
	Social Influence	*I was actually Influenced by my mother*
	Effort Expectancy	*Yes, I did consider but I had a line already*
	Facilitating Conditions	*Yes, it is one of the major reasons, because the Product is wide spread than the others. Coverage widespread availability could easily access ur cash everyone*
	Hedonic	*Was wondering when we will be able to also do M-PESA*
Respondent no. 6	**Market Awareness**	*My own decision based on adverts* *Reputation factor – not as such, at that time I didn't have any other alternative to go to. (over shadowed by media)*
	Convenience	*Convenience, to send receive to my relatives without bank accounts*
	Social Influence	*My friends were sending too so I also adopted*
	Security	*Security & privacy – I did look at (not really major)*
	Continuity	*I already had a line from Provider, and they had agents widespread*
Respondent no. 7	**Performance Expectancy**	*Convenience – Anytime anywhere I can transact- I use it for airtime top-up*
	Social influence	*Yes , for sending cash I needed means to send money*
	Security	*Yes it is, I put money as per the time I need to use the money (trust)*
	Registration Process	*Registration process was simple*
	Social Influence	*I normally used references, a tried and tested product. I considered how many people in my contact list are using eco-cash*

Respondent no. 8	**Facilitating Conditions**	*Yes, I looked into it, because what if something happened like system crash. Do they have proper infrastructure to support some data recovery.*
	Costs	*Yes, I was aware of costs, compared them to traditional banking, it was cheaper at first, it was cheaper to send smaller amounts*
	Performance Expectancy (PE)	*I can send cash to relatives remote areas*
	Security	*I considered security.Can someone take money from my account*
	Effort Expectancy	*Usability factor I considered the simplicity avoid contacting support*
	Curiosity	*Enthusiasim – What is this product? I should know how it worksso that when its talked about*
Respondent no. 9	**Convenience**	*Convenience - in the form of Distance (distance a moderator), cab send to different providers*
	Costs	*I did not survey on the cost but discovered it was negligible*
	Social Influence	*I will influence many other people, Social influence – No, my own decision I actually influence others*
	Facilitating Conditions	*FC – yes I can say that , network coverage convenient enough, although additional agents are required*
	Reputation	*Reputation – yes cause at first I doubted the Provider*
	Compatibility	*It supports any handset*
Respondent no. 10	**Convenience**	*I realized it was very convenient*
	Effort Expectancy	*Simplicity of App – I did consider it*
	Security	*Security – yes ofcourse, where there is money involved. I actually did some research on secure it is.*
	Cost	*Cost – I did considered, compared the banks and competing products*
	Social Influence	*Social influence – No! I am now advertising to others*
	Loyalty	*I was already a customer of Provider*
Respondent no. 11	**Simplicity**	*No Simplicity was not*
	Social Influence	*Yes, work colleagues some of the guys who were using the product had said some convenient things about it. So I decided to adopt to see if it applies to me as well*
	Security	*I wasn't concerned much about security. The Zimbabwean environment has never had any security breaches that have been reported.*
	Cost	*Cost was an issue, if it was going to be high I wasn't*

		prepared to pay more for the service.
	Hedonic Motivation	*Coming from an IT background it was just to experience and see how the product works. It was more of an experiment*
Respondent no. 12	**Convenience**	*Because I don't in the banking hall I can now use smart money to top up my airtime and pay Zesa anytime anywhere.*
	Security	*Yes, If you are dealing with cash.*
	Simplicity	*If I thought it was going to be difficult, I would have ventured into it. It's something you get used to*
	Costs	*It's actually cheaper than traditional methods*
	Moving with time	*Just moving with the times, grasping technology. Let me try this product and see how it works.*
Respondent no. 13	**Social Influence**	*So when we adopted it is mainly because we had heard good things good things, that it was a good product.*
	Convenience	*It was easier for people to send the payments through the product. We were able now when the product came we able to get.*
	Security	*Yes, We didn't want to lose our money.*
	Facilitating Conditions	Agent distribution -*Availability of where to cash in and cash out. That's why we use less of Product X than Product Y because Y has less agents.*
	Simplicity	*It was a concern because the line I share with my wife so if she finds it complicated, she won't use it*
	Cost	*I wasn't really aware of cost, the word around from those who were using it was that, it was cheap!*
	Trend	*I think it was the in thing at the moment, the trend, it makes either keeping your money*
Respondent no. 14	**Convenience**	*I can pay my Zesa payments*
	Cost	*No, Mobile banking compared to traditional banking. It's a lot cheaper.*
	Security	*Yes it was, Yes I did It uses SMS, the authentication on SMS is based on SMS authentication there is security there.*
	Social Influence	*To a certain extent yes, considering that I have relatives in the rural areas.*
	Simplicity	*Not at all difficult, as long as someone can read English*
Respondent no. 15	**Market Awareness**	*Yes because when advertising they try to spice things, that automatically lured me. I'm an adventurous man.*
	Convenience	*It's flexible not rigid like the traditional banking. You can pay your school fees using mobile banking.*

	Costs	*Initially the cost, they were on a high note,especially when we started to hear about mobile banking.*
	Hedonic Motivation	*I am an electronic engineer,that alone, naturally I'm interested to see how those these things work. I wouldn't want to hear from people who are technically innocent*
	Facilitating conditions	*I considered that , I see Product in partnership with other providers.*
	Security	*I made investigations because I don't want to jump into things I don't know about security*
	Loyalty	*I have a bond with Product, whatever product they launch.I am tempted to jump in there.*
		The number of people I talk to are already on 'Product' Network.

All the key constructs of the research model were collectively identified to play a part in adoption of mobile banking. Additionally, other factors outside of the proposed framework were also discovered and included in Table 4.1, for example, continuity and loyalty. Continuity was highlighted by the respondents who found it easier to adopt the mobile banking services because they were already a client of that provider. Loyalty was observed among the respondents who had developed a preference for a certain provider which the researcher themed Loyalty. The results are discussed below. Table 4.2 presents a quick overview that shows what respondents considered influential in terms of their decision to adopt mobile banking.

Table 4.2 also shows the total number of respondents under each construct or variable who actually considered that particular factor. This allows for quick analytical generalisations to be made in the discussion. The influencing factors are abbreviated below to improve presentation of data.

Convenience/Performance expectancy (PE), Effort Expectancy [Simplicity] (EE), Market Awareness (MA), Security (ST), Cost (CT), Facilitating Conditions (FC), Social Influence (SI), Trust (TR), Loyalty (LY), Registration Process (RP) and Hedonic Motivation [Perceived Enjoyment] (HM).

Table 4.2 Factors Influencing Respondents

	PE	EE	MA	ST	CT	FC	SI	TR	LY	RP	HM
R1	✓		✓	✓	✓						
R2	✓		✓	✓		✓	✓				
R3	✓			✓	✓				✓		
R4	✓			✓					✓		
R5			✓			✓	✓				✓
R6	✓		✓				✓		✓		
R7	✓		✓	✓			✓			✓	
R8		✓		✓	✓	✓	✓				✓
R9	✓					✓		✓	✓		
R10	✓	✓		✓	✓						
R11					✓						✓
R12	✓			✓							✓
R13	✓	✓		✓	✓	✓	✓				✓
R14	✓			✓			✓				
R15	✓		✓	✓					✓		✓
TOT	12	3	6	11	6	5	8	1	5	1	6

Table 4.2 shows that of the 15 respondents interviewed PE (n=12), ST (n=11) and SI (n=8) were observed to be the most prevalent factors considered influencing adoption of mobile banking services.All findings are discussed next.

4.4 Discussion of Key Findings

This study proposed a research frameworkto explain the factors affecting mobile banking in Zimbabwe through extending the UTAUT2 model based on empirical evidence found in the literature(Yu, 2009; Tobbin, 2012; Laukkanen, 2007; Adesinasi, 2012; Chitungo & Munongo, 2013; Thakur, 2013; Kabir, 2013). The dynamics surrounding consumer adoption of mobile banking in Zimbabweare analysed using the propositions identified in the research framework.

The findings as a whole showed that several factors were influential to the respondentsin deciding to adopt mobile banking. Each respondent had more than one factor that played a part and conversely not all factors contributed to the decision to adopt. The main constructs identified were mentioned to be actual factors that affected the respondent's decision to join mobile banking, which assisted in answering one of the major research questions. These were identified as convenience,marketing awareness (media), cost (price value), facilitating conditions, securityand social influence.

To avoid bias in the discussion, ethical considerations were made with regards to divulging information pertaining to actual names of mobile banking products and their providers that could have defamatory effects to organisations involved if taken in the wrong context. To this end, in this study, names of products such as Eco-cashor OneWallet will be referred to in the direct quotes as the Product, and names of organisations such as Econet or Netone or Telecel will be referred to as Providers.This coding does not affect the translation or meaning of the data collected in any way, it only conceals names of brands and the firms which does not affect the study.

4.4.1Convenience

In this study convenience was under the performance expectancy construct as the factor was presented in many different connotations by respondents. Conveniencewas the most common factor among the respondents andwas explicitly stated by them. The results showed that convenience was interpreted differently by each respondent. It was a multi-faceted phenomenon which had different meanings

attached to it by the respondents. In some instances it was linked to speed and efficiency when respondent two and three said.

> *I think it's the ability to for you to be able check your account balance to be able to transfer funds at the click of a button at your convenience* (Respondent no. 2).

> *It was much more convenient than a bank because a bank you would have to have certain clearances, and they are much slower when it comes to processing the money*(Respondent no.5).

While another said:

> *We run chicken business we used to drive to collect payments, when the Product came along it was easier for people to send the payments through the product.* (Respondent no. 13)

In other instances the ability to send and receive cash anytime and anywhere was perceived to provide immense utility.It seemed convenience was related to the fact that the respondents needed to send money to relatives in remote areas where banks might be inaccessible.

> *Well for starters I can send some money to my relatives in the rural areas. I do not need to visit any bank and lately which is a very good innovation; I can buy my prepaid ZESA from home (Respondent No. 3).*

In another instance it was linked to the growing number of users that meant a wider customer base for transacting.

> *But also the convenience that it offers because a lot more people are moving to mobile banking so it's much easier for a person to transfer money to your account than with a bank account* (Respondent no. 5).

Respondent no. 2 said:

> *I think it is mainly the convenience part of it that actually drove me to use Mobile Banking* (Respondent No.2)

Convenience was found to revolve around the ubiquitous nature of mobile banking that allows one to transact anytime and anywhere. Convenience is therefore synonymous with perceived usefulness or utility perceived by the consumer. The results show that convenience has a strong influence on consumer's intention to adopt mobile banking in Zimbabwe. Therefore the proposition that PU/Utility has a significant and positive effect on consumers' intention to use and adopt is accepted. These findings are consistent with the results identified in the literature on other empirical studies such as Laukkanen (2007), Adesinasi (2012), Tobbin (2012), Masinge (2010) and Chitungo & Munongo (2013).

4.4.2 Marketing Awareness

The results showed that market awareness has great influence on consumer intention to adopt and use mobile banking services and thus support proposition 8 that was made in this view.One respondent said:

> *It's just something I heard from their marketing, they said you can send receive cash to anyone, any part of Zimbabwe. So I just thought it a good thing, I would want to send money to my brother who is in the rural areas* (Respondent no. 1).

Another respondent said

> *Actually the major reason I considered is because this Product was much more widely received I didn't know about the other Products.It was a matter of the product that came to me first* (Respondent no. 5).

Consumer's awareness in itself had significant influence on usage behaviour.

It is clear that marketing awareness played a part to influence usage behaviour, because the product that was finally adopted was as a result of market awareness that reached the respondent first. More evidence supports this line of thought when another respondent said

> *Well, in a way it did motivate, I already needed the convenience of mobile money service*(Respondent no. 3).

The results showed that market awareness has asignificant influence on intention to adopt mobile banking which is also consistent with the study conducted by Adesinasi (2012).There is a strong link between intentions and usage behaviour. The original construct of the UTAUT remain valid in that intention and actual usage are differentiated. Therefore the proposition that market awareness has positive effect on consumer's intention to adopt and use mobile banking services is accepted.

4.4.3 Cost

The findings show that cost is a major factor that influenced adoption of mobile banking in Zimbabwe. Three respondents said cost did not deter them from using mobile banking service but this was because the actual costs were consequently negligible. The respondents said:

> *I did know about the costs, but it wasn't really an issue of cost that drove me to use the product…it was not a demotivating factor because really the costs are sometimes negligible, sometimes it's like 1% of the amount*(Respondent no. 2).

> *Yes, Cost did cross my mind before I joined the mobile money service my wife was already using one Product and she really complained about the charges and the likes, so when this Product came, I remember someone saying their charges are very cheap….and I did make an effort to just find out the percentages involved, 1.5% I think that's quite reasonable*(Respondent no. 3).

The rest of the respondents acknowledged that cost was indeed a major factor that they considered before deciding to use mobile banking. Another respondent said:

Well, before I applied for the Product, I considered the cost, that's the first thing a logical human being would do(Respondent no. 8).

This finding indicates the impact cost has in deciding whether to adopt or not for some users. Equally another respondent said:

It was something that I considered, ok, I looked at banks, what the banks are charging, what the competitors are charging(Respondent no. 10).

Another respondent said

I asked about the costs, how much for this transaction because it was much of an issue…If these guys had very high costs, I would just join but not do transaction(Respondent no.1).

Cost was an issue; if it was going to be high I wasn't prepared to pay more for the service(Respondent no. 11).

While respondent no. 13 said:

I wasn't really aware of transaction cost per say, the word around those who were using it was that it was cheap. I didn't make an effort to really find out how cheap it was or how much was the transaction fees (Respondent no. 13).

This finding shows that if the costs are too high the respondents were not going to adopt mobile banking.This indicates that cost has a significant and negative influence on adoption if the costs are perceived to be high. This supports the proposition made above. A study by Chitungo & Munongo (2013)in the literature also presented similar findings with the same correlation with perceived cost.Additionally, the literature also shows several studies with similar results from Kabir (2013), Masinge (2010) and Adesinasi (2012). Most of the respondents (n=11) identified cost as a major factor. Thus proposition number 5 is accepted.

4.4.4 Security

Results presented mixed feelings concerning security as a major factor of adoption. Nevertheless,eleven respondents indicated security as a major concern. The results support proposition P6 that security is a major concern before they used mobile banking. These results correlate with those obtained from studies by (Masinge 2010; Chitungo & Munongo 2013; Kabir 2013; Adesinasi 2012; Koenig-Lewis et al. 2010) identified in the literature who also highlighted security as a major factor.

> *Yes, because when it comes to money you need something that's very secure especially if you are transferring a lot of money, maybe on a daily basis or on a weekly basis, so you always have to put that into consideration, so I did a bit of research it's very secure*(Respondent no. 10).

One respondent said

> *Yes, it was an issue and it's still an issue, and hence I normally don't put much money into my mobile banking accounts, I make sure I put the amount of money I want to use at that moment in time*(Respondent no. 7).

Security is shown to be a direct antecedent of trust.Another said:

Yes I considered that because I was thinking for example if I send money over the phone wouldn't these guys steal my money! Issues of hacking… so initially I was sending money, I wasn't sending large small sums of money...I was just sending small amounts of money…but later on I discovered almost everyone is using it(Respondent no. 1).

The results also show that some respondents because of security concerns do not trust mobile banking services to such an extent they transact with only small amounts of money they are prepared to lose, should any security breaches occur. Security has shown to be a direct antecedent of Risk and Trust. The trust and risk constructs was not adopted in the research model.Security concerns were shown to be material when the amounts being transacted were also material.

In another instance one respondent said:

I've noticed with most people, including me at that time, never even considered security and privacy I just wanted the product(Respondent no. 5).

Whilst another said,

I wasn't concerned much about security…This environment, the Zimbabwean environment has never had any security breaches that have been reported. So security in terms of mobile money It wasn't any issue, It's something that never came up (Respondent no. 11).

Results also show that users are uncertain of the extent to which their transactions are secure. This can therefore explain why they only deposit when they want to use the service or deposit small amounts of money in a bid to reduce risk.The results support that security influences a consumer's intention to adopt and use mobile banking, if there is perceived less security customers might not use the product. Therefore proposition 6 is accepted.

4.4.5 Social Influence (SI)

Social Influence was found to have a significant effect on consumers' intention to adopt and use mobile banking services. Therefore propositionP7, that posits that social influence contributesto consumer's intention to adopt and use mobile banking services is also accepted. One respondent explicitly said:

I was actually influenced by my mother, because she wanted me to get an account where she could put money, transfer money from her account into my account without having to go through all the hustles, it was much easier for her (Respondent no. 5).

Another also stated that:

Yes, work colleagues some of the guys who were using the product had said some convenient things about it. So I decided to adopt to see if it applies to me as well (Respondent no. 11).

This indicates that users can adopt technology on the simple basis of social influence from other people who have used the product. And another respondent said:

> *For me I've used the product based on what others have said…Well a tried and tested thing is normally better to work with than to take the risk* (Respondent no. 8).

This findings show that users of mobile banking take into consideration what other people say about the product and this affects their decision to adopt. Conversely, two of the respondents stated that they were not influenced by anyone to join the service but they now actually influence others to use mobile banking.The first respondent said:

> *I don't think anyone influenced me to use the Product, It was my own decision. I can actually say I influenced others to use the product* (Respondent no. 9).

And the other respondent said:

> *No, I'm the one that's now advertising the benefits* (Respondent no. 10).

The findings show that despite them stating that there was no social influence by anyone to use mobile banking products they informed that they actually influenced others to join mobile banking. Their actions constitute social influence nevertheless. This stills leads to social influence as the underlying factor. The study did not show why the respondentsare motivated to market the product they use to others.Some were influenced by social pressures indirectly and the need to send money which led them to be advised of mobile banking products that they could use.

> *Yes, they have, mostly for sending cash, they have influenced me, because somebody says I need cash I need cash. I don't have a means to send you cash, and then they said why don't you use these kind of service"* (Respondent no. 7)

In another instance Respondent 13 iterated how social influence played a part in influencing adoption when he said:

It was after some time other people had been using it, from what we had been hearing it seemed like it was a good product, so when we adopted it is mainly because we had heard good things, that it was a good product (Respondent no. 13).

This finding shows that consumers can be influenced by people they know after finding out the benefits they could derive from using the service. This research is consistent with the findings of Adesinasi (2012), that, social influence has a significant effect on consumer adoption of mobile banking. Most of the respondents (n=8) were influenced by others to adopt mobile banking. The results therefore support proposition that states thatsocial influence plays a very influential role on consumer's intention to adopt and use mobile banking services.

4.4.6Hedonic Motivation/ Perceived Enjoyment (HM)

Hedonic motivation which is described as perceived enjoyment by Venkatesh et al. (2012) was inferred from one of the respondents who said:

I wouldn't say they played a big part, I already knew about the concept from Kenya, the famous M-PESA so it was really just a matter of waiting for our players to adopt the technology and to jump straight to it (Respondent no. 5).

Others said:

Coming from an IT background it was just to experience and see how the product works. It was more of an experiment(Respondent no. 11).
I am an electronic engineer, that alone, naturally I'm interested to see how those these things work. I wouldn't want to hear from people who are technically innocent(Respondent no. 15).

The respondent was already aware ofmobile banking and was anxiously waiting for the product to arrive in Zimbabwe. This finding also indicates the influence of market awareness, supporting the researchers analogy mentioned earlier, that sometimes factors alluded are multifaceted. The curiosity in this case the researcher linked to Hedonic motivation based on the enthusiasm of the respondents answer. Only in this case was Hedonic motivation observed, this could be because of the nature of the technology in question (mobile banking) where enjoyment is not necessarily what users are concerned with.Ultimately hedonic motivation has shown to have some predictive effect on user intention to adopt mobile banking.

4.4.7 Effort Expectancy (EE)

Effort expectancy was observed in only 3 instances. EE wasunexpectedly not a major determinant that was considered by the respondents (n=3).The results show that it was not considered probably becausethe respondents in question had astrong technical background.One respondent stated:

> *It was not a factor, because I am quite a techno savvy person. So, I don't believe there can be any rocket science on this phone*(Respondent no. 5).

The respondent was not concerned because he believed there could never be anything too complicated on the mobile phone.Another respondent said:

> *No, I didn't consider it. It was not much of a concern. I didn't think it would be difficult for me to use it* (Respondent no. 1).

Others also said:

> *No I didn't consider simplicity. It was more of an experiment to see how the product actually works and then evaluate for myself and to inform others* (Respondent no. 11).

It was a concern because the line I share with my wife so if she finds it complicated, she won't use it, so that was one of the first reasons(Respondent no. 13).

Although effort expectancy never crossed their mind it can be inferred that on a subconscious level, that, ifthe respondents could not conceive that using mobile banking could not be any difficult, it would naturally not be a deterrent factor and hence adopt. This would still imply that the findings will concur with results byAdesinasi (2012) in Nigeria found that when an innovation is easy to use consumers will adopt it. Nevertheless, the results showinconsistency or contradiction with findings by Masinge (2010) in South Africa and even findings by Chitungo & Munongo (2013) in rural Zimbabwe. This contradiction could be explained by the background of the respondents. Therefore the proposition P4is refuted.

4.4.8Facilitating Conditions (FC)

The results reveal that facilitating conditions to be a salient factor in adoption. The respondents believed that if the organisation was offering mobile banking service they would obviously have the supporting conditions in terms of infrastructure and expertise to support the product. One respondent was concerned about infrastructure in terms of network coverage when the respondent said:

Yes, I also had to consider the area, network coverage for someone I need to send money to(Respondent no. 6).

Another respondent was worried that the provider now hasa lot of things to do now, andsaid:

Initially I was thinking about two things, anything goes bad in their network will they be able torestore service (Respondentno. 1).

Another respondent said:

That's actually one of the major reasons why I used the Product, their merchants were much more widespread and you could easily access your cash anywhere you are (Respondent no. 5).

For mobile banking facilitating conditions is a major factor as users expect to be able to receive their cash at their nearest location. The results show that customers of mobile banking consider whether or not a Provider has the capabilities to support a Product. A mobile banking Provider must have widespread coverage in terms of agents or merchants. Another said

I considered who was providing the service in terms of their history in terms of how they supportedthe product and were else they have used the product. The vendor of the system, not the Provider itself (Respondent no. 11).

Availability of where to cash in and cash out. That's why we use less of Provider 1 than Provider 2 because Product 1 has less agents(Respondent no. 13).

The results are consistent with Venkatesh et al., (2003) affirmations that Facilitating Conditions, where present, influencea consumer's decision to adopt technology. This is therefore in agreement with propositionP1, thus it is accepted.

4.5 Factors not on the Model

The discussion continues with findings observed that were outside the scope of the proposed framework of the study. These results were obtained after respondents were asked if they had any other factors that they considered that were outside the constructs identified in the model. Other interesting findings were highlighted and they were coded as the researcher deemed them important and relevant to the study.

4.5.1 Habit

The results showed another factor which the researcher considered and was originally under the habit construct of the original UTAUT2 model. The habit

construct was not included on the research model. In one instance habit inferred from the respondent. Because habit is concerned with automatic behaviour or past experiences, the following account indicated that habit could have had underlying motivations when one respondent said:

As I said earlier on having been a customer of "Provider 1", my instincts were just to go with Product" (Respondent no. 3).

4.5.2 Loyalty

The results also show that the respondents were also influenced to use mobile banking because they were already an existing customer of that provider which presented a simple option to adopt mobile banking services. The researcher linked this finding to loyalty.One respondent said:

I have a bond with Provider 1, whatever product they launch, I am tempted to jump in there (Respondent no. 15)

I thought since I was already a customer of "Provider 1",Ijust wanted continuity (Respondentno. 3).

This means that existing customers of mobile network operators are already a step closer to adoption because of the affiliation that they already have with the organisation. These findings might help explain the discrepancy in uptake between mobile network operators identified in literature. This means the provider with more subscribers will naturally also experience the same positive correlation with mobile banking uptake.This can be supported with another remark from respondent no. 1:

I thought because I already have a line (Mobile phone user). I think it will be an advantage; they might give me a discount somewhere when I'm making my calls, let me open this account (Respondent no. 1).

In the second instance the respondent's loyalty is loosely tied to perceived rewards as a result of being a customer. Nevertheless, the researcher closely relatesthe findings to loyalty because the subscribers could have easily joined a different

operator. The usersready to adopt could consider their current operator first. Hence,it was easier for the respondent to adopt mobile banking with the current provider as He was already an existing customer. This relationship is more pronounced for MNO because using mobile banking requires you to be a customer first and register as a phone user. Since this process is already taken care of, adoption becomes easier as compared to joining another provider network.

4.5.3 Registration Process

The findings have shown that the registration process can have a negative effect on consumer's intention to adopt and use mobile banking services if the process was difficult or too long. The results support this analogy when one respondent said:

> *I think if the registration process if it was difficult for me Iwas simply not going to bother myself*(Respondent no. 7).

The researcher did not link this with perceived ease of use which is associated with the actual use of the system (mobile banking) because registration is prior to system use. Results show that the registration process for mobile banking if perceived to be difficult could have a negative effect on adoption.

4.6 Research Model

The research model proposed in the study presented 8 constructs adopted from the UTAUT model and findings from similar past research, namely Perceived Use/Utility, Security, Facilitating conditions, Social Influence, Hedonic motivation, Market awareness, Effort Expectancy and Cost. All constructs supported the propositions that were made all except one which is perceived ease of use.

This relates to seven of the eight propositions made are accepted. Consistent with previous studies, perceived usefulness and Market Awareness, Social Influence, Cost, Facilitating Conditions, Effort Expectancy, Hedonic Motivation and Security were also found to be factors influencing the adoption of mobile banking in the Zimbabwean context. The predictive power of the model is relevant for the consumers' in Zimbabwe. However, it could not explain ease of use. The results

revealed that moderators such as experience in the original UTAUT2 model need to be included. Other constructs that need to be included are trust, loyalty, risk and Habit.

4.7 Summary

Thematic analysis and discussion were done and the results have shown that seven propositions on the proposed framework were influential in consumer's decision to use mobile banking in Zimbabwe.

Therefore seven propositions were accepted andone was refuted. The results also identified other influential factors which were outside the proposed research model constructs; these were identified as loyalty,habit and the registration process, these were also shown to be influential factors to mobile banking adoption.

The results alsoshowed new phenomena, for example, it showed that some of the respondents had adopted more than one mobile money product and were using both products. However, the study did not investigate why most of the respondents were using more than one mobile banking product, whilst when asked about the satisfaction with the service, all respondentsconcluded that they were satisfied with the service they use.

Respondents made reference to a particular Bill Payment identified as ZESA with more zeal than any other item associated with transacting on the system. This could imply that a mobile banking product must have key services or multiple vendors on their list of services.

Lastly the study findingsshowed that a combination factors influenced each respondent in their decision to adopt mobile banking services in Zimbabwe rather than a single factor.

Chapter Five
Recommendations and Conclusion

5.1 Introduction

This is the final chapter and conclusion of the study. This chapter answers the research questions and makes recommendations for managerial considerations. It will also present the main argument based on the findings. The chapter begins with concluding remarksof key interesting findings. It proceeds with recommendations for future research. Limitations of the study are also discussed and areas for future research suggested. Theoretical contributions are highlighted and lastlythe study is concluded.

5.2 Conclusions

The research findings have led to the following conclusions to be made.

- Convenience/Perceived Usefulness, Social Influence, Facilitating Conditions, Effort Expectancy, Market Awareness, Security and Hedonic motivation have a significant and positive effect on consumer's intention to adopt mobilebanking services.

- Lack of financial banking services by the majority users who are unbanked is a major contributory factor. M-commerce is therefore a cheap mode of offering financial services to these unbanked people using a platform that they already have in their hands, that is, a mobile handset.

- Cost has a negative effect on adoption if it is perceived to be high.

- Zimbabwe is somewhat highly informal, where money is mainly in the form of cash or possessed by individuals. Minimum transactions are then done using m-commerce to transfer to other recipients or occasionally pay their dues

- Perceivedease of use was not an influential factor in the adoption of mobile banking in Zimbabwe.

- In each case a combination of factors affect an individual's decision to adopt and use mobile banking, for instance, Respondent no. 1 was influenced by convenience, awareness, security concerns and cost.

5.3 Answer to the research questions

The major research question of the study was to investigate the main factors that affect mobile banking adoption in the Zimbabwe. The study has clearly identified

these factors which the research framework described. The literature identified one of the most recent models of technology adoption, which is the UTAUT2 model which was extended to try and devise a model or framework more appropriate for Zimbabwe.

5.4 Theoretical contribution

Seven of the model constructs were identified as valid factors that indeed affect adoption in Zimbabwe. However, the model would need to be subjected to a different sample with different demographics to better understand the phenomenon.

The results showed that some respondents considered adoption without using the product if the cost of transacting was too high. A clear cut distinction existed between behavioural intentions and actual use.

The results also showed that perceived ease of use construct did not have much predictive power in adoption of mobile banking in the Zimbabwe context because most users are only aware of the disquiets of use after theyhave already adopted. Whether they perceive it to be easy to use or not did not stop them from using.

The findings show that MNO's in Zimbabwe will most likely have more uptake of mobile banking simply because they already have a wider customer base, the results show that users are finding it more convenient to use their current mobile network providers for mobile banking services.

The results have warranted the modification of the research model proposed. The new model will add Loyalty construct to the proposed framework and remove ease of use (simplicity).

5.5 Recommendations

The recommendations of the study are classified into two categories, namely, policy recommendations and managerial recommendations. The following recommendations were made:

5.5.1 Policy recommendations

On the backdrop of benefits and impact of mobile banking identified in the study, the government must provide, through policy, a conducive economic and political environment that mobile banking service providers can operate in.

Thulani et al., (2011)highlightedthe lack of regulation in Zimbabwe affecting uptake of technology. Therefore the government must provide a regulatory framework to guide mobile banking operators, for example, cost of mobile banking transactions can be standardised and controlled.

5.5.2 ManagerialRecommendations

Service Providers must improve customer awareness through intensive advertising to improve uptake. They must inform consumers about the mobile banking product offering, the message must communicate clearly the possible benefits that accrue, the advantages and the disadvantages.

Service providers should also take advantage of their current consumer base as an advertising channel to increase awareness and consequently adoption.

Service providers should inform and teach consumer's concerning the security features of their products, to try and make users understand that their funds are in good hands and that the service is very secure. They must also diligently attempt to build trust so that uptake can increase if the consumer is re-assured of security and more transactions can be enjoyed therefore more revenue.

The registration process should be constantly reviewed to ensure that it is simple and quick to promote growth and reduce customer frustrations with registrations.

Since social influences are important, Providers must try and take advantage of social media to improve their product awareness and knowledge. Popular social media sites such as Facebook®, Twitter® and LinkedIn® can be utilised.

Pricing strategies must be considered carefully, Providers of mobile banking solutions must formulate a pricing strategy that will attract and retain customers. A penetration pricing (begin with a low cost) strategy can be used on the onset and later revised as the product becomes popular.

5.6 Limitations of the study

Some limitations in this study were noted. The first major limitation of the research is time. Time awarded for the research was limited to six months. More time would have assisted the researcher to investigate into the new constructs identified, nevertheless, it will be proposed for future research by others.

Another limitation in this study was the lack of exhaustive empirical research on the topic of mobile banking adoption, which was described as lacking in the literature.

In order to increase understanding of the factors affecting mobile banking adoption in Zimbabwe,a larger sample size could be consideredto provide a more generic view using different demographic variables to improve the quality of the findings.

Some users were noted attempting to recollect old memories pertaining to why they decided to join mobile banking. Therefore the study might need to be conductedwith newly registered users of mobile banking.

Perceptions of users are can change with time and are dependent on many things. Investigations spread over time can have a moderating impact on such variances, leading to more reliable data.

5.7Areas of future research

The research has done much to investigate the constructs found in other research there is need to investigate on new constructs that are found. Future research should consider a qualitative enquiry for a deeper understanding of the role played by media in adoption of mobile banking. A similar qualitative enquiry should be undertaken that considers demographic factors such as age, gender, race, culture, status, class etcetera to increase understanding of the phenomenon.

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Appendix 1
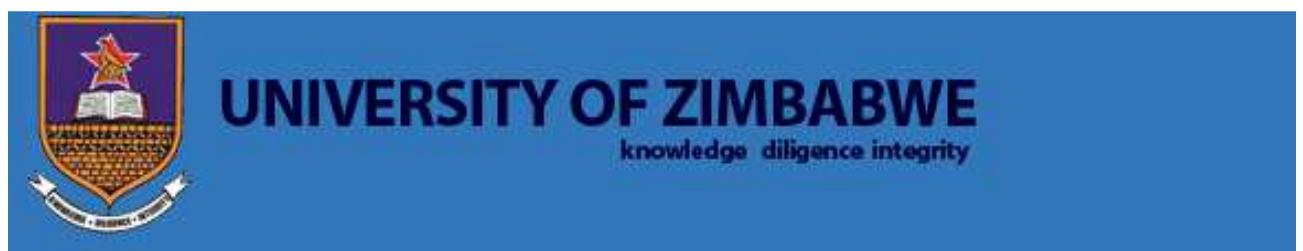
Interview Guide

My name is John Shingai Nyamasve. I am a student with the University of Zimbabwe (Graduate School of Management) pursuing a Master's Degree in Business Administration (MBA). I am carrying out a research on factors affecting the adoption of Mobile Banking in Zimbabwe. I am kindly request your voluntarily participation in this interview and assist in the data collection for this research.

This guide is meant to give a guideline of the questions to be asked during the interview which will be tape recorded with the consent of the respondent. The responses will be used only for academic purposes and will be treated in strict confidence.

Guidelines to participating in the interview:

- Answer all questions accurately and objectively
- There is no risk, anonymity will be maintained and all responses will be kept confidential and are strictly meant for this study only
- All results will be aggregated thus further maintaining anonymity of the participants
- Your opinions and comments are of great value as much as your voluntary participation is greatly appreciated
- All interviews are to be tape-recorded, at the concurrence of the participant, and the audio tape-recording sessions are to be erased at the end of the study

Background Information on Interviewee

Date:

Respondent Number:

Gender:

Age:

Occupation:

1. What mobile banking product do you use?

2. Where did you hear about mobile banking? How did your about mobile banking?

3. Has marketing awareness helped you to start using mobile banking service?

4. Did you consider the simplicity or the ease of using mobile banking services as a factor before applying for it?

5. Was you decision to adopt mobile banking influenced in any way by your friend(s), parent(s), family(ies) or colleague(s)? How was it influenced?

6. Did you consider security and privacy as an issue before applying to use mobile banking services? Did you make efforts to find out the level of security?

7. In your view were you motivated to use a particular mobile banking product because of previous good or bad experiences with other products of that service provider?

9. Has your previous use of electronic device (s) helped you to develop interest in using mobile banking facilities? Did your personal technical competency influence you to trust and adopt mobile banking services?

10. Were you aware of the costs of mobile banking solutions before your started using the service? If so, were you discouraged by the cost of mobile banking services before applying for the service?

11. Was your decision to adopt mobile banking services affected by the availability of surplus money? Did the availability of surplus funds make you more conscious of the cost of mobile banking services?

12. Did you have a bank account before applying for mobile banking services? If not, where you motivated to apply for mobile banking services because you did not have a banking account and why?

13. Before applying for mobile banking services, did you consider if your service provider has the capabilities and means in terms of infrastructure or technical competency to support the mobile banking product and why?

14. What would you say are the major benefits you have accrued from using mobile banking?

15. Before applying for mobile banking services did you consider if mobile banking services would meet your important transaction needs? If not does it meet your needs now?

16. What other reasons would you say, that have not yet been discussed that may have aided you to use mobile banking services and how?