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**The adoption of mobile banking and internet banking by Southerton
residents: Case study of FBC Bank**

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Abstract

Since the advent of computerized banking systems, especially in industrialized nations, economies have been moving toward a cashless society as physical currency (cash) and physical payment mechanisms are replaced with cards (plastic money) and the Internet (digital money). The study looks at how widely commercial banks and building societies in Zimbabwe are accepting and using online banking from people, micro, small, and medium-sized businesses (MSMEs), and corporations. It also looks at the obstacles they encounter in using this technology. The study concentrated on the application of the technology acceptance model to assess the usage and acceptance of internet and mobile banking. For primary data collection, the researchers conducted in-person interviews and employed a questionnaire. With a survey sample of 30 people, the model was evaluated. The study's conclusions suggest that the key elements on the adoption of internet and mobile banking adoption were many.

Declaration

I declare that this dissertation is my original work except where sources have been cited and acknowledged. The work has never been submitted, nor will it ever be submitted to another university for the award of a degree.

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Acknowledgment

First and foremost, I want to express my gratitude to God for providing me with the skills I need to succeed. Second, I want to extend my sincere gratitude to Mr. G.Mandewo , my research supervisor, for his patient direction, passionate support, and helpful critiques of my research work. I also want to thank my father Shame Magadu, my mother Viola Njerere, my sister Tapiwa Magadu, and all of my friends and family for their unflagging support, inspiration, and encouragement. I would not have been able to realize my lifelong dream without the daily sacrifices they made.

Dedication

This study is dedicated to my father Shame Magadu for all the sacrifices he made to get me here, as well as to my encouraging family and friends who helped me along the way as I undertook this research endeavor.

Definition of Key Terms

1. E-banking

is a catch-all phrase describing the method by which a customer can do banking operations electronically without going to a physical location. In one way or another, e-banking is referred to by the words PC banking, internet banking, mobile banking, virtual banking, online banking, home banking, remote e-banking, and phone banking. The most popular terms are PC banking, online banking, and mobile banking. However, it should be emphasized that terminology used to describe different forms of e-banking are frequently used interchangeably (Sathye, 2009).

2. Mobile banking

Mobile banking is the practice of carrying out banking and trading transactions utilizing a wireless internet-capable device, such as a cell phone, PDA, or handheld computer. M-banking, or mobile banking, is a subset of i-banking (Bhasin, 2007).

3. Mobile payment

is a service that allows users to send instructions from their mobile device to start making payments to other parties. The instructions can be sent to their bank, a business, or a payment service provider to tell them to pay a specific sum to a specific recipient on their behalf. Mobile payment will be available where a mobile banking relationship already exists. If a customer has electronic access to a value store, such as a bank account, and may submit payment instructions relating to the value store for execution, that does not

necessarily mean that a banking relationship is a part of the relationship (Aladwani, 2001).

4. E-commerce

E-commerce, commonly referred to as electronic commerce or internet commerce, is the term used to describe the exchange of money and data for the purpose of transacting business through the internet. The term "ecommerce" is frequently used to refer to the online sale of tangible goods, but it can also refer to any form of business deal made possible by the internet.

5. Financial Inclusion

Financial inclusion refers to the availability to both individuals and businesses of useful and cost-effective financial goods and services, including payments, transactions, savings, credit, and insurance, that are provided in a sustainable and ethical manner.

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Chapter 1 Introduction

Introduction

Regarding the significance of financial systems for economic growth, economists have differing views. Electronic business, e-commerce, and the developing global economy are becoming more and more important elements of corporate strategy and a powerful driver of economic growth (Kamel, 2005). This quickly developing economy is bringing with it swiftly evolving technologies, increasing information intensity across all business sectors, and spawning virtual supply chains as well as new avenues for conducting business and receiving services (Clarke, 2009). There is a widespread view that any financial institution must adapt to new technologies in order to remain viable and gain a competitive advantage.

Therefore, the new alternative delivery channels (ADCs), such as mobile and online banking, must be implemented by banks. Most studies have been conducted in Asia and Europe's industrialized and developing economies (Hasan, 2005). The above-mentioned channels have not exactly been studied and adopted in Zimbabwe as much as would have been preferred. This is made worse by the fact that Zimbabwe has seen its fair share of difficulties over the past few years.

1.1 Background of the Study

Due to the availability of robust and accessible banking systems in these countries, global uptake of mobile money in the developed world has been minimal (Comninou, 2008). In developing countries, however, the lack of well-developed banking systems and other money transfer services has resulted in widespread use of mobile money services.

The banking industry is essential to the recovery of the economy since it lends money to business. Information technology (IT) is evolving into the most significant aspect in the future development of banking, influencing banks' marketing and business strategies. ADCs like online banking and mobile banking have seen an increase in popularity in recent years. Due to ongoing IT innovations and highly competitive financial markets, they are being employed as distribution channels more and more (Sullivan, 2005).

Especially in the early 2000s, numerous local banks in Zimbabwe have recently made large investments in their internet infrastructure. Although banks have made significant investments in this area of bank service delivery, Zimbabwe has lagged in adopting internet and electronic banking. The installation of automated teller machines (ATMs) by Standard Chartered Bank and Central Africa Building Society (CABS) in Zimbabwe at the beginning of the 1990s was the country's first notable instance of electronic innovation (ATMs). Electronic Funds Transfer Systems (EFT), telephone banking, PC banking via electronic data interchange (EDI), and most recently internet banking are other electronic advances that have made their way into Zimbabwean institutions. These have freed banks from the limitations of space and time, allowing them to lower transaction costs, enhance the quality of their services, and better meet consumer expectations.

At the end of 2003, Zimbabwe experienced a financial crisis in the banking sector, resulting in the closure of most banks and a loss of public trust in the banking sector. The loss of public trust in the banking sector persisted until 2008, forcing banks to engage in non-core activities in order to strengthen their financial base. In an effort to increase the use of plastic money, the Real Time Gross Settlement (RTGS) system was used more frequently in 2007. This had a significant impact on the economy, as retailers charged different prices for their goods when using plastic

money versus cash money. To keep up with inflation, the general public stopped putting money in banks and instead kept it in foreign currency.

Any economy's largest and most significant sector is the financial services, and within that, the banking industry dominates. Retail banks, commercial banks, investment banks, and credit unions are just a few examples of the various sorts of banks. Financial services are increasingly being provided by other sorts of enterprises, such as supermarkets (Johnson, 2008). There are many different sizes of banks, and they offer a variety of services. This sector is dominated by commercial banks, which provide a wide variety of services to both individuals and businesses, including the protection of cash and valuables as well as loans, credit, and bill payment options (Claessens, 2002).

According to Thompson (Thompson, 2003) the driving forces behind banks' rapid transformation include influential changes in the economic environment, innovations in IT, innovations in financial products, financial market liberalization and consolidation, and deregulation of financial intermediation. These and other factors make developing a bank's strategy difficult. Unexpected developments and changes in the economic environment threaten the process, so strategies must be adaptable to these changes. Banking has never been more important to humanity than it is right now. According to (Gates, 2008) "banking is essential, but banks are not" (para. 4). IT has fundamentally altered the global landscape as well as the face of the banking industry. Internet banking has presented banks with new opportunities such as 24/7 banking and low costs, as well as challenges such as increased risk and security (Sathye, 2009)

Distance limitations and a lack of physical branches in rural areas are overcome by the fact that mobile money services can be accessed anywhere where there is a wireless phone service . (Mangwendeza C. L., 2012)

1.2 Statement of the Research Problem

The benefits of mobile banking are frequently viewed in terms of facilitating money transfers among the public. (Bhasin, 2007) However, studies (Njanike, 2010) conducted in the Zimbabwean financial sector reveal that, even though several mobile banking services are available to banking customers, adoption and usage of these services is relatively low. The financial inclusion barriers of mobile banking customers and the impact of mobile banking on financial inclusion are unknown. As a result, the unbanked and underbanked continue to be marginalized or excluded from beneficial participation in the formal financial sector. This study aims to fill a gap by focusing on the barriers to financial inclusion faced by mobile banking customers, as well as the usage of and mobile and internet banking.

Internet and mobile banking are critical to development because it increases competitiveness, fosters innovation, and promotes growth. In several ways, it has transformed the banking industry. Its benefits to the institutions that have adopted it include lower transaction costs, faster customer service, and the introduction of new products and services to consumers, financial inclusion for the poor, and it goes beyond geographical impediments such as distance and other customer conveniences. Foreign banks have more capital and liquidity, but lower profitability than domestic banks, so they must work harder and smarter to compete. Lower profitability is usually the result of bureaucracy, which causes changes to specific national economies to be implemented slowly.

1.3 Research Objectives

The study will assess the usage and acceptance of mobile and internet banking by Zimbabwean residence.

The main objectives of the research are to:

1. Explore measures that can be used to reduce risks associated with internet and mobile banking services.
2. To explore challenges that are faced by people due to the use of internet and mobile banking.
3. Explore strategies which can be adopted in order to enable a positive impact of mobile banking services on financial inclusion
4. To evaluate the internal factors that influence the adoption of internet and mobile banking services by customers

1.4 Research Questions

The investigation will aim to address the following questions:

1. What are the risks that are associated with internet and mobile banking services?
2. What problems are arising because of the use of online and mobile banking, and how can they to be resolved?
3. What strategies can be adopted in order to enable a positive impact of mobile banking services on financial inclusion?

4. What are the factors that may contribute to customers' slow adoption to internet and banking services in Zimbabwe?

1.5 Assumptions/Hypothesis

In conducting the research on the adoption of internet and mobile banking, the following assumptions were made

1. That all respondents would be cooperative and provide reliable responses,
2. All respondents have used internet and mobile banking before.
3. Information and communication technology (ICT) security policies are current throughout the organization.

1.6 Significance of the Study

The financial sector is also said to be the economy's lifeblood (Bhasin, 2007). The banking sector, as a subset of the financial sector, is critical to Zimbabwe's economic survival. As a result, the performance of Zimbabwe's banking sector is critical to economic recovery. To ensure long-term growth and survival, the banking sector has been characterized by technological innovation, particularly the introduction of e-commerce and e-business related products and services. The banking sector has also been marked by competition, as financial institutions such as Steward Bank, FBC bank and NMB bank continue to introduce new products and services to increase its market share and profits.

1.7 Limitations

There are limitations to this study.

1. Access to some information was restricted because it was necessary for the study to have access to specific individuals and documents.
2. It's also possible that the participants were biased toward just providing answers that agreed with my hypothesis
3. The sample size might not have been sufficient to provide a strong foundation for the study.
4. The research may not be completely accurate because it primarily relies on secondary data.

1.8 Delimitations

The delimitations of this research are as follows:

1. The research study only focuses on internet and mobile banking adoption in Zimbabwe only.
2. Only studies conducted between 2002 and 2022 were deemed eligible for the systematic literature review
3. The conducted systematic literature review focus only on published articles including journals articles, student theses and unpublished article due to limited resources.

1.9 Outline of The Research Proposal

The research project spans the years from the Zimbabwean economy's dollarization in 2009 to 2022. Most of the research was conducted in Harare, which is a city in Zimbabwe. The study concentrated on mobile banking customers in Harare and particularly the residents of Southerton. The participants included low and middle-income mobile and internet banking customers.

Chapter 2: Literature Review

2.0 Introduction

A literature review is a compilation of material from other researchers that is relevant to the researcher's field of study. It is a method of recognizing the work done by others prior to the study in the same field as the study. It is a concise summary of what has been studied, argued, and established about a particular topic, and it is typically organized chronologically or thematically (Greener, 2008). It assesses previous and current research to determine how relevant and/or useful it is, as well as how it relates to the research. The author attempts to demonstrate what has been studied in the field, as well as the weaknesses, gaps, or areas that require further investigation. As a result, the review should also show the reader why the writer's research is important (Fischer, 2010).

Some of the concepts and products identified in the literature, such as mobile banking, electronic funds transfer systems (EFTS) and internet banking have been used in the Zimbabwean banking sector in transaction processing, albeit with limited usage and adoption by customers who continue to use cash (Dube T, 2008). Some concepts, such as depositing cash at an ATM, have yet to be fully adopted in Zimbabwe (Ndlovu, 2013).

1.8 Theoretical Framework

The technology acceptance model (TAM), developed by (Davis, 1989) in the late 1980s, is used by researchers to simulate user adoption of information technologies. TAM theory, according to Davis, is a systems theory of how people come to embrace and use technology. Perceived utility and perceived usability, in TAM's opinion, are the key factors in determining whether or not consumers will adopt a technology (Davis, 1989). The invention diffusion theory (IDT), developed by Rogers in 1995, explains how five innovations spread over time through several channels among people and society. Researchers use IDT theory to examine the perceived risk associated with introducing an innovation into a social system. Consequently, researchers can utilize TAM and IDT to investigate the relationship between usability, risk, and likelihood of adopting mobile and internet banking.

TAM theory has been used by prior researchers to examine consumer acceptance of mobile and online banking (Davis, 1989). I chose TAM as a theoretical framework for conducting this empirical study since usability and ease of use are factors that may have an impact on the adoption of mobile and internet banking (Tobbin, 2012). In addition, I extended the original TAM using the IDT (Rogers, 1995) to evaluate the effectiveness of predictors that might affect Zimbabwe's adoption of mobile phone banking. As a result, I used the IDT construct of risk as an independent variable in my quantitative investigation. In order to complete IDT and TAM as part of the theoretical framework, I employed the cost construct.

2.1 Banking

Banks play an important role in the nation's economic life. The health of the economy is inextricably linked to the stability of its banking system. Although banks do not create new wealth, their borrowing, lending, and related activities help to facilitate the process of wealth creation, distribution, exchange, and consumption (Claessens S. a., 2013). Banking is a critical component of the 21st century economic system, without which modern trade and commerce would be nearly impossible. Banking encourages savings for people from all walks of life, as

well as investments in industry, agriculture, and trade. It is an essential component of international trade. For progress and prosperity, the world requires a modern, effective, but simple banking system (Pagano, 2012).

2.1.1 Bank competitiveness

Competitiveness refers to an organization's or a country's capacity to supply goods and services that satisfy local and international quality standards at prices that are competitive and yield appropriate returns on the resources used or consumed in their production. The ability and performance of a company, industry, or nation to supply goods and/or services in a specific market is referred to as competitiveness (Thompson, 2003).

With a focus on innovation and a strong enthusiasm for financial health, banks should be dedicated to delivering a service that will surpass the expectations of their discriminating customers. Banks provide their services to all societal levels by offering a range of goods that are tailored to their specific target market. In this dynamic and fiercely competitive business world, banks need to keep implementing ground-breaking innovations and embracing new technology. Focused and innovative business procedures help companies gain a competitive advantage (Porter, 1990). According to (Kotler, 2002), developing a solution that you can position to establish your competitive advantage is the key to competitive differentiation. Banks, as well as all companies, can differentiate themselves by value-added services, pricing strategy, packaging, support, distinctive messaging, quality, direct/indirect sales channel techniques, the business model, demand creation techniques, or customer experience (Bhasin, 2007).

Gaining a competitive advantage, according to (Porter, 1990), is essential for profitability and sustainability. Banks must take the best possible ethical and legal positions to outperform the competition. One of the main components, even in the financial and banking sector, is being

inventive and technologically advanced. in terms of prosperity. A company has a competitive edge when it can offer the same benefits as a rival company while charging less, or when it can offer benefits that are superior to those of rival products. When a bank adopts a value-creating strategy that no other existing or potential competitors are concurrently adopting, it gains a competitive edge.

2.2 The Internet

(Jayawardhena, 2000) claims that this is a sizable, networked, packet-switched computer network. There are three definitions of mutual consent namely a network using the TCP/IP protocols, a group of individuals who use and create those networks and a group of resources that are accessible through networks.

There are a variety of new organizational opportunities and problems brought on by the development of the internet. Internet banking (IB) and appealing websites are the two most popular online e-channels (Curran, 2005). Although other e-channels like Interactive Television (iTV) and Wireless Application Protocol (WAP) technologies are available for service delivery, their use is still restricted in the provision of financial services. However, there are some characteristics that enable the web to be an efficient channel for advertising, marketing, and even direct distribution of goods and services.

One service provider's servers and clients can be connected to another using Virtual Private Networks (VPN) and Multiple Paths Layered Switching (MPLS) configurations to deliver cloud computing. This facilitates real-time access to internet systems and makes integration simpler, cheaper, and easier.

The internet has two effects on how future services and products are distributed. First of all, the expenses associated with using it differ from those associated with traditional distribution channels and the services they produce. Second, clients are influenced by the internet; many spend time and resources into learning how to use computers and the internet (Apte, 2008). Other consumers don't learn computer skills or get comfortable using the internet. Similar needs between these two consumer segments are probably present. As a result, modifications to the entire distribution channel are likewise influenced by the current distribution channel.

The value chain of the business can benefit greatly from the Internet. It offers the chance to reach a larger client base and can enhance the company's relationships with suppliers and vendors, internal operations, and customer relations. Additionally, the Internet promises to drastically reduce reducing communication costs by removing barriers caused by distance, time zones, and places (Tan, 2007).

Due to the development of the internet, there are now virtual businesses that have little to no physical presence in terms of retail locations but nevertheless have access to both domestic and foreign customers (Shah, 2009).

The Internet has been crucial in SST in providing more affordable avenues that have been used to improve company performance (Xue, 2007). However, as it is no longer a source of a competitive advantage general and available to all universities. The financial systems that use e-channels must achieve a critical mass in order to be successful; as a result, they are constrained because their performance depends on a target market's adoption of the internet platform.

2.2.1 Internet and Mobile Banking development in International Stage

The four largest banks in New York at the time—Chase Manhattan, Manufacturers Hanover, Citibank, and Chemical—began providing online services over the videotex system in 1981. But it didn't live up to the expectations. Only the Minitel and Prestel systems in France and the UK were effective (Bradley, 2002). (Hannan, 2008) continues by stating that customers of Nottingham Building Society were the country's first users of internet services. Along with the Bank of Scotland, it was helped get started in 1983. Up to 75% of all banks use internet banking, which is most prevalent in nations like Austria, Korea, Singapore, Spain, and Switzerland. Furthermore, a third of Finland and Sweden's bank customers utilize e-banking, demonstrating how advanced the Scandinavian nations are in terms of internet usage (Chang, 2008).

The marginal cost of transactions performed through i-banking was always a minuscule portion of what branch banking activities would have cost. Dozens of independent online banks were founded as a result of this fact. In order to address this, European banks have invested billions of euros in constructing direct channels like the web, modernizing branches and call centers, and attempting to combine all of these channels. Experts in the field of finance e-banking was expected to have a bright future (Kerem, 2003). Following a few exciting years, it seemed as though the banks' anticipated increased earnings in this sector would not materialize. The majority of online banks in Europe and America are either closing their doors or reintroducing certain aspects of traditional branches as the industry as a whole struggles. In order to grasp the true cost of this circumstance, a thorough investigation is required. According to consulting firm Ernst & Young, British banks' costs were reduced via the internet by just 0.1% in 1999, despite their somewhat heroic hopes for a 25% reduction (Research, 2008).

2.2.2 Internet and Mobile Banking development in African region

According to (Mensah, 2011), Africa is in danger of falling behind on a new and expanding global market that already had e-business transactions worth US\$1.7 trillion in 2004. The process of innovation has extended and accelerated in all areas of every major economy, spurred by changes in corporate supply chains and the expansion of internet markets. Increasing the availability of financial services is a key strategy for enhancing the standard of living of people in emerging economies. Unfortunately, only a small portion of the population in developing markets—roughly 2.7 billion people—can use these services.

Sub-Saharan Africa was the last continent to adopt ICTs like the internet and mobile technology, according to (Al- Sukkar, 2005) .Local internet connection was only available in a relatively small number of nations ten years ago, but things have changed significantly since then. Sub-Saharan Africa has a growing number of nations that rely on public and commercial internet access points, which take advantage of the trend by charging high rates for their services. Despite this enormous increase in ICT use, serious issues with unstable power supplies looms large.

By the end of 2010, the mobile penetration rate in Zimbabwe increased from below 10% to above 50%. This rate measures the proportion of active mobile phone users within a certain population. Although there are many mobile phones in the country, just 1% of financial transactions were made on this platform in 2010. Market observers claim that developing countries are primarily cash society, making it harder for policymakers to push e-commerce platforms, especially when utilizing mobile devices. Additionally, the countries' existing bandwidth problems make it challenging to build trustworthy e-commerce communication networks. It is anticipated that the country would have access to additional bandwidth with the installation of more redundant linkages with the underwater cables (Chamisa, 2011).

Even though the mobile phone revolution is advancing, several African countries are falling behind. Economies like South Africa (88% mobile penetration), Algeria (81%), and the majority of North Africa are close to achieving this goal. However, certain countries, like Ethiopia, Burundi, Rwanda, the Central African Republic, and Eritrea, are still far behind because they are all below 7%. Included among the causes of this are big signal dark patches, low literacy rates, and low pay. High taxes, such those on income, exacerbate these problems. 30% is the level in Tanzania and Uganda (Mensah, 2011). More than 60% of Africans live in rural areas, where there is no financial infrastructure.

2.3 E-banking (Internet Banking or Online Banking)

E-banking, also known as Internet banking or online banking, is the practice of transacting virtual banking or financial functions online in a safe and secure manner using an e-commerce application or platform to deliver or access banking products and services (Ali, 2014). E-banking includes transactions made through an ATM, point of sale, or wireless intrabank and interbank transfers. A study conducted by (Dzama, 2013) found that the extent of internet banking usage and adoption in Zimbabwe's commercial banking sector has remained low, and that banks need to launch promotional campaigns to raise awareness and interest in e-commerce products.

2.3.1 Forms of Internet Banking

Informational, communicative, and transactional internet banking are the three functional levels of the technology that are now used in the market, according to (Goi, 2005). The bank employs a single server to promote its goods and services on informational websites first. There being nonnetwork risk for a direct connection between a server and a bank's systems is minimal. Websites that enable limited interface between bank systems and their customers are considered communicative/simple transactional websites, which are the next stage. Email, account inquiries,

loan applications, and revisions to static data are acceptable interfaces; however, cash transfers are not. Last but not least, Advanced Transactional websites enable the most interactivity as customers are permitted to conduct any online transactions, including electronic money transfers to and from their accounts and the payment of bills among other things.

2.4 Adoption of E-banking (Internet Banking and Mobile Banking)

The establishment of customer awareness of the product or service is one of the most crucial characteristics for adoption or acceptance of any innovative service or product (Ali, 2014). To this extent, (Bradley, 2002) asserted that consumers go through a series of processes in knowledge, conviction, decision, and confirmation before they are ready to adopt a product or service. The adoption or rejection of the innovation starts when the consumer becomes aware of the product, according to these authors.

Consumer awareness, usability, security, accessibility, technophobia or simply resistance to change, preference for individualized services, and cost of adoption are some of the key psychological and behavioral factors that influence the adoption of any new innovation, such as electronic banking (Ndlovu, 2013). However, merely raising awareness is insufficient because consumers would disregard an innovation if it was overly complicated and difficult to use. According to (Hannan, 2008), one of the three crucial factors influencing consumer adoption of new products or services is their simplicity of use.

The usability of domain names, in addition to the websites' navigational tools are a key factor in determining how user-friendly they are. According to (Dzama, 2013) , the degree of security or danger attached to an electronic banking innovation also has a significant impact on its

acceptance and implementation. One of the most significant barriers to the adoption of this new innovation is customer worry over the security of online financial transactions, even in nations where electronic banking is well-established. This was validated by an empirical study on customers done by (Sathye, 2009). Additionally, users of electronic banks would be interested to see how banks would typically handle incorrect online transactions. Will it be the consumers' responsibility to provide evidence, or would the banks be willing to resolve the dispute now and look into it later. In this situation, the factor of trust would decide both the long-term acceptability of this alternate delivery channel as well as the security of transactions for consumers in general. According to (Pagano, 2012), consumers' lack of trust in the Internet and connecting networks as a retail distribution channel is to blame for the failure of these platforms' online retailers and through technological channels. In this situation, the factor of trust would decide both the long-term acceptability of this alternate delivery channel as well as the security of transactions for consumers in general. According to (Al- Sukkar, 2005), consumers' lack of trust in the Internet and connecting networks as a retail distribution channel is to blame for the failure of these platforms' online retailers and through technological channels.

In this situation, the factor of trust would decide both the long-term acceptability of this alternate delivery channel as well as the security of transactions for consumers in general. According to (Stewart, 2000), consumers' lack of trust on the Internet and connecting networks as a retail distribution channel is to blame for the failure of these platforms.

Consumers might not be willing to transition from the current modes of operation unless such a requirement is met. According to (Rogers E. M., 1971), numerous strategies can be used to get people to accept change. Giving customers individualized customer care representatives to help them complete transactions via the Internet and offering value-added services that aren't already

offered through regular banking channels can both contribute to lessen the resistance to change among customers (Sathye, 2009). A necessary condition for the adoption of electronic banking is the availability of Internet connectivity. The likelihood of using electronic banking increases with the availability of computers, connected networks, and the internet. Lack of computer access was one of the potential causes of the slow uptake of electronic banking, according to (O'Connell, 1996). The Zimbabwean government has promoted the acquisition of electronic devices in recent years in an effort to persuade citizens to embrace information technology (Tandon, 1998). In general, some consumers have been wary of new technology.

These customers could lack the expertise or know-how to work with computers in particular, therefore they rely on more than computers and other devices, there are people. Their aversion to technology and computers typically intensifies over time and eventually turns into a phobia. So, technology anxiety is another factor that can deter clients from choosing internet banking (Bradley, 2002).

2.5.1 Benefits of Internet Banking

According to Parisa, conventional financial institutions who provide online banking services do so in an effort to minimize operating expenses, enhance consumer banking services, keep clients, shrink their branch networks, and reduce the size of their service employees. With the development of the Internet, operational and communication costs for every firm are decreased. Following is a discussion of the particular advantages of online banking:

Cost savings: According to (Chen, 2013) banks can enjoy lower transaction costs thanks to Internet banking, which involves less paperwork, fewer employees, and fewer physical branches, hence reducing overhead expenses related to bank personnel and bank branch costs.

(Al- Sukkar, 2005) support the idea that technology may improve service quality for banks and boost customer satisfaction and loyalty since clients can access services from the comfort of their homes and offices. The provision of high-quality services may also result in consumers who are profitable for the bank, according to (Nath, 2001)

Customer convenience: Since transactions can be made at any time and there are no time constraints, internet banking is more convenient for customers. This is because they don't have to go to the banking hall to complete them.

Long-term survival of bank: According to (Aladwani, 2001), internet banking is positively related to customer retention, a stronger competitive edge, and higher returns, which can result in the long-term survival of the bank.

2.5.2 Challenges of Internet banking to customers

High Cost of Internet Services-Nancy et al. concur that most less developed countries are being excluded from the tremendous opportunities and benefits that the technology offers in terms of education, government, commerce, and research due to the high cost of internet services and products.

Security is a concern for many online banking users. Usernames and passwords are frequently intricate. Most of the time, this is advantageous because nobody else would have predicted them. If the buyer can't recall them, though, it may be an issue. The customer's account could not be accessible whenever they want it to be without going through a rigorous security process.

Fraud: In their empirical study of e-banking in Malaysia, (Bradley, 2002) noted that Internet banking, like any other business environment, is vulnerable to fraud. Every industry is rife with scams, and online banking is no exception. On phony bank websites, one type of fraud is

committed. These are clone websites that mimic the design of your online banking website. They can appear if the site URL for your bank is spelled just slightly incorrectly. If caution is not used, a client may enter his login and password before realizing that he is not actually linked to his own bank.

Internet banking services are available, although there is an issue when there is a lot of traffic on the bank's computer system. It's possible that customer transactions won't be completed right away. Other communication breakdowns involving banks may result in mistakes or delays. It might be a major issue if a computer virus ever infects the bank's computers. It might take some time to order the chaos.

Expensive and Unreliable Internet Connection – The utilization of internet banking services is significantly impacted by extremely high internet connection fees and frequent service interruptions.

Absence of specialized internet banking legislation and regulations According to (Davis, 1989), it is unclear if electronic papers and records constitute adequate proof of a transaction. They also make the key point that the accessibility of using the internet for business reasons raises major questions about judicial jurisdiction and conflict settlement processes. Conflicts can occur for a variety of reasons. For example, a website is not a bank office. As bemoaned by Speece, it is challenging for courts to determine the location of the branch and whether they have jurisdiction.

According to (Aladwani, 2001)), technophobia is the dread or distaste for complicated or modern technology, particularly computers. Many individuals still avoid using online banking because they believe it is too complicated to master, especially the elderly.

2.5.3 Challenges of Internet banking to Banks

In his report on the virtual conference on E-banking for the poor, Ron Webb (The Manager Paynet E-company), cited in (Ngango, 2015), listed certain challenges that most online banks have while integrating the new technology. The main restrictions on e-banking are as follows: Vision/Inertia- When the thought of trying to effect change first arises, the fear of uncertainty becomes a daily agony. As a result, it becomes extremely difficult to abandon an established, outdated style of doing things. Infrastructure - It goes without saying that a lack of reliable, affordable data connectivity and energy is a major barrier to the adoption of e-banking, particularly in developing nations like Zimbabwe. These limitations limit the amount of e-banking that motivated consumers would have used.

2.5.4 Benefits E-Banking over Traditional Banking

Electronic banking is transforming the banking industry, and it primarily affects customer-banker relationships. For instance, tasks that were previously only accessible in a branch, such withdrawing cash, depositing checks, or requesting a statement of accounts, are now available 24/7 through any delivery stations. Offering e-banking is frequently evolving from a "good to have" to a "need to have" (Ali, 2014). Instead of "handling branches," banks are "managing distribution" across all the bank's channels.

E-BANKING	Traditional Banking
The market is unlimited	The market is limited
Competing brands	There is big competition between banks
Very wide service base on customer needs	There is limited service

Bank rigs equipped with electronic features	Services will be provided on the base of specific branches
Focus on Cost and Revenue growth	High cost to make money through margins
24-hour services	The service should be done during office hours
Using of manpower will be reduce by the use of more computer systems	A lot of human resource is required

Table 1 Comparison between e-banking and traditional banking

When compared to traditional banking services, which are listed in Table 2.1, (Chang, 2008) claims that e-banking service has numerous advantages and all of the functionalities. Compared to branch transactions, e-banking transactions are less costly. It improves competitive advantage, enabling online banking to compete with physical banks. Financial experts classify banking services into two main theoretical categories: conventional and contemporary. However, client presence is significant in conventional banking, but not in contemporary banking (Chang, 2008).

2.6 Factors affecting the adoption and use of Mobile and Internet Banking

In his study on the acceding and candidate countries' (ACCs) adoption of e-banking, Centeno (2004), referenced in (Bradley, 2002), divided the variables influencing adoption into two categories: ICT factors and banking factors. Customers' propensity to use the internet and other associated technologies, privacy and security issues, penetration rates, and attitudes toward technology are among the ICT aspects. Trust in the banking sector, banking culture, and digital banking drive are all banking-related variables.

The absence of personal computers and online access, according to (Dzama, 2013), is a hindrance to the development of digital banking in both emerging and established economies. The biggest barrier to internet adoption in Eastern and Central Europe is the cost of access to services. In contrast, there has been a lack of faith in the financial sector as a result of earlier difficult times in several nations (Aladwani, 2001). This study focuses on finding the variables influencing the adoption of digital banking in Zimbabwean commercial banks. The deconstructed theory of planned behavior is the foundation of the research framework for this study (Aladwani, 2001).

2.6.1 Customer Attitude

When it comes to engaging in desired behavior, attitude is defined as the negative and positive emotions (evaluative impact) (Ali, 2014). Utilizing the five perceived features of innovation—compatibility, complexity, relative benefit, observability, and trial ability—in particular the first three characteristics, it is possible to quantify different components of attitudinal belief. With the exception of observability, which may be defined as the degree to which the effects of an invention are observed by others, these traits were first proposed in the diffusion of innovations theory by (Chen, 2013), who found practical applicability within this paradigm (Chen, 2013). Because privacy is an important aspect of banking, observability was deemed unimportant in this study. Therefore, seeing others use online banking services might seem to be consequently, unless a deliberate effort is made to do so, seeing others use digital banking services might seem intimidating.

2.7 Mobile Banking

This section goes into detail about mobile banking. The emphasis is on its success stories, business models, drivers, and the various technological solutions available for use in mobile

banking. In the marketplace of ideas, mobile banking, also known as m-banking, is conceptualized in a variety of ways (Sohai, 2004) . (Sohai, 2004) defines mobile banking as a mobile commerce application that allows customers to bank virtually at any convenient time and place. This definition acknowledges the importance of mobile banking services or applications to banking customers. (Tiwari, 20007), on the other hand, define mobile banking as the provision of banking and related financial services such as savings, funds transfer, and stock market trading.

However, for the purposes of this study, (Diniz, 2011) more comprehensive definition of mobile banking will be used. The authors define mobile banking as a collection of mobile banking services that involve the use of portable devices linked to telecommunications networks to provide users with access to mobile payments, transactions, and other banking and financial services linked to customer accounts, with or without the direct participation of traditional banking institutions. This definition emphasizes both the mobile banking service and the channel through which it is delivered. In essence, it emphasizes the relationship between the mobile phone and the channel through which the service is delivered.

2.7.1 Mobile Banking Business Models

Depending on the target market being served, different mobile banking business models are developing (Al- Sukkar, 2005). Who develops the relationship with the customer determines how differently the models operate. The account can be opened, deposits taken, and loans made by the bank or mobile network operator (MNO). Three categories can be used to rank the models. Particularly, they are non-bank led, bank oriented, and bank led (Claessens S. G., 2002).

A bank-focused model is one in which a conventional financial institution uses unconventional means of reaching out to its current clients. In comparison to current techniques of service

extension, these channels are typically less expensive. Automated teller machines (ATMs), mobile banking, and online banking are three examples of such a channel. The approach is considered as an expansion of the current standard banking activities and adds to them (Curran, 2005).

In contrast, a bank-led approach offers an alternative to traditional branch-based banking in that users can complete financial transactions using a mobile phone through a network of agent retail locations. (Apte, 2008) asserts that the bank-led model has the ability to benefit and broaden the accessibility of financial services. This is mostly since it uses various delivery channels, trading partners, and target markets. Additionally, this route is less expensive than the conventional bank setup. Solutions for mobile banking technology are covered in the following section.

2.8.1 Perception of risk of mobile and Internet Banking

In their research on the adoption and usage of mobile and internet banking in the Mauritian banking industry, (Al-Sukkar, 2005) make the case that user perceptions of risk had an impact on the uptake and use of new technologies like mobile and internet banking. They said that adopting new technology caused consumers' anxieties, leading them to choose the traditional banking channels that they believed to be secure against fraud and data theft. According to (Bhasin, 2007), banks should try to decrease the perceived hazards and boost the possible advantages of utilizing mobile banking by educating and providing the intended users with pertinent information. The researcher used these recommendations as a springboard to investigate whether users' intentions to use or embrace e-commerce items in Steward Bank Limited are influenced by perceived risks, possible expected advantages, and the availability of appropriate information about such products.

2.8.2 Perceived usefulness of Internet and Mobile Banking

Banks provide clients with a variety of e-commerce goods and services, including e-banking, ATMs, local and international debit or credit cards, and mobile banking. Banks must make sure that their clients can easily understand and utilise the products or services they are delivering. According to (Liao, 2002), perceived usability was defined as the degree to which a prospective user acknowledged that using a particular system has the potential to increase job performance. Perceived ease of use was defined as the degree to which the intended user considers using a specific service or product to be effortless.

(Aldas-Manzano, Lassala-Navarre, & Ruiz-Mafe, 2012) defined perceived utility as the advantages of mobile banking and the value of mobile phones for conducting transactions, while perceived ease of use was defined as the simplicity with which mobile banking may be used and learned. Perceived utility, according to (Riquelme, 2012), is a key factor in determining whether or not financial services are successfully adopted and used.

According to a meta-analysis research on the Technology Acceptance Model (TAM), perceived usefulness affects perceived ease of use, and both of these factors affect behavioral intention. On the other hand, (Akturan, 2012) discovered that there was no direct relationship between attitude and perceived attitude and perceived attitude and perceived usefulness and desire to use. (Apte, 2008) noted that knowledge affected how customers perceived how easy it was to use e-commerce, and he advised banks to develop methods to increase customer knowledge of, and awareness of, e-commerce items.

2.8.3 Perceived Ease of Use

This refers to the extent to which a person feels that utilizing a certain system might be done without any effort on their part, both physically and mentally (Davis a. e., 1989). According to (Rogers E. , 2003), PEOU is a significant factor that has an impact on the approval of information systems. In a causal viewpoint, regression findings suggest that ease of use may be an antecedent of viability rather than a parallel, leading factor of usage. This implies that if financial systems are easy to use, people are more likely to approve of them. If an online support is challenging to use, customers are more likely to quit up and choose another, easier method of conducting business. (Claessens S. a., 2013) looked at the elements that affect Jordanian internet-connected customers' adoption of e-banking. According to the study, adoption of digital banking is positively impacted by compatibility, PEOU, safety, and PU. PEOU was discovered to be a crucial component for the adoption of digital banking.

2.8.4 Trust

Initial trust had an impact on the perceived usefulness, according to (Zhou, 2011) empirical study on the impact of mobile banking in China. The results showed that system quality and information quality impact perceived utility, whereas information quality and structural assurance are the main factors affecting initial trust. It was discovered that each variable had an effect on the forecast of customers' propensity to utilize mobile banking. The results show that a number of variables, including information quality, system quality, and structural assurance, have an impact on initial trust, which in turn has an impact on consumers' intentions to adopt e-commerce. Figure 2.3 summarizes and contextualizes some of the elements that affect how likely customers could be to accept internet commerce.

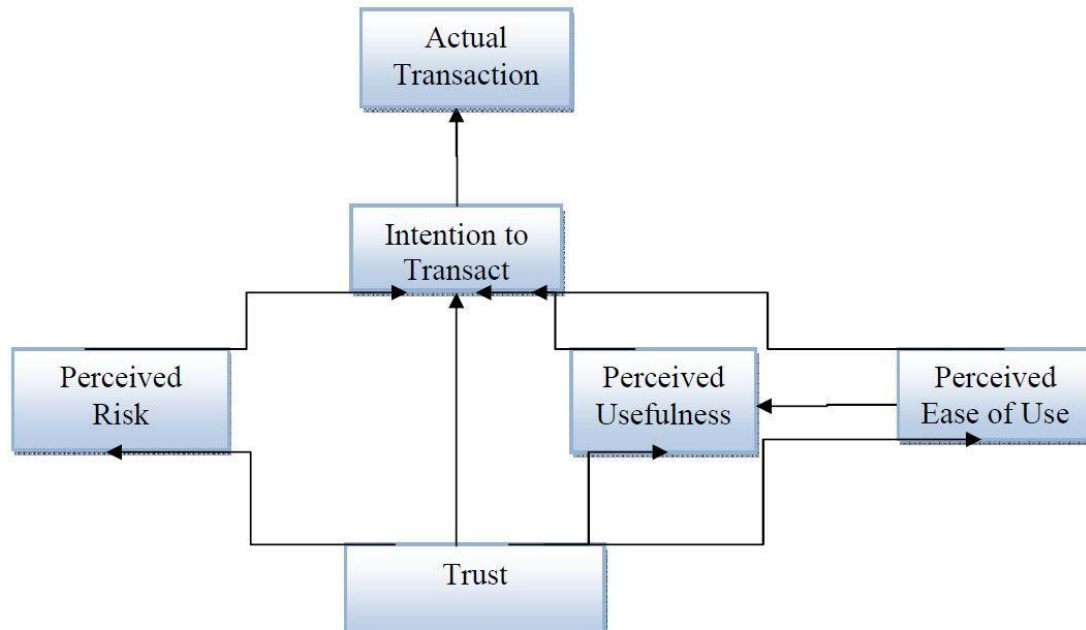


Figure 1 e- commerce acceptance model

To create the e-commerce acceptance model, (Pavlou, 2003) proposed a hybrid model that included the theory of reasoned action (TRA), which is useful in analyzing technology-driven contexts, and the technology acceptance model (TAM). A number of variables are combined in the model, including the user's purpose to transact, online transaction behavior, perceived utility, usability, perceived risk, and trust. These are a few of the elements that influence how people adapt and accept e-commerce, and they are in line with a research by (Ali, 2014) on the elements that influenced online banking adoption.

2.8.5 Human capital

Humans carry out or conduct duties and activities that support commercial transactions, such as banking processes. The degree of competition of banks is influenced by the availability, competence, and experience of the workforce (Chang, 2008). High quality human capital is a vital driver of productivity throughout the shorter as well as the longer term and should be able to quickly adapt to a changing environment, according to the Global Competitiveness Report

(2011-2012). Adoption of e-commerce includes the usage of specialized ICT goods and services, which necessitates that personnel possess the necessary technical abilities. This study aimed to determine whether or not workers have the necessary technical abilities to allow them. This study aimed to determine whether employees were technically capable of using internet and mobile banking.

2.9 Summary of Literature Review

Literature seems to indicate that banks must continue to enter into such goods in order to survive, but caution should be exercised because the local environment during the past ten or so years has been extremely unusual. Therefore, the researcher must constantly keep in mind that these scenarios' operating settings are frequently more stable than Zimbabwe's. The chapter examined the development of online and mobile banking throughout history and touched on the significance of examining the competitiveness and customer service of the banking industry.

Chapter 3 Methodology

3.1 Introduction

This chapter examines the research methodology and how the entire research will be approached. It begins by disclosing the research design and philosophy. These two will guide the rest of the chapter, which will explain the research strategy as well as data collection and analysis. In summary, this chapter examines the practical steps that the researcher took on their journey to find answers to the research questions. Each operational step in the research process specifies the researcher's selection from a variety of methods, procedures, and models of research methodology that will best help to achieve the objectives (Dawson, 2002).

3.2 Research Design

There are various research schools, each with its own set of assumptions and criteria for what constitutes good research. At the same time, different research designs exist that are independent of the various schools of thought. The researcher developed a complete design that is consistent with the assumptions and criteria of the research school and credible in terms of the norms of the research community to which he wishes to contribute, the banking sector. As shown in Figure 1, the research design is concerned with ensuring that the pieces fit together and produce a consistent and coherent picture.

According to (DeVaus, 2001), the function of a research design is to ensure that the evidence obtained allows the initial question to be answered as clearly as possible. He defines it as the theoretical framework within which a study would be carried out. The primary goal of research design is to assist in the timely and effortless collection of appropriate details at a low cost. A good research design prevents data manipulation by considering alternative explanations and allowing comparisons and judgments between them (Kumar, 2005).

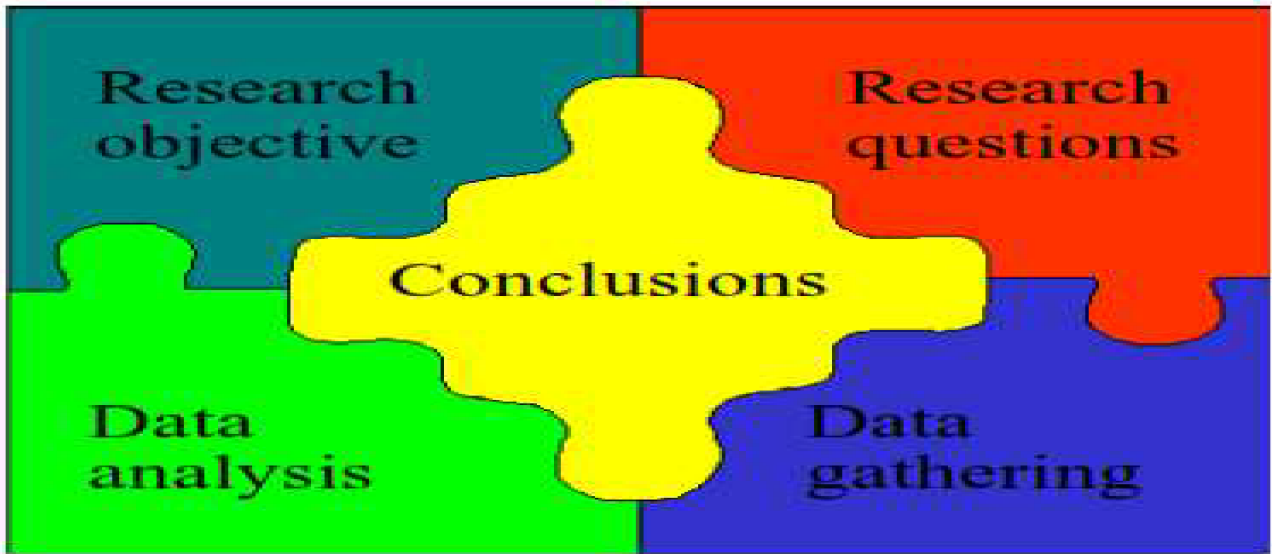


Figure 2 Research design

3.3 Research Approach

For the purposes of this study, the researcher adopted a mixed-method strategy in which both quantitative and qualitative approaches were applied concurrently. This is was done to take advantage of the benefits of both, with the former being more pronounced. The objectivity and dependability of quantitative data make it valuable, whereas qualitative data provides researchers a comprehensive understanding of the subject they are studying. Additionally, it has the capacity to draw conclusions about the participants' emotional states from main and secondary data and to portray those conclusions.

The researcher used mixed method strategy because it emphasizes on gathering, analyzing, and combining quantitative and qualitative data in a single study or set of studies. Its fundamental tenet is that combining quantitative and qualitative methods yields a greater grasp of study issues than any method by itself (Cresswell, 2003). The necessity of employing the mixed method approach is further supported by the next two subsections.

3.3.1 Population and Sampling Procedures

The sampling method that was used in this research was probability sampling. The sample for the study was created specifically using stratified random sampling. Components of the population were grouped into strata and people were randomly chosen from the strata. The researcher took care to count the strata in the population and divided them into the subpopulations that are covered below. With this technique, it is possible to stratify a population into a number of pertinent groups, increasing the likelihood that the sample will accurately reflect the population as a whole.

Individual units of analysis were then chosen by stratified random sampling, where every sixth element was chosen. From retail centers in the appropriate residential zones, all study participants were chosen. The samples were taken from the Southerton area.

3.4 Data Collection

The primary data was collected using questionnaires and interviews.

3.4.1 Questionnaires

The questionnaire was pre-tested in order to resolve important flaws with the research instrument before being given to the sample in its whole. This was done in order to highlight any ambiguities, long, poorly phrased questions, unclear choices, and to see if the respondents were given clear instructions. In the pre-test, seven users of mobile banking received questionnaires.

The pilot research, which was carried out in June 2013, tested the instrument's dependability. Internal consistency was assessed using Cronbach's Alpha. To check that each item in the instrument measures the same thing, Cronbach's Alpha was utilized. The more closely the alpha

approaches 1.00, the more consistently the measured items fall inside that range (Greener, 2008). The questionnaire in the pre-test received a score of 0.872.

3.4.2 Interviews

In order to gather data, interviewing may be thought of as a procedure that entails researchers asking respondents questions in an effort to come up with answers and solutions to their research questions (Bryman, 2007). Data on the use of online and mobile banking as well as its effects were collected through in-person interviews.

Although adjustments occasionally resulted from the exploratory nature of the interviews, questions were nonetheless asked in an organized manner. The interviewee was first asked particular questions, but thereafter, the questions were different for every interview. In order to elicit more information from the subject, extra questions were also asked. The questions were provided in advance to the researcher. All of the interviews were taped and afterwards converted to text. The Appendix contains the transcriptions. Additionally, questionnaires were given out so that the respondents may participate in the research findings at their own convenience.

3.5 Data Analysis and Organization of Data

Data editing, coding, data entering, and data analysis are the first steps in the process of data analysis (Fischer, 2010). Only the statistics and information pertinent to the data will be selected and entered into the excel file. This will be the major data entry point where the information will be examined and saved. To compare the means before and after the merger, SPSS will be employed. Tables and graphs will be used to show and evaluate the collected data, along with detailed explanations of what the results mean. The results will be assessed in light of the

conceptual framework presented in the literature study, and every effort was made to maintain objectivity throughout the research.

Analysis of qualitative data frequently centers on the researcher's perceptions and interpretations. Given that qualitative analysis depends on the impressions of the researchers, it is essential that qualitative analysis be systematic and that researchers present their views in a clear and organized manner. Given the widespread belief that qualitative research is less trustworthy and sound than quantitative research, this was especially crucial. The spoken word, context, consistency and contradictions of viewpoints, frequency and intensity of comments, their specificity, as well as emerging themes and trends, were all taken into consideration throughout the data analysis. The semi-structured interviews' transcriptions and analysis of the data revealed themes and trends. In order to create interpretive concepts that characterize the data, themes must be developed through a methodical search for patterns. For the information security procedures that the organization uses, confidentiality, integrity, and access (CIA) are essential components (Bryman, 2007) . The analysis of the records, interviews, and field notes revealed CIA themes.

3.6 Ethical Consideration

In relation to the rights of persons who become the topic of your research or are somehow impacted by it, (Saunders, 2007) define ethics as the appropriateness of the researcher's conduct. The study's broad ethical problems were addressed by informing participants that it would be conducted, obtaining their consent, and protecting participants' privacy by not disclosing their identities.

3.7 Conclusion

This chapter includes a description of the data gathering techniques that were employed, such as questionnaires, and interviews. The main subjects that were covered in the discussion were the research design, the study's demographic, the sample size, the sample design, the research method, data collection techniques, research limits, and ethical issues. Chapter 4 lists the presumptions as well as the results.

Chapter 4 Data Presentation, Analysis and Interpretation.

4.1 Introduction

Concept by concept, the findings and analysis of the research are discussed in this chapter. On questionnaires with inconsistent results, phone calls and email follow-ups were made. Filtering spoiled and useless questionnaires was part of the data processing process. The data collected was analyzed using the Statistical Package for Social Sciences (SPSS). To facilitate communication and streamline the study, the data were presented using descriptive statistics in the form of tables, bar graphs, and pie charts. The generated descriptive data are contrasted across different firm resource categories, and if appropriate, related literature is studied. Since the research used a mixed methodology, some tests were conducted to determine the sample sizes and the reliability of the results. There were qualitative remarks utilized on the data that could not be subjected to significant quantitative analysis.

4.2 Response rate

Figure 3 showing questionnaire response rate

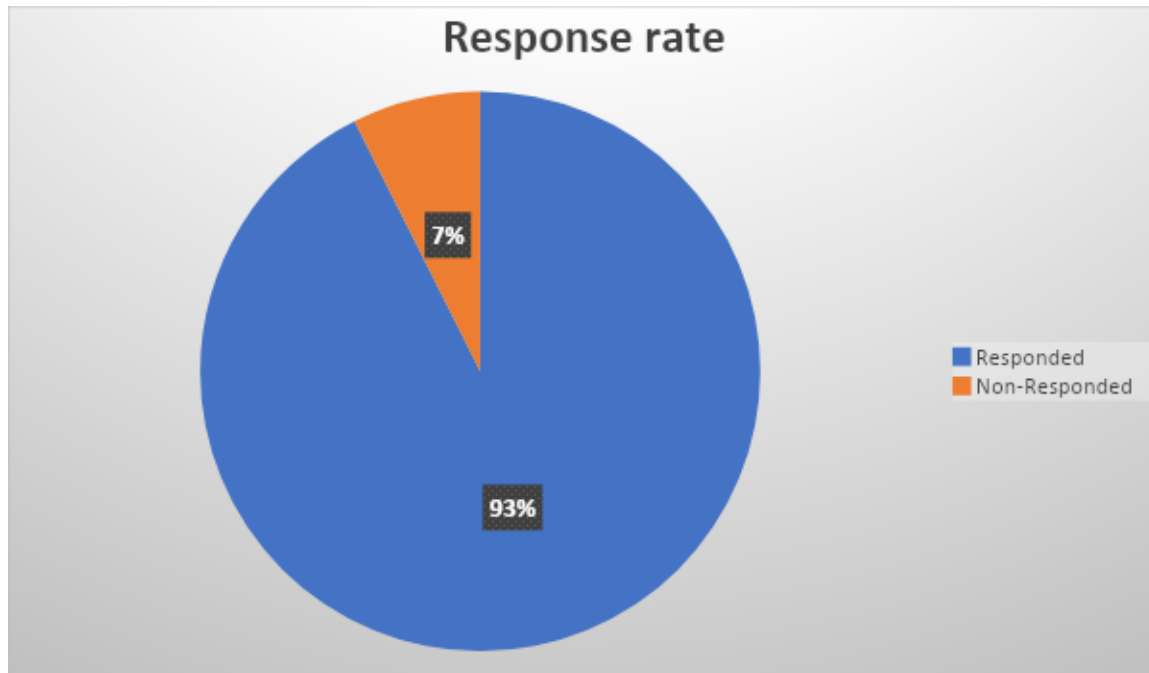


Figure 3 Response Rate

By giving 30 questionnaires to 30 different Southerton residents, the study aimed to gauge how many of the neighborhood's residents use online and mobile banking. It supplied useful information because 25 of the questionnaires (93%) were returned. Based on the response rate, it is obvious that the substance of the questionnaire answers may be trusted. According to Baruch (2009), a response rate of at least 50% is required to produce results that are reliable. In this instance, 93% was sufficient to produce accurate and pertinent data.

4.2.1 Demographic Data

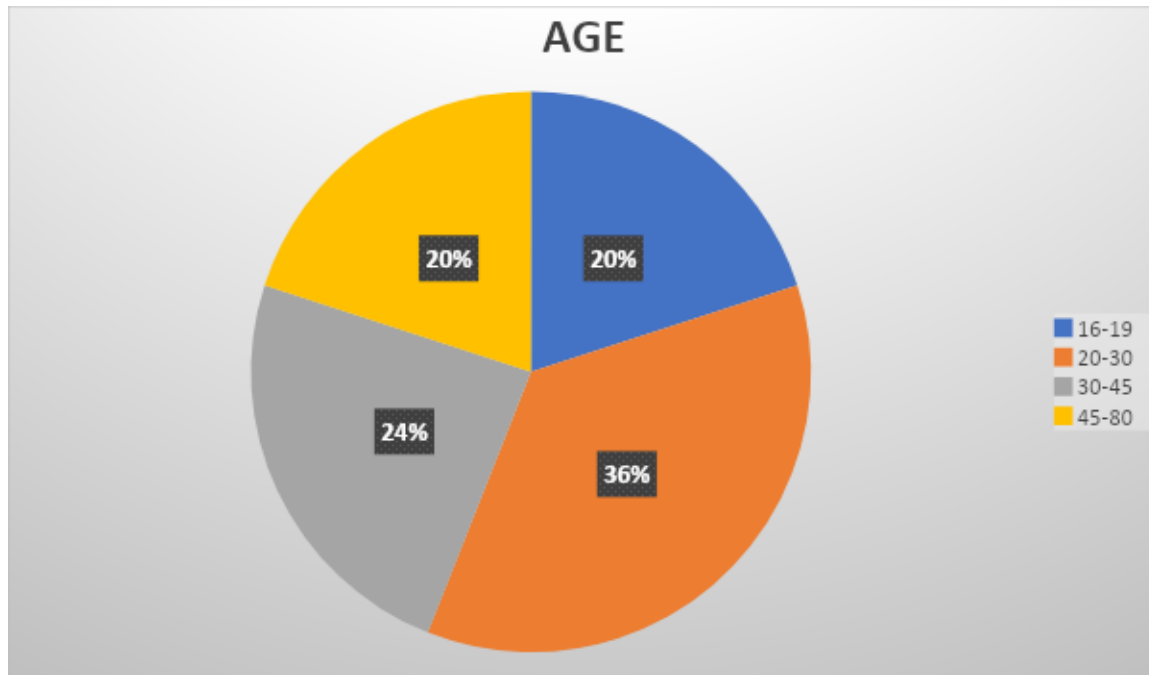


Figure 4 *Age of participants*

In order to find out more about the adoption of mobile and internet banking, the age of participants was also taken into consideration in this study. Based on the information in figure 4 (above), 36% of the participants were between the 20-30 years old range, 20% were in their 16-19s, which was also the same with the 45-80 years old range. The age was therefore accurate and knowledgeable enough to understand the issue.

4.2.2 Level of education

In addition to profiling respondents, the study examined respondents' greatest levels of education as well as their levels of ICT adoption,

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Never been to school	1	4%	4%	4%
Primary	3	12%	12%	16%
O'level	7	28%	28%	44%
A'level	5	20%	20%	64%
Tertiary	9	36%	36%	100%
Total	25	100%	100%	

Table 2 Level of Education

Participants were asked to provide information about their highest degree of schooling. Less than 5% of respondents said they had no schooling, making up the majority who were fairly educated. Over 55 % of respondents claimed to have at least finished their O and A levels, respectively. According to (Table 2), 36% of respondents indicated that they have tertiary education. It is safe to presume that all participants, from those with ordinary level education to those with doctorate degrees, comprehended the questionnaire and the goal of the study.

4.2.3 Mobile Banking Platforms Used

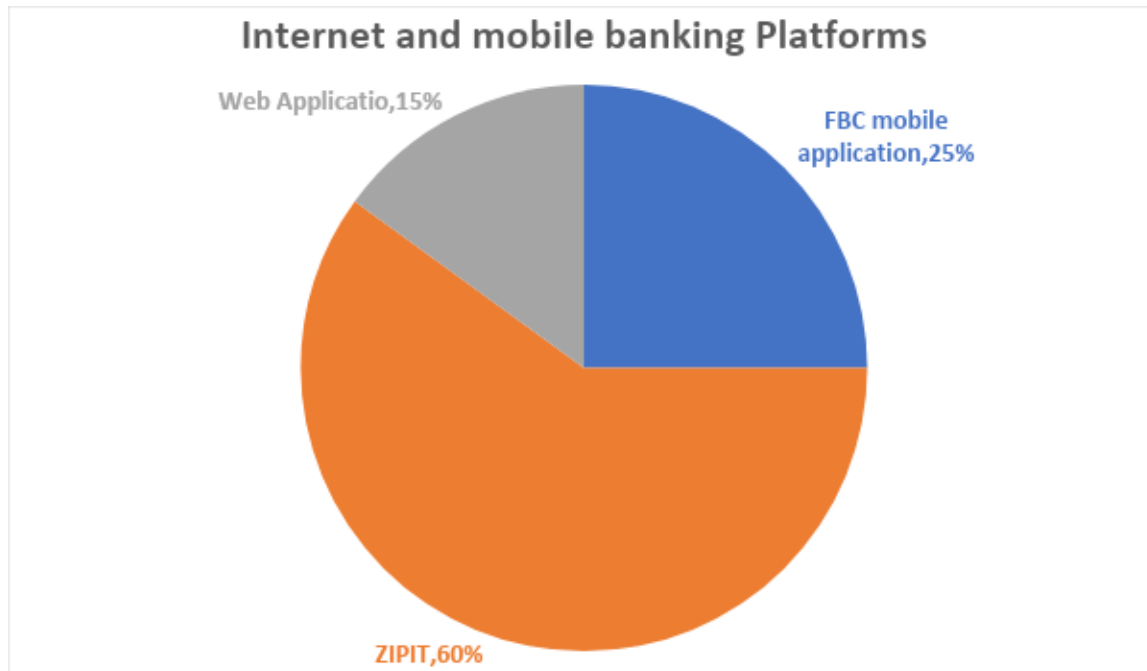


Figure 5 Internet and Mobile Platforms used

Survey participants were asked to provide information about the mobile banking app they used. Approximately 35% of those surveyed admitted to using the FBC mobile banking application. 24% of the respondents indicated using Kingdom ZIPIT. It's noteworthy that only 12% of respondents claimed to use the Fbc Internet Banking web platform.

According to (Reed, 2022), Numerous financial organizations have done a good job of adjusting to the mobile-first world. Via mobile apps, customers can simply complete typical banking tasks, check their accounts, and even apply for loans. According to Insider Intelligence's Mobile Banking Competitive Advantage Survey, 89% of respondents utilize mobile banking, and Bank of America alone has over 30 million users.

4.3 Perceived Risk of Internet and Mobile Banking

The risk associated with these two ICT-based banking products was another crucial factor that the study examined.

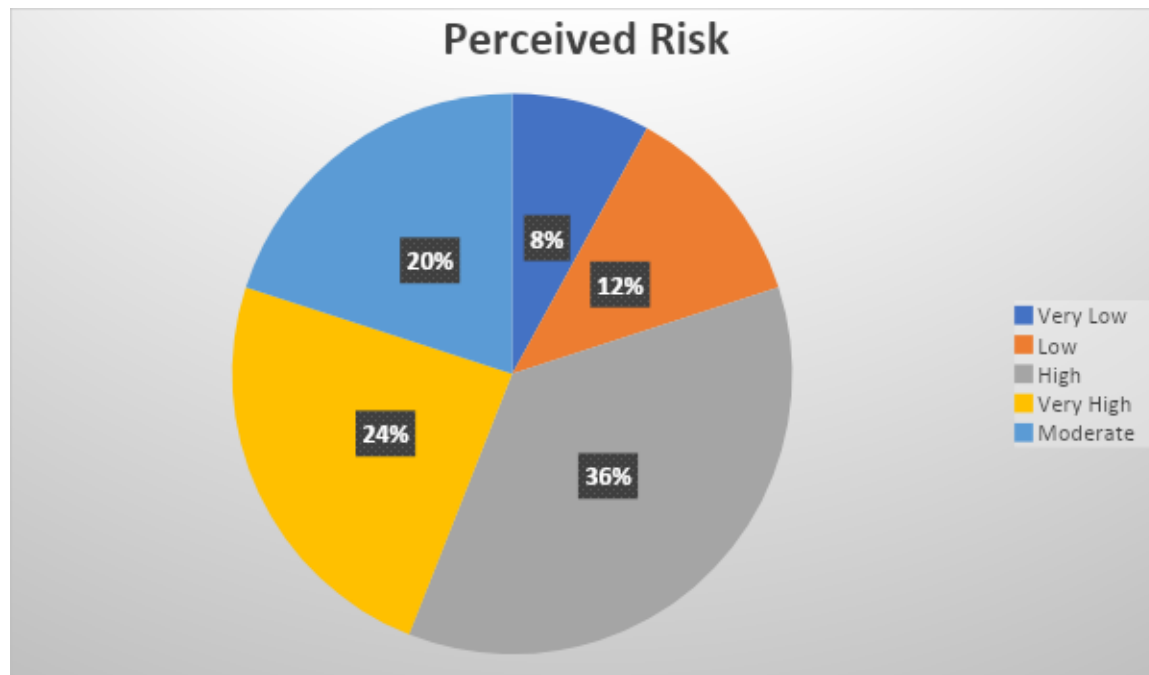


Figure 6 Perceived risk of internet and mobile banking

A total of 60% of respondents said there is a high level of risk involved with online and mobile banking, while only 20% disagreed. A sizeable 20% of respondents claimed that the risk is moderate, which means that it is at levels that are acceptable.

The advantages of e-banking are clear, but on the other hand, the risks are thought to be relatively considerable. This sort of banking has not exactly been trusted since its inception, as is generally acknowledged on the global stage. When it comes to financial matters, users have trouble placing their total trust in automated solutions. Given the small size of mobile devices, a

small error like tapping the wrong button could have serious consequences. and as a result, some clients are a bit skeptical because of that.

However according to (Reed, 2022) The survey' findings of a research he did indicated that out of all 13 industries, banking and finance mobile apps are among the least secure. 61% of the 726 banking and finance mobile applications had leaks of personally identifiable information, and 99% of them have security vulnerabilities that fail the OWASP MASV. During 2021 and 2022, this category's risk score decreased by 11%, with an average score of 66. (D)

4.3.1 Risk factors associated with Internet and Mobile Banking

The study looked into the variables that affect the danger of online and mobile banking. Figure 7 displays the study's findings.

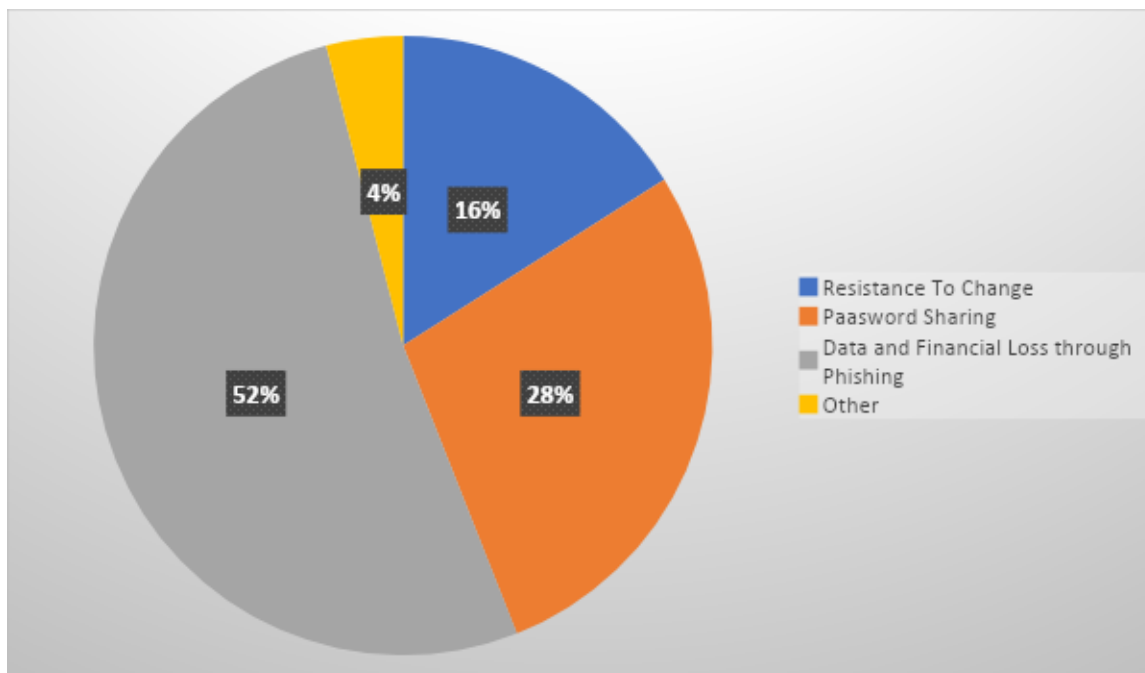


Figure 7 Dangers of Online Banking.

Phishing is one of the risk factors linked with online and mobile banking that is far up there at 52%. At 28%, password is also significant. The remaining risk factors are viewed as minor, Resistance to change, which is at 16%.

Phishing is the practice of attempting to get potentially sensitive information through the use of email, instant chats, telephones, phony websites, and social networking platforms (Pavlou, 2003). These typical e-banking issues cause unauthorized and illegal activities to be carried out, which ultimately tarnishes a bank's brand and image. Mobile and internet banking have given national authorities new problems to deal with as they struggle to oversee and control the financial system in order to develop and implement workable macroeconomic policies. The Business Software Alliance, a nonprofit that monitors software piracy, gave Zimbabwe a high-rating for software piracy and found that 87% of the software used there is illegal. The e-banking revolution heavily depends on this component, which is a very important issue in the ICT sector (Johnson, 2008)

4.3.2 Practical Risk Solutions

For the identified risks, practical solutions to mitigate them were also identified in the study.

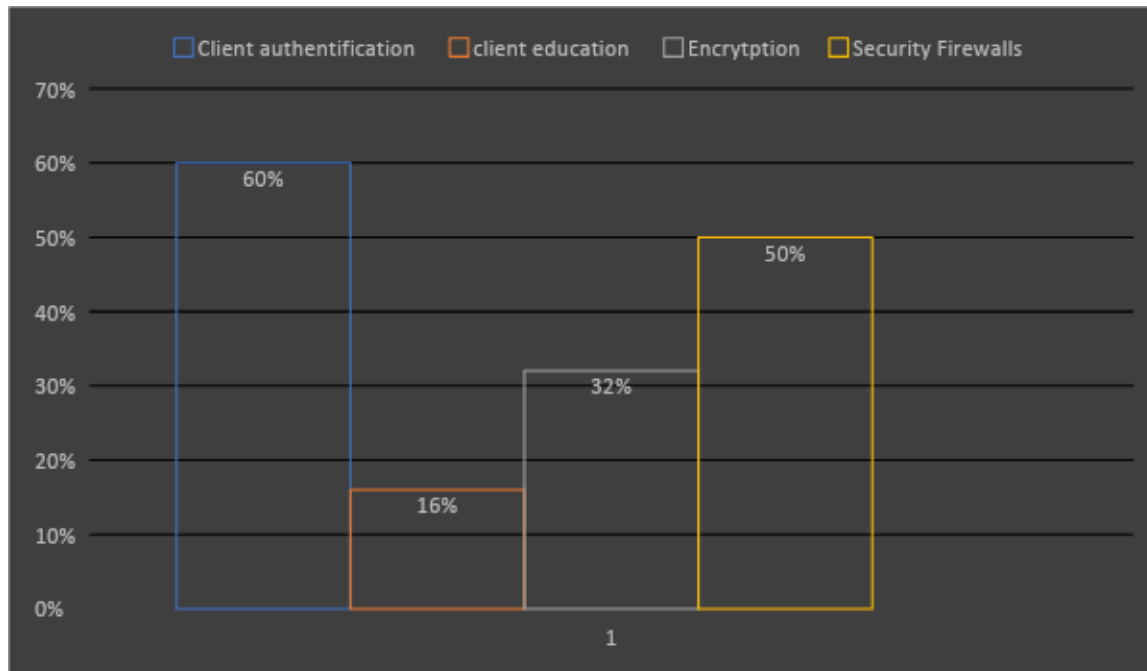


Figure 8 solutions to risks of e-banking

With 58% and 55%, respectively, client authentication and client education stand out as the two most significant risk solutions. Encryption and the use of security firewalls are two other methods that people like. 15% of the respondents selected digital certificates as a strategy for minimizing the hazards.

Because maintaining data privacy is essential to FBC Bank sustainability goals, the bank must make sure that customer data and transactional information are secure. Making sure that only authorized clients have access to the data will help you achieve this. Customer education is necessary to support the security measures in place, and FBC Bank can aid its customers by using alternatives like online banking lessons. Most losses happen when customers break straightforward but important guidelines like sharing passwords or leaving computers and mobile devices unlocked. Any loss of information regarding customer password or pin number and banking activities can allow computer hackers to obtain access to clients' bank accounts.

Encryption and security firewalls are becoming more and more common. It makes sense why digital certificates are still ranked low because they are a relatively new method that is yet not fully understood. Having different tiers of security in their systems will give FBC Bank clients more trust, which is beneficial for business continuity.

4.4 Challenges Facing Consumers' Adoption of Internet and Mobile banking

The obstacles to internet and mobile banking users' financial inclusion are covered in this section. On the cost of accessing mobile banking services, the cost of transactions and other related costs associated with using mobile banking services, the security of mobile banking services access, education and knowledge regarding mobile banking services, the effectiveness of mobile banking services, and the range of services provided through mobile banking were all topics that were asked about in the survey. Each of these factors is covered.

4.4.1 Cost of Accessing Mobile Banking Services

Figure 9 Distribution of Respondents by Perception of Affordability of Set up Costs for Accessing Mobile Banking Services

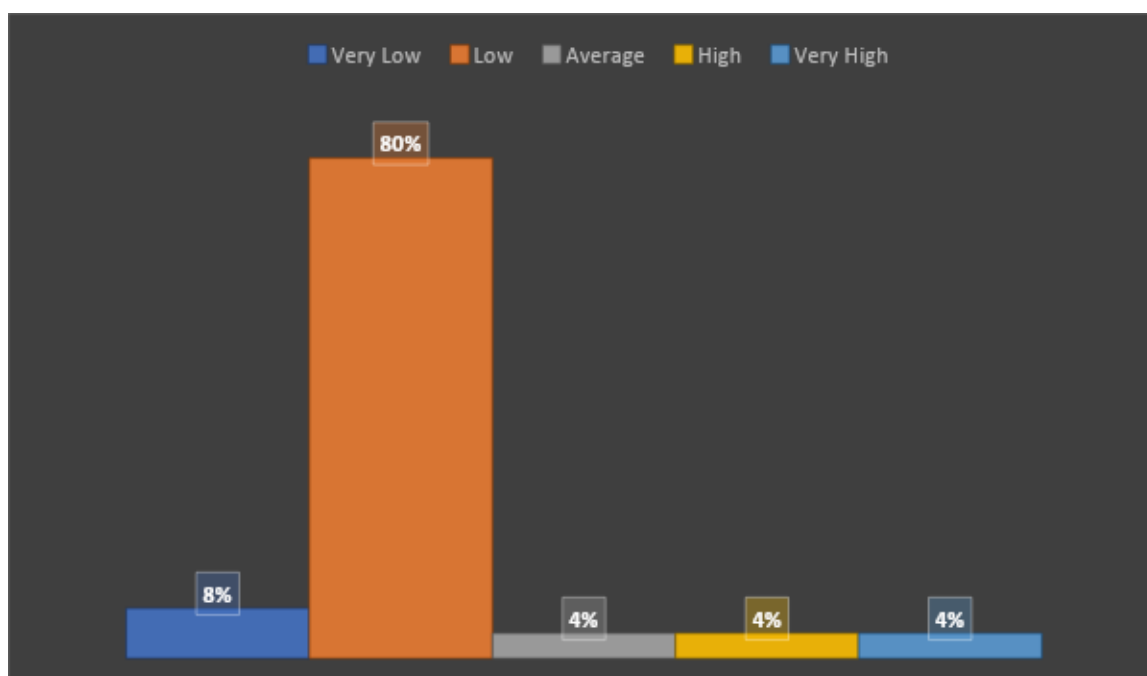


Figure 9 Affordability of Mobile and Internet Banking

Respondents to the survey were questioned about the upfront setup fees or the fees for using mobile banking services. The charges in issue covered both the price of connecting to mobile banking services as well as the cost of the actual gear, which was a mobile phone.

When it came to initial setup fees, a sizable number of respondents—74%—said that using mobile banking services was less expensive than using traditional banking channels. Twenty percent of the respondents said that compared to official and informal banking channels, the setup expenses for mobile banking services were excessive. Just 6% of individuals surveyed said that the setup fees for mobile banking services were somewhat comparable to those for regular banking channels (see Figure 4.8).

The findings show that users believe mobile banking setup expenses to be more reasonable than those associated with traditional banking channels. This may be because, previous to the launch of mobile banking services, the majority of clients already owned mobile phone connectivity

devices. The study's conclusions are consistent with those made by Omwansa (2009), who noted that using mobile payment technologies to send money had lower transaction costs than using banks or money transfer services.

4.4.2 Security of Mobile Banking Services

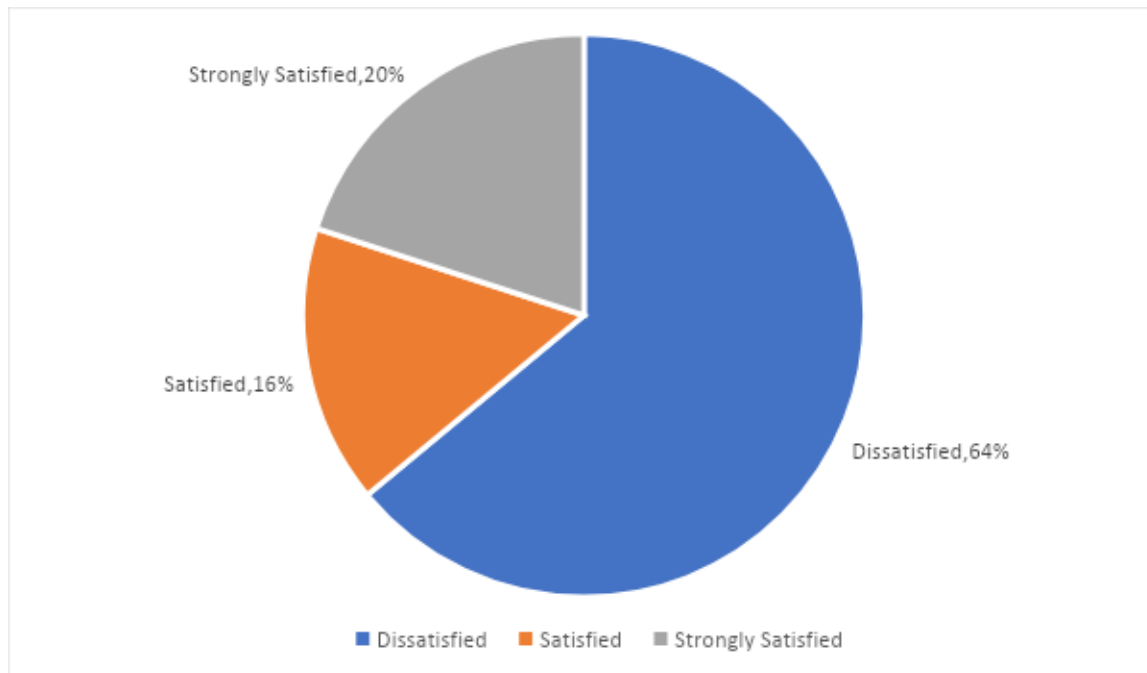


Figure 10 Percentage Distribution of Respondents by Extent of Satisfaction with Security of Mobile Banking Services.

Survey participants were questioned about how satisfied they were with the security of mobile banking services. Seventy-nine percent of respondents (see Figure 10) said they were dissatisfied with the security of mobile banking services, while just 7% and 14% of respondents said they were satisfied with it (strongly satisfied and satisfied respectively).

4.4.3 Concern about Aspects of Security

Figure 11 Concerns about Aspects of Security of Mobile Banking Services:

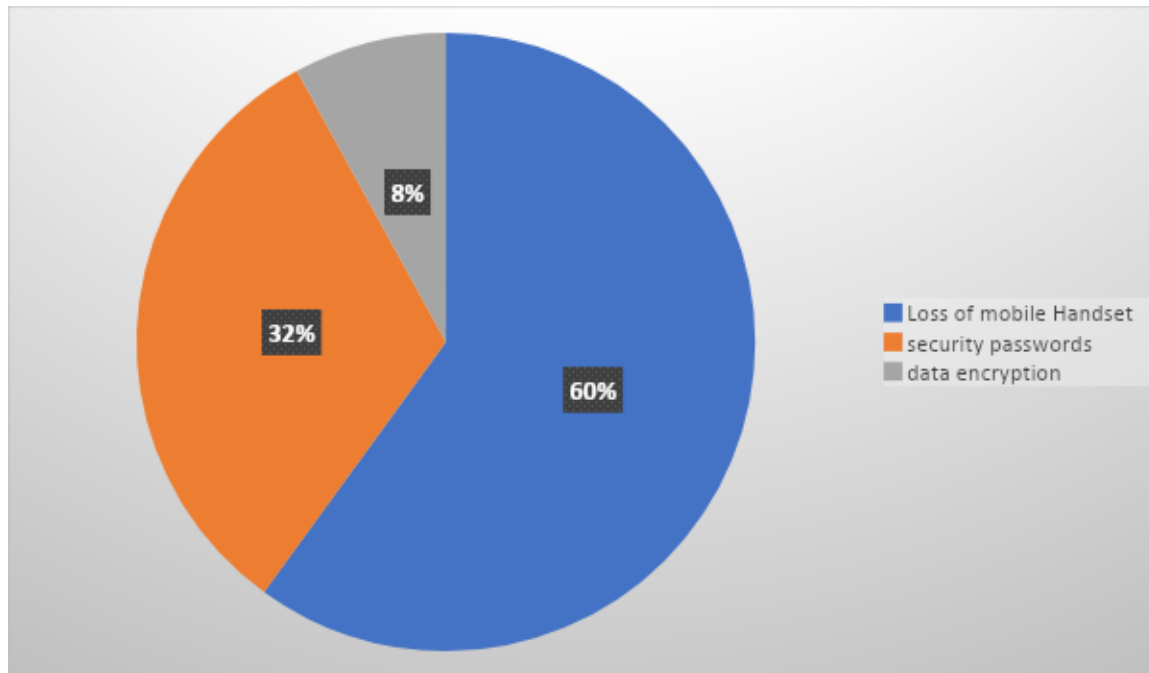


Figure 11 Security of Mobile Banking Services

The top security issues clients had with mobile banking services, according to survey respondents, were the loss of a mobile device and security passwords. Customers of mobile banking were also concerned about the encryption of the data on their mobile devices. Figure 4.8 below demonstrates this. Data from statistical analyses on obstacles to adopting mobile banking services will be presented in the following section.

4.5 Barriers in using Mobile Banking Services

	Security Concern	Network difficulty	Difficulty in handling mobile phone	Insufficient operating instructions	Cost per Transaction
N	25	25	25	25	25

Mean	4.14	3.98	1.18	3.87	2.51
z-value	2.437	3.21	2.157	2.863	2.030

Table 3 Barriers in Using Mobile Banking

The second research goal was to find obstacles that prevent users of mobile banking from being financially included. The Z test summary for mobile banking barriers against security issues, network issues, inadequate operating instructions, cost per transaction, and handling mobile phones is shown in Table 3.

4.5.1 Security Concern

With a mean value of 4.14, the Z value for "security concern" (2.44) was significant at.01. According to the outcome, using mobile banking is significantly hampered by "security concerns." The findings show that banks have not given secure mobile banking services to their clients much thought or effort. Consumers need to be assured that using their mobile devices for banking transactions is secure. The study's findings corroborate Sharma and Singh's (2012) views, according to which security concerns with mobile banking services are a major impediment to users' adoption and use of these services.

4.5.2 Network problem

Network problem's Z value of (3.21) was significant at.01 and had a mean value of 3.98. The conclusion suggests that "network difficulty" is a major obstacle to implementing mobile banking. The battle over calling rates among telecom network providers, which frequently results in network congestion, could be to blame for network issues.

4.5.3 Difficulty in handling mobile phone

Z value of (2.16), with mean value of 1.18 (3; Disagree), was found to be significant at .01 for "difficulty in handling mobile phone." As youth now make up the majority of the population in Zimbabwe and it has been discovered that youths are tech-friendly, it could be argued that "difficulty in handling mobile phone" is not a significant barrier to using mobile banking. Therefore, banks can increase their customer base through the mobile banking channel by focusing on this point, namely that it is simple to conduct banking through a mobile phone.

4.5.2 Insufficient operating Instructions

With a mean score of 3.87 (>3; Agree), the Z value for "insufficient operating instructions" (2.86) was judged to be significant at .01. One could argue that "insufficient operational guidance" is a major obstacle to utilizing mobile banking. To address this, banks must provide help desks for mobile banking in each branch and promote assistance through a variety of media, including the newspaper, internet, and television. The study's conclusions support those made by Leeladhar (2005), who noted that product awareness campaigns, management of financial services, insurance, and savings are necessary for banks and mobile network operators to implement in order to achieve financial inclusion.

4.5.3 Cost per Transaction

With a mean value of 2.51 (3; Disagree), the Z value for "cost per transaction" (2.03) was judged to be significant at .01. It might be argued that the "cost per transaction" is not a major deterrent to utilizing mobile banking because it is very inexpensive for customers to utilize mobile banking due to banks' generally low fees.

4.6 The impact of mobile banking on financial inclusion

The study utilized a number of measures, including savings and insurance coverage, to assess how mobile banking affected financial inclusion. The extent to which respondents were familiar with the loan services provided by mobile banks, the impact of mobile banking on payment, transfer, and withdrawal transactions, access to credit or lending facilities, the impact of mobile banking on savings, and the impact of mobile banking on access to insurance protection were all questions that were posed to the respondents. Sections 4.3.1 through 4.3.6 provide a summary of the investigation's results.

4.6.2 Extent of Familiarity with Mobile Banking Loan Services

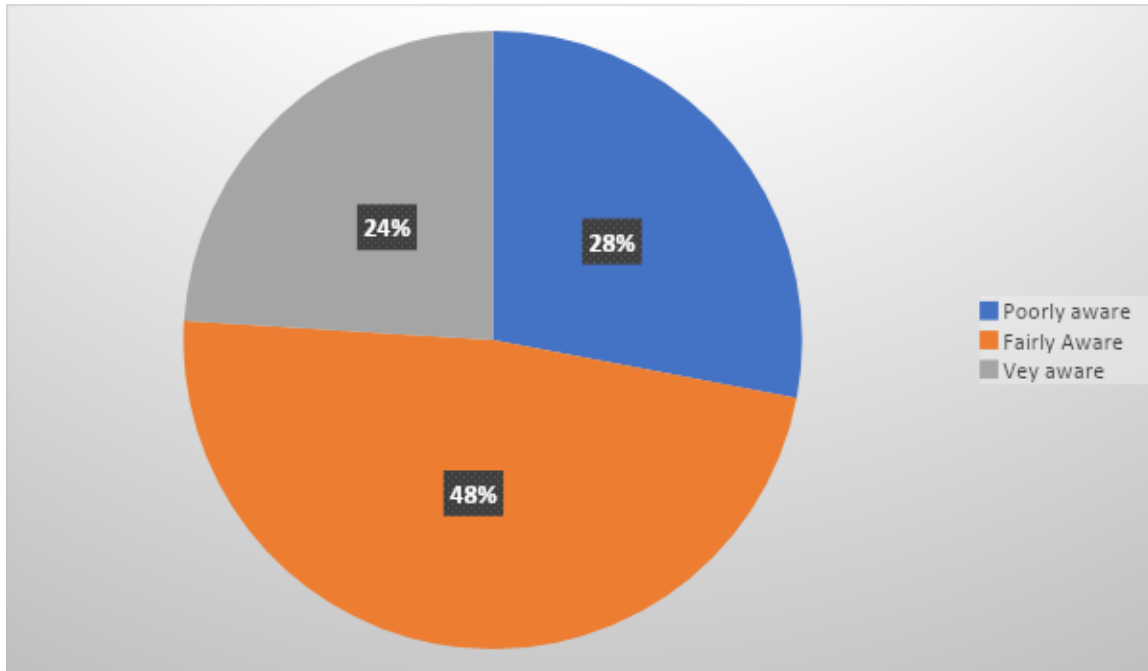


Figure 12 Level of Familiarity of Loan Services

The familiarity of survey participants with mobile banking loan services was questioned 24 percent of the respondents reported having a higher level of general knowledge about using and accessing mobile banking services. 48 percent of the respondents said they were generally aware of the availability and use of mobile banking services. Yet, a total of 24% of the respondents lacked knowledge about how to access and use mobile banking services (Figure 12).

The findings show that, in general, the public in Zimbabwe has been made aware of the use, accessibility, and advantages of mobile banking loan services.

4.5.6 Utility of Mobile banking services

MOBILE BANKING SERVICE	CUMULATIVE
	PERCENT (%)

Checking account balances	88
Mini statements	62
Status of cheque payments	46
Account activity	39

Table 4 Percentage distribution of respondents by perception of Utility of Mobile Banking Services.

Consumers were questioned regarding how valuable or significant they believed various mobile banking services to be. A list of mobile banking services was given to the respondents, and they were then questioned about the value they assigned to each service. Checking account balances (88%), mini-statements (66%), check payment status (44%) and account activity (40%), were the mobile banking services that were thought to be most useful. According to the findings, clients favor information-based services over bank-provided financial services.

4.6 Recommended strategies by respondents

On a 5-point Likert scale, responses to the question about strategies that can be used to ensure a good impact of mobile banking services on financial inclusion ranged from Strongly Disagree to Slightly Disagree to Neutral to Somewhat Agree to Definitely Agree. The outcomes are shown in the table below.

The majority of respondents concurred that the most popular strategies for enabling mobile banking services to have a positive impact on financial inclusion include improving the security of mobile banking devices, improving customer access to and extension of loans, and improving telecommunication networks (See Table 5). Yet according to survey participants, lowering

transaction costs was not a key tactic to permit a favorable impact of mobile banking services on financial.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	1	2	3	4	5
Improving the security of mobile banking devices	-	-	-	40%	60%
Improvement in the provision of loans by banks				46%	54%
Improving telecommunication networks			-	52%	48%
Reduce transaction costs		52%	48%		

Table 5 Percentage Distribution of Respondents by Perception of strategies which can be adopted in order to strengthen corporate governance practices in commercial banks

4.6 Chapter Summary

The study findings were the main focus of the chapter, therefore data gathered from employees, clients, were analyzed and discussed. In the first section, we briefly discussed respondent profiling and response rate. Before moving on to the crucial elements pertinent to the study aims, it first concentrated on the users of internet and mobile banking. They discussed the adoption and execution of internet and mobile banking, as well as the difficulties, dangers, advantages, and business models. The considerations were given additional weight by the inclusion of financial

data. The recommendations and conclusions of the findings covered in this chapter are provided in the following chapter.

Chapter Five: Conclusions and Recommendations

5.1 Introduction

This chapter summarizes the study's findings with regard to the obstacles that mobile banking users must overcome in order to access financial inclusion, the impact of mobile banking on financial inclusion, and the strategies that can be used to enable a favorable impact of mobile banking services on financial inclusion. The chapter concludes with conclusions and suggestions for further research.

5.2 Discussions

The financial inclusion of customers through mobile banking is hampered by a number of problems. Inadequate operating instructions, security issues, and network issues are a few of these difficulties. Concern over the patchy network coverage that they frequently encountered when using their mobile phones to do business was a recurring theme among survey respondents. The financial inclusion of users of mobile banking services was shown to be significantly hampered by network issues.

According to data, 79% of those surveyed voiced displeasure with the security of mobile banking services. More specifically, statistical analyses in the form of the Z test found that customers had security concerns regarding the use of mobile banking services. The study's conclusions show that customers' top security worries were lost mobile devices and forgotten security passwords. According to survey results, users' top security worries when using mobile banking services

were the loss of their mobile phones and their security passwords. Also, the study's findings suggest that mobile banking services benefited financial inclusion. Throughout time, mobile banking services increased client savings and increased the speed, convenience, and effectiveness of financial transactions. Nevertheless, using mobile banking services did not lead to better access to credit facilities.

The findings on potential techniques for enabling a favorable impact of mobile banking services on financial inclusion were rather diverse. Participants in the study concurred that the most popular strategies for enabling a positive impact of mobile banking services on financial inclusion include improving the security of mobile banking devices, improving customer access to and extension of loans, and improving telecommunication networks.

5.3 Conclusions

In conclusion, the use of mobile banking services increased financial inclusion in a statistically meaningful way. Poor network coverage, difficulty obtaining loans or credit, and security issues with mobile banking services are examples of barriers to financial inclusion. The study emphasized how crucial it is to raise public knowledge of the security of mobile banking.

Also, even if the majority of the study's conclusions corroborate those of earlier studies in the area, important new information has also emerged. The key difficulties for users of mobile banking services continue to be network connectivity and awareness of how to utilize and access those services.

5.4 Recommendations

The study's findings were used to generate the suggestions that are listed below. Thus, it is essential that the right intervention strategies are put in place to allow mobile banking services to have a positive impact on the adoption of internet and mobile banking. Banks should raise awareness that mobile banking platforms are just as secure as conventional banking channels in order to reduce barriers to financial inclusion for customers who use mobile banking.

There were certain restrictions on this study, particularly in terms of the technique used. Studies that combine quantitative, qualitative, and triangulated research approaches are necessary. This research will make it possible to better understand the underlying causes of obstacles to financial inclusion as well as the connection between the causes and effects of mobile banking services on financial inclusion.

5.5 Suggestions for Further Research

Risk eradication and management in online and mobile banking in underdeveloped nations is an intriguing subject for future research. Furthermore, Zimbabwe's adoption of 100% online banking institutions (virtual banks) can be quite instructive.

References

- Akturan, U. a. (2012). Mobile banking adoption of the youth market: Perceptions and Intentions. *Journal of Marketing Intelligence and Planning*. Volume 30, 444-459.
- Al- Sukkar, A. &. (2005). Toward a Model for The Acceptance of Internet Banking in Developing Countries. *Information Technology for Development*, 381- 398.
- Aladwani, A. (2001). Online Banking: A Field Study of Drivers, Development Challenges, and Expectations. *International Journal of Information Management*, 213–225.
- Aldas-Manzano, J., Lassala-Navarre, C., & Ruiz-Mafe, C. a.-B. (2012). The role of consumer innovativeness and perceived risk in online banking usage. *International Journal of Bank Marketing Volume 27*, 53-60.
- Ali, Y. S. (2014). Factors influencing mobile money transfer adoption among Somali students. *International Journal of Business, Economics and Law*, 180-188.
- Al-Sukkar, A. &. (2005). ‘Towards a Model for the Acceptance of Internet Banking in Developing countries. *Journal of Information Technology for Development*, 380-385.
- Apte, U. &. (2008). Operations in the Service Industry. *Production Operations Management*, 235-237.
- Bhasin, N. (2007). *Banking and financial markets in India, 1947 to 2007*. New Century Publications. Delhi.
- Bradley, L. a. (2002). A Delphi study of the drivers and inhibitors of internet banking. *International Journal of Bank Marketing*, 250 – 260.
- Bryman, A. B. (2007). *Business research methods, (2nd ed.)*. Oxford University Press.

- Chamisa. (2011). Ministry of Information Communication Technology Reports.
- Chang, Y. T. (2008). Dynamics of Banking Technology Adoption: An Application to Internet Banking, [Workshop Presentation],. *University of Warwick*. Coventry, UK: Department of Economics.
- Chen, C. (2013). Perceived risk, usage frequency of mobile banking services. *Managing Service Quality: An International Journal*, 410-436.
- Claessens, S. a. (2013). Competition in the financial sector and growth. *A cross-country perspective accessed on <http://www.eufinancial-system.org>*.
- Claessens, S. G. (2002). Electronic Finance: Reshaping the Financial Landscape Around the World. *Journal of Financial Services Research*, 22-28.
- Clarke, M. S. (2009). IGI global. *E-Banking Management: Issues, Solutions, and Strategies*, Information Science Reference.
- Comminos, E. S. (2008). Towards evidence-based. <http://externo.casafrika.es/aeo/>.
- Curran, J. M. (2005). Intentions to use Self-Service Technologies: A confluence of multiple attitudes. *European Journal of Marketing*, 209-220.
- Davis, a. e. (1989). Perceived Usefulness, Perceived ease of use and user acceptance of information technology. *Management Information Systems*, 319-340.
- Davis, F. D. (1989). *Perceived usefulness, perceived ease of use, and user acceptance of information technology*. MIS Quarterly: doi:10.2307/249008.
- Dawson, C. (2002). *Practical Research Methods*. UBSA: New Dehli.
- DeVaus, D. (2001). *Research Design in Social Research*. CA: Prentice.
- Diniz, E. A. (2011). *Mobile Money and Payment: a literature review based on academic and practitioner-oriented publications (2001-2011)*.

- Dube T, C. T. (2008). Adoption and use of internet banking in Zimbabwe. *Journal of Internet Banking and Commerce*, 21-26.
- Dzama, T. a. (2013). E-Commerce Adoption In Banking Sector In Zimbabwe .Case of Commercial Bank of Zimbabwe (CBZ). *International Journal of Applied Research And Studies (iJARS)*.
- Fischer, C. (2010). Researching and writing a dissertation. *An Essential Guide for Business Students. Third Edition*.
- Gates. (2008). Microsoft Annual Report.
<http://www.microsoft.com/en-us/news/exec/billg/speeches/2008/06-03teched.aspx>.
- Goi, C. L. (2005). E-banking in Malaysia: Opportunities and challenges. *Journal of Internet Banking and Commerce*, 51-69.
- Greener, S. (2008). *Business research methods*. Dr. Sue Greener & Ventus Publishing.
- Hannan, T. H. (2008). The Determinants of Technology Adoption: The Case of the Banking Firm. *The Rand Journal of Economics*, 328-335.
- Hasan, A. S. (2005). Toward a Model for The Acceptance of Internet Banking in Developing Countries. *Information Technology for Development*, 381- 398.
- Jayawardhena, C. &. (2000). Changes in the banking sector-the case of internet banking in the UK. *Internet Research: Electronic Networking Applications and Policy*, 19-30.
- Johnson, M. (2008). A new approach to Internet banking. *UCAM-CL-TR-731ISSN 1476-2986 Computer Laboratory*.
- Kamel, S. (2005). The use of Information Technology to Transform the Banking sector. *Information Technology for Development*, 305-312.
- Kerem, K. (2003). Internet Banking in Estonia. *PRAXIS Center for Policy Studies*.

- Kotler, P. (2002). *Marketing Management. Millennium Edition*. Pearson Custom Publishing.
- Liao, Z. a. (2002). Service quality in Internet e-banking: A user-based core framework. *Paper presented at IEEE International Conference on e-Technology, eCommerce and e-Service (IEEE 05)*, 629-630.
- Mangwendeza, C. L. (2012). Financial inclusion by Zimbabwean commercial banks in a liquidity constrained environment. *Journal of Economics and International Finance Vol. 4*.
- Mangwendeza, C. L. (n.d.). Financial inclusion by Zimbabwean commercial banks in a liquidity constrained environment;. *Journal of Economics and International Finance Vol. 4*, 2012.
- Mensah, A. O. (2011). E-commerce challenges in Africa: Issues, constraints, opportunities. *Economic Commission for Africa*.
- Nath, R. S. (2001). Bankers Perspectives on Internet Banking. *E-Service Journal*.
- Ndlovu, I. &. (2013). Benefits and Risks of E-Banking: Case of Commercial Banking In Zimbabwe. *The International Journal Of Engineering And Science*, 34-40.
- Ngango, M. A. (2015). Electronic banking and financial performance of commercial banks in Rwanda: a case study of bank of Kigali. *Unpublished Banking Report* .
- Njanike. (2010). The Impact of Globalisation on Banking Service Quality in Zimbabwe. *Annals of the University of Petroşani, Economics*,, 205-216.
- O'Connell, B. &. (1996). *Australian banking on the Internet: fact or fiction*. Melbourne: Australian Banker.
- Pagano, M. (2012). *Finance: Economic Lifeblood or Toxin? 15th Annual International Banking Conference*. Federal Reserve Bank of Chicago.

- Pavlou, P. A. (2003). Consumer Acceptance of Electronic Commerce Integrating Trust and Risk with the Technology Acceptance Model. *International Journal of Electronic Commerce*. Volume 7, 69-103.
- Porter, M. E. (1990). The Competitive Advantage of Nations. *Harvard business Review*. March-April.
- Research, F. (2008). *Best of Europe's Net Banking*.
- Riquelme, H. E. (2012). The moderating effect of gender in the adoption of mobile banking. *International Journal of Bank Marketing* Volume 28, 320-325.
- Rogers, E. (2003). *Diffusion of Innovations*. Fifth Edition. New York: Free Press.
- Rogers, E. M. (1971). Communication of Innovations. *A Cross-Cultural Approach*.
- Rogers, E. M. (1995). *Diffusion of innovations (4th ed.)*. New York, NY: The Free Press.
- S, K. (2005). Information Technology for Development,. *The use of Information Technology to Transform the Banking sector*, 305-312.
- Sathye, M. (2009). Adoption of Internet Banking by Australian Consumers: An Empirical Investigation. *International Journal of Bank Marketing*, 320-323.
- Saunders, M. L. (2007). *Research Methods for Business Students (4th Edition)*. New York: Prentice Hall.
- Shah, M. &. (2009). *E-Banking Management: Issues, Solutions and Strategies*. United Kingdom: IGI Global.
- Sohai, M. &. (2004). Ebanking and customers preferences in Malaysia: an empirical investigation. *Information sciences, Informatics and Computer Science: an international journal*, 2-14.
- Stewart, D. W. (2000). Internet marketing, business models, and public policy. *Journal of Public Policy & Marketing*, 287-296.

- Sullivan, R. &. (2005). Internet Banking: An exploration in Technology Diffusion and Impact. *Payments Systems Research Diffusion and Impact*.
- Tan, M. &. (2007). Factors influencing the adoption of Internet Banking. *Journal of the Association for Information Systems*, 234-256.
- Thompson, E. R. (2003). A grounded approach to identifying national competitive advantage: A preliminary exploration. *Environment and Planning A*, 631-657.
- Tiwari, R. a. (20007). *The Mobile Commerce Prospects: A Strategic Analysis of Opportunities in the Banking Sector*. Hamburg: Hamburg University Press.
- Tobbin, P. (2012). Towards a model of adoption in mobile banking by the unbanked: A qualitative study. *The Journal of Policy, Regulation and Strategy for Telecommunication, Information, and Media*, 14, 74-88.
- W, G. (2008). Microsoft Annual Report.
<http://www.microsoft.com/en-us/news/exec/billg/speeches/2008/06-03teched.aspx>.
- Xue, M. H. (2007). Customer Efficiency, Channel Usage and Firm performance in Retail Banking. *Manufacturing and Service Operations Management*, 535-585.
- Zhou, T. (2011). An empirical examination of initial trust in mobile banking. *Journal of Internet Research. Volume 21.*, 530-535.

Appendices

Appendix 1: Interview questions

- How would you characterize your relationship with FBC Bank?
- How would you sum up the bank's customer service?
- How can FBC Bank improve your banking experience?
- How often do you feel the need to use banking services after hours?
- Are you familiar with the words online and mobile banking?
- What advantages might online and mobile banking provide to you?

- Do you feel at ease with the thought of using online and mobile banking?
- What hazards do you think this type of banking entails?
- How can the risks be managed to your satisfaction?
- Would you use a bank that was only online? Why?

Appendix 2: Questionnaire

AFRICA UNIVERSITY

**COLLEGE OF BUSINESS, PEACE, LEADERSHIP AND
GOVERNANCE**



The adoption of mobile banking and internet banking by Southerton residents: Case study of

FBC Bank

My name is Tafadzwa Magadu, a fourth year student at Africa University Majoring in Computer Information Systems (Honors) .I am carrying out a case study analysing adoption of mobile banking and internet banking by Southerton residents ..

Notes

- Please answer all questions honestly and return the questionnaire.
- Participation is strictly voluntary
- Confidentiality is assured and please do not write your name

Thank you for setting aside time to assist me in my educational endeavours. Completion and return of the Questionnaire will be very much appreciated.

Section A: Demographic information

1. Age :.....

2. Employment Status....

3.

4. Highest level of education

1. Primary school ☐

2. Secondary School ☐

3. Diploma ☐

4. Undergraduate degree ☐

5. Postgraduate degree ☐

Section B: Adoption and benefits

5. What do you understand by

5a. Internet banking

.....

.....

.....

.....

.....

5b. Mobile banking

.....

.....

.....

.....

.....

6. How crucial is it for the bank to adopt internet and mobile banking?

1 Not at all critical 2 Not critical 3 Moderate 4 Critical 5 Very critical

7. Mark the box next to each advantage of using online and mobile banking that you think is best.

	<i>Low</i>	<i>Average</i>	<i>Major</i>
Convenience to customers	1	2	3
Cost effective channel	1	2	3
Operational efficiency	1	2	3
Decongestion of banking halls	1	2	3
Financial inclusion to the poor and remote	1	2	3
International financial inclusion	1	2	3

Better branding & responsiveness to the market	1	2	3
Attracts high value customers	1	2	3
Other (Please specify).....	1	2	3

8. Circle the critical success factor(s) of implementing these two ADC.

2. Competent human skill

3. Capital

4. Change management

5. Other (Please Specify) :

9. Rank the factors that influence their adoption by banks (*1=lowest; 4=highest*)

Organizational structure []

Size of business []

Number of previous adopters []

Entry of new competition []

10. Rank in order of importance the following enablers of concepts in e-banking adoption.

(1= lowest; 4= highest)

Perceived relative advantage [] Perceived organisational performance []

] Perceived customer/organisational relationship []

Perceived ease of use []

11. Circle the most important criteria in choosing a internet & mobile banking service provider

1. Reputation of the bank

2. Variety of services offered
3. Familiarity with the bank
4. Size of the bank

Section C: Associated challenges and risks

9. Rank the top four challenges in order of importance. (*1 = lowest; 4 = highest*)

Funding	[]
Unstable economic and political environment	[]
Poor infrastructure	[]
Poor customer uptake/demand	[]
Incompatible systems	[]
Project too complex	[]
Incompetent staff	[]
Physical-geographical inaccessibility	[]
Financial and technological illiteracy	[]
Risk and network security	[]

10. Suggest practical solutions to the constraints identified in question 15.

.....

.....

.....

11. Rate risk perceived with internet and mobile banking.

1 Very low 2 Low 3 Moderate 4 High 5 Very high

12. Indicate the most critical risk factor(s) associated with internet and mobile banking.

- 1 Data loss and financial loss through phishing
- 2 Password sharing
- 3 Resistance to change
- 4 Dis-integration from rest of business systems

Other (Please specify)

.....

.....

.....

.....

.....

13. What is the ideal solution(s) for the risk?

- 1 Client Authentication
- 2 Digital certificates
- 3 Encryption
- 4 Security firewalls
- 5 Client education
- 6 Other (Please Specify)

.....

.....

.....

Appendix: 3 Consent Form

INFORMED CONSENT FORM

My name is Tafadzwa Magadu , a final year (Computer Information Systems) student from AU. I am carrying out a study on the adoption of internet and mobile banking by Southerton residence : case study of FBC Bank. I am kindly asking you to participate in this study by filling in a questionnaire.

WHAT YOU SHOULD KNOW ABOUT THE STUDY:

Purpose of the study:

The purpose of the study is to study the adoption of internet and mobile banking in Southerton area located in Harare. You were selected for the study because your area of work has a lot of people who have adopted mobile and internet banking .29 other residence will also be requested to participate in this research study.

Procedures and duration

If you decide to participate you will answer a couple of interview questions pertaining to the study. It is expected that this will take approximately 10 minutes.

Risks and discomforts

For the purpose of confidentiality and privacy information collected will be used strictly for research purposes and will not be disclosed to any third parties.

Benefits and/or compensation

The research will allow for students and other concerned organizations to use this as a reference point as well as recommend measures to improve data and cyber security strategies.

Confidentiality

The information collected will not be disclosed in such a way that can be identified with the participant. No names will be revealed to avoid identification of participants as the study has no need for personal names.

Voluntary participation

Participation in this study is voluntary. If participants decide not to participate in this study, their decision will not affect their future relationship with FBC Bank. If they chose to participate, they are free to withdraw their consent and to discontinue participation without penalty.

Offer to answer questions

Before you sign this form, please ask any questions on any aspect of this study that is unclear to you. You may take as much time as necessary to think it over.

Authorisation

If you have decided to participate in this study, please sign this form in the space provide below as an indication that you have read and understood the information provided above and have agreed to participate.

Name of Research Participant (please print)

Date

Signature of Research Participant or legally authorised representative

If you have any questions concerning this study or consent form beyond those answered by the researcher including questions about the research, your rights as a research participant, or if you feel that you have been treated unfairly and would like to talk to someone other than the researcher, please feel free to contact the Africa University Research Ethics Committee on telephone (020) 60075 or 60026 extension 1156 email aurec@africau.edu

Name of Researcher -----



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4 February 2023

To Whom It May Concern

Dear Sir/Madam,

Authority to carry out Research

This serves to advise that Tafadzwa Magadu is an undergraduate student at Africa University studying towards a degree in Computer Information Systems. He has been authorized to research on the title; "The adoption of Internet and mobile banking by Southerton residents: A Case Study of FBC Building Society."

Kindly assist him with the information required.

Yours faithfully,

Roy Nyakunwa
Head of Group Marketing, FBC Holdings

Directors: H. Nkala (Chairman), C. Mtasa (Deputy Chairperson), J. Mushayavanzu (Group Chief Executive), K. Chikatsani (Executive),
A. Chuma, G.S. Collins, F. Kennedy, T. Kufareine (Executive), D. Makwira, C. Malunga, R. Moyo, C. Msiya, S. Ndlovu, V. Nyemba, W. Rusere (Executive).



AFRICA UNIVERSITY RESEARCH ETHICS COMMITTEE (AUREC)

P.O. Box 1320 Mutare, Zimbabwe, Off Nyanga Road, Old Mutare-Tel (+263-20) 60075/60026/61611 Fax: (+263 20) 61785 website: www.africau.edu

Ref: AU2713/23

24 March, 2023

Tafadzwa Magadu
C/O Africa University
Box 1320
MUTARE

RE: The adoption of mobile banking and internet banking by Southerton residence :Case study of FBC Bank

Thank you for the above-titled proposal that you submitted to the Africa University Research Ethics Committee for review. Please be advised that AUREC has reviewed and approved your application to conduct the above research.

The approval is based on the following.

- a) Research proposal
 - **APPROVAL NUMBER** AUREC 2713/23
This number should be used on all correspondences, consent forms, and appropriate documents.
 - **AUREC MEETING DATE** NA
 - **APPROVAL DATE** March 24, 2023
 - **EXPIRATION DATE** March 24, 2024
 - **TYPE OF MEETING** Expedited
After the expiration date, this research may only continue upon renewal. For purposes of renewal, a progress report on a standard AUREC form should be submitted a month before the expiration date.
 - **SERIOUS ADVERSE EVENTS** All serious problems having to do with subject safety must be reported to AUREC within 3 working days on standard AUREC form.
 - **MODIFICATIONS** Prior AUREC approval is required before implementing any changes in the proposal (including changes in the consent documents)
 - **TERMINATION OF STUDY** Upon termination of the study a report has to be submitted to AUREC.



Yours Faithfully

MARY CHINZOU
ASSISTANT RESEARCH OFFICER: FOR CHAIRPERSON
AFRICA UNIVERSITY RESEARCH ETHICS COMMITTEE