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Analysing the impact of digital banking on the performance of Zimbabwean Banks. A survey of Harare CBD

BY

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APPROVAL FORM

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DEDICATION

This research project is dedicated to my beloved mother, better half, siblings, friends and the rest of my family. Their support, understanding and most of all love made the completion of this dissertation a possibility. May the Most High God bless you all.

ABSTRACT

The study sought to determine the impact of digital banking on the performance of Zimbabwean banks located in Harare. The study was guided by four specific objectives which were to establish the nature of digital banking, to determine the impact of digital banking on the performance of banks, to explore challenges associated with digital banking to the performance of banks and to recommend possible measures to curb the challenges posed by digital banking on the performance of banks in Harare. To achieve these objectives, the study adopted a pragmatism research philosophy and in line with this philosophy, the study also adopted a descriptive survey research design and a mixed methodology research approach in which both interviews and questionnaires were used for data collection from a target population of 52 respondents drawn from 13 commercial banks located in Harare. However, only 90.38% of the targeted population responded in time for data analysis. The study unveiled that the digital banking nature is diverse and includes mobile banking, internet banking, home banking, webpages, telephone banking, television banking and ATMs with the most common being mobile banking followed by internet banking, ATM and the least being home banking. In addition, the study also revealed that there is a positive and significant relationship between the extent of digital banking adoption and bank performance. According to the findings of the study, digital banking specifically enhances revenue generation, bank profitability, customer satisfaction, and customer retention and market share. It also improves efficiency, results in cost savings and creates cross-selling opportunities for commercial banks. Moreover, findings also revealed that banks face a lot of challenges relating to adoption and utilisation of digital banking and among these challenges were the lack of awareness of digital banking services, uncertainty about the benefits of digital banking, high set-up and development costs and legal, security and liability issues, poor and inadequate telecommunications infrastructure, limited knowledge of digital banking and internet, usage and availability, low credit card penetration, poor internet connectivity and lack of established telephone lines. The researcher therefore concluded that digital banking, in its diverse forms, plays a significant role in improving bank performance in various ways. However, there are challenges that banks face regarding its adoption and utilisation. The researcher therefore recommends banks to embrace more forms of digital banking and increase its penetration, develop user-friendly digital banking platforms and forge partnerships with telecommunications organisation to improve infrastructure and service delivery.

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LIST OF ABBREVIATIONS

ATM	Automated Teller Machine
AML	Anti-Money Laundering
BUPSML	Bank Use Promotion and Suppression Money Laundering
CBD	Central Business District
CBZ	Central Bank of Zimbabwe
CDD	Customer Due Diligence
FATF	Financial Action Task Force
KYC	Know Your Customer
POS	Point of Sale
ROA	Return on Assets
ROE	Return on Equity
RTGS	Real Time Gross Settlement ATMs
TAM	Technological Acceptance Model
TCI	Transactions Cost Innovation

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CHAPTER 1

INTRODUCTION

1.1 Background to the study

According to Khan (2021), digital banking has revolutionized the way banks provide services, enabling users to view transactions, download statements, and transact online without visiting a branch. Banks' distribution networks have benefited from technological advancements, and these electronic delivery channels are collectively referred to as electronic banking (Kombe and Wafula, 2015).According to a guideline BUP/SML:Anti-Money Laundering, Financial Institution is defined as any banking institution registered or required to be registered in terms of the Banking Act chapter 24. Digital Banking services, as defined by Wadesango and Magaya (2021), is the usage of the internet, mobile phones, and any other electronic mediums as a channel of delivery for banking services, which includes all the traditional services such as balance inquiry, statement printing, transfer of funds to other accounts, and bill payment, as well as new banking services such as electronic bill presentation and payment without having to physically visit a bank. According to Kahveci and Wolfs (2018), online banking, also known as vital banking, digital banking, or electronic banking, is characterized the using telecommunication networks and the internet to provide clients with a wide range of banking services and products via a website or a system operated by financial institutions. E-banking is there the delivering of banking services and products directly to customers using electronic means and communication networks (Rawwash, 2020). According to Sibanda (2014), digital banking is the digitization of all the traditional banking activities and programmes that were historically only available to customers when physically present in a bank branch, such as funds deposits, withdrawals as well as the transfers, checking/savings account management, bill payment, and account services.

According to El-Chaarani and El-Abiad (2018), digital banking aims to have a direct effect on profitability or asset return and for quality improvement of assets. In contrast, there are substantial indirect effects. Switbert and Baleche (2022) argue that online banking as well as other electronic banking services cut operational expenses for banks with physical overhead costs. Numerous research has examined the relationship between electronic banking and its impact on bank

performance. Surprisingly, investigations on this topic produced ambiguous results. Nonetheless, a positive correlation was found in several research (Bagudu., 2017; Aduda and Kingoo, 2012; Mehmood., 2015; Mazana., 2016; Akhisa, 2015). According to studies with positive findings, banks that provide extensive digital banking services generally perform better than those that lag (Mazana , 2016).

Globally, Hendrickson and Nicholas (2011) centered their research on the performance of small banks in the United States and discovered that banks operate more effectively when utilising digital banking. The primary reason according to the authors is that mobile banking provides a low-cost delivery channel for all stakeholders, leading to an increase in profit margin and market share.

In Europe, Stoica (2015) conducted a study to determine the impact of internet banking on the performance of Romanian banks and discovered that only a few banks have used internet banking services, however, those that utilised internet banking were more productive and relatively more efficient. Moreover, Rega (2017) also discovered a positive relationship result between bank profitability and digitalization in a study of 38 European banks. In addition, Akhisa(2015) discovered a positive association between technological innovation and the performance of banks in both developing and developed countries. El-Chaarani and El-Abiad (2018) also conducted a research study to determine the effect of technological innovation on the performance of Lebanese banks. The study used return on equity (ROE) and return on assets (ROA) as proxies for performance and technological innovation factors included internet banking, mobile banking, automated teller machines (ATMs), as well as investment in computer software. Their study revealed that the investment in ATMs and online banking has a favorable impact on performance, however, a non-significant impact was observed with regards to investment in computer software and mobile banking.

In Asia, a study conducted by Mehmood et al. (2015) in Pakistani banking sector demonstrated that electronic banking reduces operational expenses and, consequently, increases production and bank profits. According to Saleem and Rashid (2011), the 18-to-35-year-old generation of bankers will favour a bank with superior electronic banking offerings, such as mobile banking. The authors continued their reasoning by stating that for a bank to achieve a substantial market share in this demographic, it must embrace the most advanced form of digital banking. Al-Jabri (2012)

endorsed this school of thought by emphasising that the adoption of digital banking improves efficiency, customer service quality, business growth, and the cost of living for citizens

The findings in the developed world are also consistent with research conducted in Africa (Mazana et al., 2016), Nigeria (Bagudu et al, 2017), Zambia (Lusaya and Kalumba, 2018), and South Africa (Maduku, 2014), where findings revealed that banks which have embraced digital banking have enhanced their performance through increased productivity, cost savings, cross-selling opportunities, and efficiency, among other performance indicators.

Although digital banking offers numerous advantages, several researchers have discovered that its global acceptance is still in its infancy (Desta, 2016; Wadesango et al., 2017). Drehmann and Nikolaou (2013) added that the adoption of digital banking has yet to fulfil industry expectations. Sabi (2014) emphasised that customer acceptance of electronic banking is more decisive than seller offers for its adoption. There is not enough information available about the perception and evaluation of company performance. Corporate performance, according to Stephen and Sandeep (2015), is a composite evaluation of how well an organisation performs on its most significant characteristics, often financial, market, and shareholder performance.

However, another set of scholars disagreed with the notion that digital banking brought the much needed improvement in the banking sector performance. Among the scholars who subscribed to this notion are Shih, (2014), Mupfig (2013), Ngango (2015) and Maringe (2012). After conducting a financial inclusion study, Shih et al. (2014) discovered that financially excluded rural residents do require digital banking services. The author continues his argument by stating that mobile money providers can provide only basic financial services, such as receiving and sending money and conducting banking inquiries. Mobile money operators provide cheap services at a cheaper rate as long as one owns a mobile phone.

Due to the competition supplied by telecommunications firms, according to Maringe (2012), it is unreasonable for banks to bear the financial expense of embracing digital banking. In addition, internet banking is unreliable when users are unaware of the nature of the internet banking services provided by their banks. Due to a shortages of access to power or alternative energy sources, it is extremely challenging for rural residents to utilise digital banking services. The elderly and other

uneducated age groups populate the Internet banking market. Consequently, those individuals are excluded from the use of internet banking.

Additionally internet banking has become inherent vulnerable to the characteristics money laundering as well as the general anti-money laundering(AML) rules applicable to their nature of business require constant review. According to open source, digital banking has enabled customers to make transations without logging in information of their digital profile on phones and computers. This has open room for financial criminals to engage into money laundering activities. The actual client who have access to his or her financial account can hide his or her identity which will make it difficult for banks to conduct Customer Due Diligence (CDD) and Know Your Customer (KYC) standards.

Locally, Zimbabwe has historically utilised cash as its means of trade exchange. However, electronic transactions have increased in Zimbabwe due to the liquidity crisis, which is defined by a lack of currency. The transition to digital products has created a danger to Zimbabwe's financial institutions, which are straining to handle electronic payment instructions, both domestic and foreign, due to a surge in physical Real Time Gross Settlement (RTGS) demands (RBZ, 2017). The bank systems can only accept particular transaction volumes or limits before they require maintenance to enable for the processing of new transactions. As a result, transaction failure rates for both physical instructions and electronic transactions are rising gradually throughout the banking industry (RBZ, 2017). However, the sector's profitability has improved in recent years, which can be attributed to an increase in fees and commissions because of the rise in electronic transactions (RBZ, 2017). Therefore, even though the rate of transaction failure has increased dramatically across digital platforms as a result of rising transaction volumes, bank profits have continued to rise over the past few years. In light of this, the study sought to evaluate the impact of digital banking on the performance of Harare-based commercial banks.

1.2 Statement of problem

According to a study conducted by Sibanda (2014) digital banking services were initially introduced in Zimbabwe in 2010 and have triggered a lot of activity and banking institutions are continuously scuttling for their share in the digital financial services space. It has been established

by other researchers such as Hendrickson and Nicholas (2011) that digital banking can into existence as a result of technological advancements and its adoption by the banking sector was earmarked at eliminating high costs, inconveniences and inefficiencies that were associated with traditional banking with regard to production and service delivery. The adoption of digital banking in Zimbabwe has been triggered by the liquidity crisis and according to RBZ (2017) banks are struggling to process electronic payment instructions, both for local and international demands, due to a huge increase in physical Real Time Gross Settlement, (RTGS) requests. Recently, according to Ahmed and Sur (2021), the Covid-19 pandemic and associated restrictive measures resulted in changes in the uses pattern of digital banking services across the globe. As a result of the lockdown measures introduced during the pandemic, most banks had to resort to the use of digital banking as physical branches were prohibited from operating. According to researchers such as Mbama and Ezepue (2018), the adoption of digital banking improves the performance of banks through increased efficiency, cost reduction, cross-selling opportunities, and customer satisfaction among other performance indicators. In addition, some researchers such as Shih et al, (2014), Mupfig (2013), Ngango (2015) and Maringe (2012) have, on the other hand, questioned the efficacy of this notion and argued that digital banking is associated with many challenges including its lack of inclusiveness for other demographics as well as challenges with network among others while some have observed insignificant relationships between digital banking and performance. Therefore, the main goal of the study is to analyse the degree to which digital banking adoption has an impact on the performance of the banking sector in Zimbabwe.

1.3 Aim of the study

The main aim of the study was to determine the impact of digital banking on the performance of Zimbabwean banks located in Harare.

1.4 Objectives of the study

- To establish the nature of digital banking available in banks in Harare.
- To determine the impact of digital banking on the performance of banks in Harare
- To explore challenges associated with digital banking to the performance of banks in Harare

- To recommend possible measures to curb the challenges posed by digital banking on the performance of banks in Harare.

1.5 Research Questions

- What is the nature of digital banking available in banks in Harare?
- What is the impact of digital banking on the performance of banks in Harare?
- What are the challenges associated with digital banking to the performance of banks in Harare
- What are the possible measures that can be adopted to curb the challenges posed by digital banking on the performance of banks in Harare?

1.6 Significance of the study

To the banking sector

The main aim of the study was to determine the impact of digital banking on the performance of banks. In this regard, the study is expected to immensely benefit the banking sector as they will get an appreciation of how they can utilise the banking sector to improve their performance. In addition, the study is also expected to unveil challenges faced as well as possible interventions to the challenges posed by digital banking. This is also expected to further equip the banking sector in terms of how they can maximise the benefits that can be brought by digital banking in the face of challenges that the technology might pose.

To the customers

The study is also expected to be of paramount importance to customers of the banking industry as they will gain an appreciation of the various digital banking platforms at their disposal. In this regard, they will be in a better position to select the ones that are convenient suit the preferences and satisfy their banking needs.

To policymakers

The findings of the study are also expected to provide valuable information to policymakers with regard to digital banking and how it affects the performance of the banking sector. By so doing, they will get an appreciation of the how best they can make informed policies that regulate digitalization of the banking sector and at the same time taking into account how it affects the sector.

To scholars and other researchers

Moreover, the study is also expected to contribute to the body of literature thus acting as a source of reference for future scholars or researchers who might be interested in conducting studies in the same or related fields of study.

To the researcher

The study is also expected to enhance the student's research skills as well as contribute to the attainment of an Honor's degree in Financial Intelligence.

1.7 Assumptions

The study was based on the following assumptions:

- Respondents from the questionnaires shall provide data that is accurate, authentic and free from bias.
- The banking sector has adequate knowledge of digital banking and its impact on performance
- The sample size adopted is representative of the total population (banking industry)
- Results obtained from the study can be generalised to other regions within the country
- Second-hand sources of data provide accurate information reflective of what has transpired in the banking sector about digital banking.

1.8 Delimitations of the study

The study was centralized and focused on Harare CBD. In addition, the study focused on the impact of adopting digital banking in Harare CBD only. The target population for the study were commercial banks with branches located in Harare CBD and these include CABS, CBZ, FBC,

First Capital Bank Limited, Ecobank Zimbabwe, Nedbank Zimbabwe, Metbank, BancABC, MNB, Stanbic, Steward Bank, Standard Chartered and ZB Bank Limited. Moreover, the study mainly focused on events that transpired between 2019 to 2022.

1.9 Limitations of the study

The proposed study concentrated on digital banking products and isolated other banking sector products that include individual and business loans, savings, and mortgage lending that influence the performance of banks. The was centralised and focused on commercial banks in Harare CBD. However, since it is the capital city of Zimbabwe, the researcher believed it is home to almost all commercial banks that are present within the country. In addition, the researcher faced time constraints since the research project was carried out simultaneously with other courses.

Moreover, some respondents were unwilling to unveil information that they deemed sensitive and confidential thereby limiting the researcher. Nevertheless, the researcher communicated with the top managers and highlighted the significance of the study to source the information from their subordinates as well as guarantee that the information they provide was only to be used for academic purposes.

1.10 Organisation of the rest of the study

The current study is divided into 5 chapters. the following chapter (Chapter 2) presents review literature related to the study. Chapter 3 outlines the methodology used by the researcher in conducting the study. Chapter 4 presents, analyses and discusses the results obtained from the study. The last chapter (Chapter 5) gives a summary of the study, conclusions, recommendations and suggestions for areas of further studies.

1.11 Chapter Summary

The chapter presented the background of the study, the problem statement, the research aims, objectives and questions. In addition, the chapter also presented the delimitations, limitations and assumptions of the study. Moreover, the chapter also presented the definition of terms as well as

the organisation of the rest of the study. In this regard, the following chapter presents a review of the literature related to the study.

CHAPTER 2

LITERATURE REVIEW

2.0 Introduction

This section of the study presents a review of literature. Literature in this chapter is reviewed in line with the objectives of the study articulated in the previous chapter. The chapter however began with the conceptualisation of digital banking and its nature followed by the theoretical framework underpinning the study. Thereafter, the chapter presented literature on the impact of digital banking on performance and the challenges associated with digital banking as well an empirical review of literature. Lastly, the chapter presented a conceptual framework based on the literature reviewed.

2.1 Nature of digital banking

According to Kahuhu (2020), digital banking can be categorized into three major components and these include mobile banking, internet banking and ATMs. These components are reviewed in the following sections.

2.1.1 Mobile banking

Mobile banking is the use of a mobile phone or other mobile devices to link a customer's account to a financial transaction (Muisyo et al., 2014). By installing applications for mobile phone users, banks and other financial service providers can generate new revenue, attract or retain customers, control costs, and obtain other benefits. Mobile banking has altered the way banks conduct business, resulting in the creation of new goods and services targeted at reducing expenses and expanding the customer base (Oluoch, 2012). Even though mobile banking can increase the savings rate and provide access to financial products, it currently faces obstacles such as the payment system (Islam, 2014).

2.1.2 Internet Banking

Internet banking, also known as online banking and virtual banking, is a form of electronic banking known as e-banking that enables bank customers to conduct retail financial transactions via an internet connection with the bank. The primary forms of e-banking include PC-home banking, telephone banking, and internet banking (Nasri, 2011). Internet banking, as defined by Sullivan and Wang (2013), consists of a website that enables users to do routine banking transactions without visiting a bank branch. Thulani et al. (2009) define internet banking as a mechanism that enables bank customers to access their accounts and general information on bank products and services through the use of the bank's website, without the interference or inconvenience of sending letters, faxes, original signatures, and phone confirmations. Online banking has been recognised as the most efficient method for customers to reduce expenses and maintain or enhance services. By offering Internet banking services, conventional financial institutions attempt to minimise operational costs, improve consumer banking services, attract clients, and grow their market share. The Internet is the most cost-effective distribution channel for banking products, allowing the corporation to decrease its branch networks and support staff.

2.1.3 Automated Teller Machine (ATM)

The Automated Teller Machine (ATM) is a computerised telecommunications system that enables clients to access financial transactions in a public venue without the need for a human clerk or bank teller. On most current ATMs, customers are identified by inserting a conventional ATM card with a magnetic stripe or chip or a smart card with a chip containing a unique card number and some security information, such as an expiration date and serial number (Khan, 2010). A new way of service delivery, ATMs provide a variety of financial services, including cash withdrawals, money transfers, cash deposits, payment of utility and credit card bills, requests for chequebooks, and other financial enquiries (Amoah-Mensah, 2010). They confront various challenges in their attempts to address client needs, including the inaccessibility of accounts when consumers are far from their mother banks and lengthy waits in the banking hall (Islam et al., 2007). ATMs are positioned not only close to or within the premises of banks, but also in sites where significant numbers of people congregate, such as shopping malls, gas stations, supermarkets, and restaurants (Steve, 2002). Ogbuji et al. (2012) identified the ATM as one of the available alternatives to the

labour-intensive cascading transaction system facilitated by what are commonly known as paper-based payment instruments. In this study, the researcher notes that ATM channels are gaining crucial importance as a self-service technology that affects the financial performance of banks and other institutions.

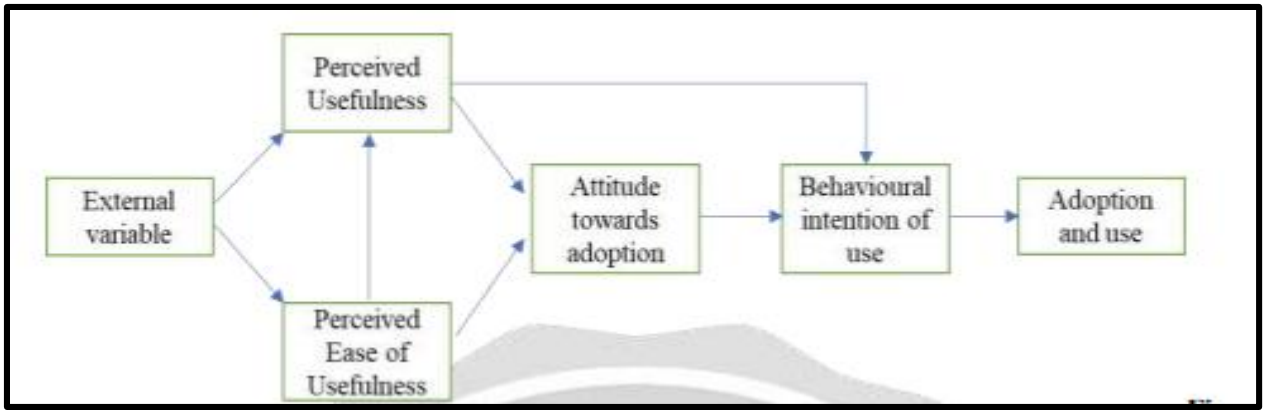
2.2 Theoretical Framework

A theoretical framework is regarded as a foundation review of existing theories that serve as a roadmap for developing the arguments used in a study. Theories developed explain phenomena, draw connections, and make predictions. In this regard, the study hinges on the Technological Acceptance Model, the Transactions Cost Innovation (TCI) Theory and the Resource Based Theory and these are presented in the following sections.

2.2.1 Technological Acceptance Model

Davis (1989) developed the Technological Acceptance Model (TAM) to analyse the acceptance and utilisation of technology. This notion focuses on examining the adoption behaviour of users in relation to both external and internal technological elements. TAM is used to describe how the client adopts or abandons a technology based on the "perceived ease of use" and "perceived usefulness" of the technology (Safeena et al., 2014). The main TAM components that have an immediate impact on the adoption and use of digital banking are perceived usefulness and perceived ease of usefulness (Safeena et al., 2014). These interactions are depicted in Figure 2.1

Figure 2.1: Technological Acceptance Model



Source: Davis 1989

According to the Model, in order for an organisation to accept and use digital banking, it will need to evaluate all of the benefits and side effects associated with that particular benefit. The application of the model to the current study derives from the fact that these benefits imply an improvement in an organization's performance in terms of efficiency, cost minimization, and contribution to financial performance, among other performance indicators.

2.2.2 Transactions Cost Innovation (TCI) Theory

Niehans (2006) pioneered the Transactions Cost Innovation (TCI) theory, which posits that the major factor of financial innovation is the decrease in transaction costs. In reality, financial innovation is the result of technological advancements that lowered transaction costs. The decrease in transaction costs can foster financial innovation and service enhancement. It asserts that financial innovation lowers transaction costs (Kombe and Wafula, 2015). TCI theory is also applicable in this area; for example, the introduction of digital banking technology can significantly reduce a company's transaction costs since it facilitates efficient coordination, management, and utilisation of information. Online banking may further reduce transaction costs because it enables remote access to the company's internal database and other pertinent information sources. Therefore, the decrease in operational expenses through digital banking may impact the bank's profitability growth (Kombe and Wafula, 2015).

2.2.3 Resource-Based Theory

RBV theory developed by Wernerfelt in 1984 emphasizes the importance of resources and their effect on the performance of the firm. The theory is used to explain how business firms such as banks gain competitiveness through innovatively delivering superior value to customers, focusing on identifying unique resources and using them optimally to their advantage. This can only be achieved when firms gather resources and use them optimally to their advantage (Mwiti, 2016). RBV theory also suggests that the various assets that a firm has are the inputs to its production process (Mwiti, 2016). The performance of firms is consequently primarily determined by the capability of the resources that it has (Mwiti, 2016). In this regard, digital banking can be adopted and used by commercial banks if it is expected to enhance performance hence.

2.3 Impact of digital banking on bank performance

As the use and demand for electronic banking rise, more banks recognise that electronic-based banking delivers low-cost and high-return advantages (Akhisar et al., 2015). However, in the context of poor nations such as Zimbabwe and Botswana, there is a lack of well-developed telecommunications, which prevents the cost-effectiveness and financial performance of electronic banking from being realised due to inadequate technology infrastructure (Akhisar et al., 2015; Mazana et al., 2016). This entails that banks should make a large initial investment in infrastructure before reaping performance and cost-effective benefits. The objective of digital banking is to have a direct impact on the profitability or return on assets and to improve the quality of assets (Gutu, 2014). In contrast, there are substantial indirect effects. According to DeYoung (2001), online banking and other electronic banking services cut operational expenses for banks with physical overhead costs. Numerous research has examined the relationship between electronic banking and its impact on bank performance. Surprisingly, investigations on this topic produced ambiguous results. Nonetheless, a positive correlation was found in several research (Aduda and Kingoo, 2012; Mehmood et al., 2015; Bagudu et al., 2017; Maduku, 2014; Akhisa et al., 2015; Mazana et al., 2016). According to studies with favourable findings, banks that provide extensive digital banking services tend to perform better than those that lag.

Studies conducted in developed countries (Soh et al., 2014; Mehmood et al., 2015) revealed that electronic banking decreases operational expenses and, as a result, increases bank profits. Akhisa et al. (2015) discovered a positive association between technological innovation and bank performance in both developed and developing nations. This is consistent with research conducted in Africa, particularly Zimbabwe (Mazana et al., 2016), Nigeria (Bagudu et al., 2017), Zambia (Lusaya and Kalumba, 2018), and South Africa (Maduku, 2014), where the findings indicate that banks that have adopted digital banking have improved their performance via increased productivity and efficiency. Against this backdrop, this study aims to examine the impact of electronic banking on Zimbabwe's commercial banks.

In financial services, a lender's vitality is determined by how long it can collect funds from consumers at the lowest cost; buy cash, do something with all the cash, and then sell it for the benefit of the consumers (Dew, 2012). Financial innovations enable firms of all types to raise capital in greater volumes and at a lower cost than they might otherwise (Lerner, 2012). It will become apparent that a lender tends to minimise expenses and fees. After introducing innovations, a lender will uncover new chances that can be exploited further, resulting in increased income in the long run (Nofie, 2011). Based on data from around 27 EU markets regarding retail payment assistance at the national level, evidence demonstrates that banks perform significantly better in nations with more sophisticated retail payment services, as measured by accounting ratios and benefit and cost efficacy scores (Iftekhar et al., 2015). According to Massoud and Bernhardt (2012), ATM surcharges have the potential to affect bank growth both directly and indirectly through the so-called consumer connection effect. This consequence causes a client at a bank with few ATM accounts to switch to a bank with many ATMs to avoid ATM costs. If switching occurs, higher ATM fees must increase the market share of bank goods (such as deposits) and the profitability of larger banks while decreasing the market share and viability of smaller banks (McAndrews, 2012). The performance of a lender is enhanced via the following:

2.3.1 Revenue Generation

It is anticipated that banks that provide e-banking will enjoy a profitability advantage over their rivals. E-banking provides greater opportunities for revenue-generating because it generates income from non-interest sources in addition to interest. The advent of accessible and convenient

e-banking services and products has enabled banks to attract new consumers, helping them to increase their market share. Adding value through giving superior services and goods to the customer (Ciciretti et al., 2008). This results in great client satisfaction and retention rates. Another significant advantage of e-banking innovation is fee-based income (Dew, 2012). If a bank joins an ATM network, it can generate revenue from the customers of other banks that use its ATMs, as well as from third parties that cooperate with it. The greater the number of transactions with a third party, the greater the fee-based money earned, so compelling the bank to expand the functionality of e-banking transactions to include mobile phone top-ups, ticketing, payment of telephone or power bills, and payment of property taxes. Additionally, joining a particular ATM network will increase customer knowledge of that bank and affect its market share (Iftekhar et al., 2012).

2.3.2 Improved Efficiency

E-banking strategy comprises the adoption of core banking systems, which decreases the amount of manual labour and processing time. To integrate e-banking, firms must build new, effective procedures and rethink their business infrastructure. This increases the effectiveness and durability of connections (Shah and Clarke, 2009). Eliminating redundant data and errors increases branch efficiency. This enhances the reduction of processing and turnaround time, enabling improved service delivery efficiency and output growth. Additionally, consumer discontent with traditional banking because of bad long-term customer service is eliminated, which helps to increase in market share for electronic currencies (Karjaluoto et al., 2012). However, senior management commitment drives the adoption and utilisation of technologies (Shiels et al., 2013). Banks Services are now generating income from innovation through annual and commission deductions. On goods and services such as ATMs, wire transfers, etc., the banks impose a certain quantity or level of fees, as well as a set percentage. The results demonstrate that e-banking improved bank profits and led. Banks are moving from traditional banking techniques to computerised methods. Since expenses have fallen, performance has improved; costs of labour, the supply of services, time stored, precision, dependability, and high-quality providers have increased (Sana et al., 2011).

2.3.3 Cost Saving

In addition, banks may be able to minimise spending on-premises, resources, and equipment. This adds to the expenditures associated with branch maintenance. Jayawardhena and Foley (2000) state that the cost reductions result from the combined impacts of reduced and increased employee utilisation, more economical use of space, and operational savings that contribute to a dramatic increase in the profit margin. Therefore, banks with costly branch networks are motivated to adopt Internet banking with the promise of future cost reductions (Furst et al., 2002). Processing provides a means for a bank to provide services while reducing transaction costs and fees. These cost savings can provide banks and their clients with a variety of efficient services and bank fees. The Internet provides both banks with a potential competitive advantage in the areas of cost reduction and increased customer satisfaction (Bradley and Stewart, 2013). Encouraging consumers to conduct banking transactions online could result in large reductions in operational expenses, hence expanding the profit margin (Sathye, 2013). The Internet is the most cost-effective distribution channel for basic banking procedures, such as account maintenance and capital transfer (Polasik and Wisniewski, 2013).

2.3.4 Cross-Selling Opportunities

E-banking systems give banks the capabilities to develop and design products for diverse market sectors. This solution's product bundling capabilities provide banks with a variety of options for creating products with complex features (Tawfik and Albrecht, 2008). This enables banks to innovate and broaden their product offerings. The power of an e-banking system to provide complete information about customers' financial profiles and purchasing behaviour, as well as a thorough understanding of customers, enables the customization of advertising and products and affords the opportunity for cross-selling (Shah and Clarke, 2009). As a result, the bank's performance is enhanced since it can address the needs of each customer.

2.4 Challenges to digital banking adoption

Lack of awareness, uncertainty about the benefits of digital banking, concerns about lack of human resources and skills, set-up costs and pricing issues, and security concerns are the most significant

barriers to digital banking by customers and suppliers, according to Mahajan et al. (2002). Other factors include security concerns, concerns about legal and liability aspects, high costs of development, and limited knowledge of e-banking models. Lack of telecommunications infrastructure, lack of qualified staff to develop and support e-banking sites, lack of skills among consumers needed to use the internet, lack of timely and reliable systems for the delivery of physical goods, low bank account and credit card penetration, low income, and low computer and internet penetration, in general, are challenges faced by organisations adopting ICT and digital banking in developing countries (Bingi et al., 2000). Inadequate telecommunications infrastructure includes insufficient Internet connectivity, lack of established telephone lines for end-user dial-up access, and underdeveloped Internet Service Providers (ISPs).

In addition, the lack of legal and regulatory frameworks hinders the growth of e-banking in developing nations (Kapurabandara, 2009). Bradley and Stewart (2003) discovered that adoption is highly influenced by organisational characteristics. Lack of access to computers, lack of suitable software/hardware components, affordable telecommunications, low e-banking use by supply chain partners, concerns with security and legal issues, low knowledge level of both management and employees, and a lack of clarity regarding the benefits of e-banking were identified as major barriers to adoption. According to Kapurubandara (2009), a study conducted in Egypt (El-Nawawy and Ismail, 1999) determined that the primary factors contributing to non-adoption were lack of awareness and education, market size, lack of a suitable e-banking infrastructure, as well as telecommunications infrastructure and financial infrastructure, the legal system, the role of the government, pricing structures, and social and psychological factors. The adoption of e-banking technology by banks and financial institutions in both developed and developing nations is susceptible to a plethora of macro- and micro-level complicated and intertwined factors.

2.5 Empirical literature review

Gilaninia et al. (2011) conducted a quantitative study to determine the factors that influenced the behavioural tendency to accept digital banking in Iran. The study revealed different digital banking channels that customers can utilise to access their bank accounts to transfer money or pay bills and these channels according to the study include internet, telephone, mobile, digital TV and ATM.

Kamutuezi (2016) also conducted a study to determine the adoption of digital banking in Namibia. Convenience sampling method was used and data was collected from 50 internet banking users and 16 non-users from selected four banks through a self-administered questionnaire. With regards to the nature of digital banking, the study revealed that digital banking typically includes internet banking, home banking, webpages, telephone banking, television banking, mobile banking and ATM.

Azmi et al. (2020) conducted a study to determine the impact of digitalization on bank performance using interviews of 30 employees from ten banks in India. In order to analyse bank performance three factors were studied namely employee efficiency, cost of operations and profitability. Digitalisation was found to be positively associated with all three variables under the study. The study concluded that digitalization of banking services has improved bank performance and allowed it to expand from core banking services to complete financial solutions.

Using simple random sampling in selecting 22 commercial banks in Nigeria, Bagudu et al. (2017) sought to determine the impact of mobile banking services on bank profitability. The study concluded that that electronic banking positively and significantly impacts the financial performance of commercial banks in Nigeria. Saddik et al. (2016) conducted a study to determine the impact of electronic banking on ROA and ROE. The study used panel data of 13 commercial banks in Bangladesh over a period of 10 years. ROE and ROA were both used as dependent variables and the Pooled regression analysis was used. A dummy variable for internet banking was used as the main variable. The study found out that electronic banking positively influences on the financial performance of commercial banks in terms of ROE but insignificant in terms of ROA.

In addition, Kimani (2015) also conducted a study to assess the impact of mobile banking on operational efficiency of commercial banks. The research was a census survey of the 43 Kenyan commercial banks in. The study used secondary data on the amount of registered mobile banking customers, sums of money transferred through mobile banking, earnings of the banks and operational cost for the period 2011 to 2014. Data analysis was created and the correlation between growth in mobile usage and expansion in banking efficiency was estimated. The study revealed that mobile banking positively and significantly impacts the operational efficiency of commercial

banks in Kenya. The research recommended policy makers to constantly look at adopting mobile banking technologies.

Vekya (2017) also did a study to determine the impact of ATM and POS transactions on the profitability of commercial banks in Kenya. The study adopted a descriptive design. The population of the study consists of Kenyan 43 commercial banks. A census survey was undertaken. The study used secondary data obtained from various Kenya' central bank publications. Using SPSS to analyse data, the study concluded that a rise in ATM and POS transactions leads to a rise in bank profitability.

On the contrary, Morufu (2016) conducted a study to determine the impact of internet banking on ROA. Panel Regression was used and secondary data was collected from 10 banks in Nigeria for the period 2005 to 2012. The research revealed that Internet banking transactions were found to have a negative effect on banks' profitability.

Malhotra and Singh (2010) found that internet banks were less profitable than the non-internet banks and suggested that internet banking is not a significant determinant in explaining profitability. They attributed the growth of internet banking on private and foreign banks.

Shelar and Kumar (2019) They have studied the effect of digitalization in form of Electronic Payments Volume Growth on working capital of Kotak Mahindra bank by taking into consideration profitability, liquidity and efficiency. They found out that digitalization has reduced workforce, paperwork and improved transparency whereas, cost (maintenance and fixed) in nature also increases. Moreover, they also concluded digitalization directly would not affect profitability and efficiency in the short run.

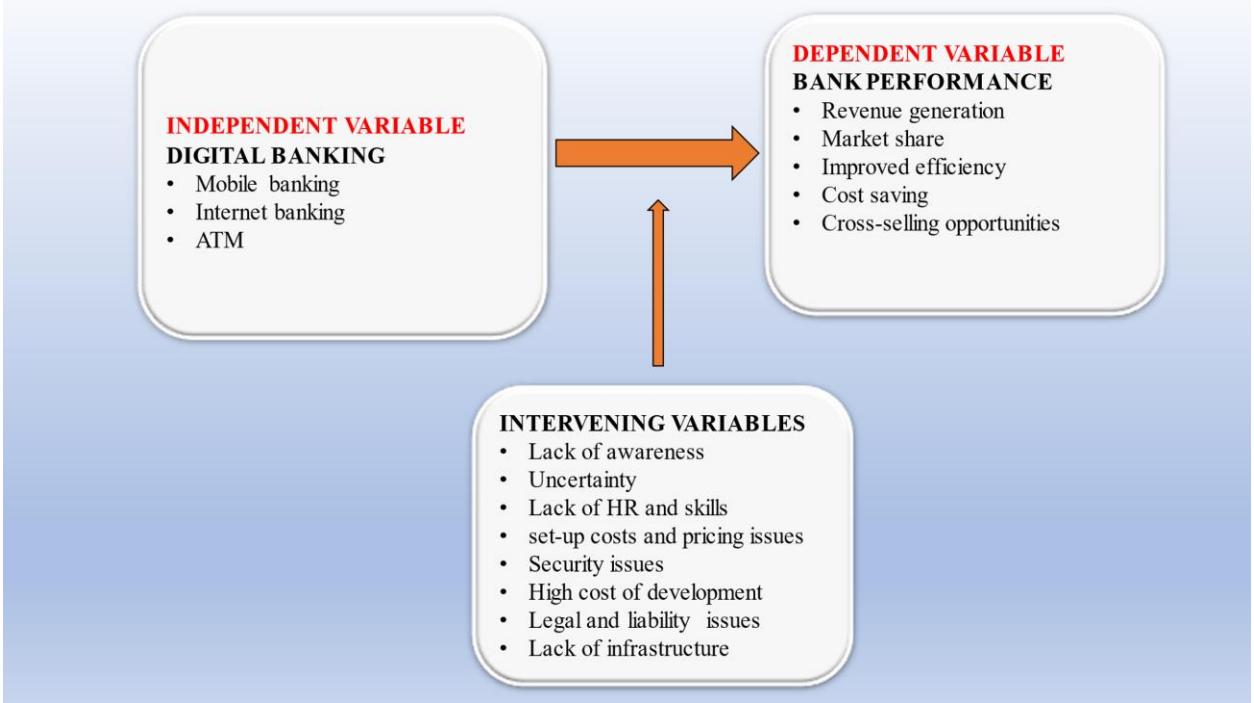
With regards to challenges in digital banking, Lusaya and Kalumba (2018) conducted a study on the usage of e-banking, accessibility of information regarding e-banking and expenses related to e-banking. The study was descriptive, and a sample of 50 banking customers in Kasama district in Zambia has been used. Accessibility of information regarding e-banking, instruction level and also the expenses related to e-banking are the substantial challenges to embracing and using e-banking by customers.

Sumra et al. (2011) by employing interviewing technique found the electronic banking have changed the banking environment and have made them more efficient. They have also found that e banking has also reduced cost of labour and improved services. They have also found e banking contributing positively towards bank profitability. Banks were able to cover high initial investment for infrastructure development and training their employees within a short span of time. Researchers are of the view that limited reach of cellular services and illiteracy are proving to be impediments on the way of transitioning to electronic banking.

2.6 Conceptual framework

A conceptual framework represents the researcher's synthesis of the literature on how to explain a phenomenon. It maps out the actions required during the study, given previous knowledge of other researchers' point of view and observations about research. In other words, a conceptual framework the conceptual framework is the researcher's understanding of how the variables in the study connect. Thus, it identifies the variables required in the research investigation. It is the researcher's map in pursuing the investigation. Based on the literature that has been reviewed, the following figure depicts the relationship between the dependent variable (bank performance) and independent variable (digital banking) as well as the effects of intervening variables.

Figure 2.2: Conceptual Framework



Source: Author's conceptualisation

According to literature and as presented in the framework depicted above, digital banking in its various forms has some impact on various performance measures of the banking sector. However, the impact of digital banking on bank performance is also affected to a varying degree by various factors that limit its adoption.

2.7 Research Gap

Review of existing literature reveals that researchers have found both positive and negative impact of digital banking on bank performance. There is however a dearth of literature on the effects of digital banking on bank performance in Zimbabwe. This study therefore attempts to fill the gap.

2.8 Chapter Summary

The chapter presented a review of related literature based on the objectives of the study. The chapter began by presenting the conceptual framework underpinning the study. Thereafter, the chapter presented literature on the impact of digital banking on performance, the nature of digital banking and the challenges faced in the implementation of digital banking. Lastly, the chapter

presented a conceptual framework based on the literature reviewed. The following chapter outlines the methodology used in conducting the study.

CHAPTER 3

METHODOLOGY

3.0 Introduction

This chapter presents the methodology used in conducting the study. Specifically, the chapter presents and justifies the research philosophy, research approach, research, design, and the research strategy adopted by the researcher. These were selected to effectively fulfil the objectives of the study outlined in the first chapter of the study. In addition, the chapter also presents the study population, sample size, sampling procedures used in coming up with research subjects, and the data collection instruments used in collecting data. Moreover, the chapter also outlines the data analysis procedures, validity and reliability and ethical considerations.

3.1 Research Philosophy

The study adopted a pragmatic research philosophy/paradigm. Research philosophies or research paradigms are the way in which research is conducted across disciplines. According to Antwi and Hamza (2015), a philosophy or paradigm is the orientation a researcher adopts to address a given problem or explain a certain phenomenon. Research philosophies are beliefs and generally held views that influence how knowledge is constructed in a given discipline. It also refers to perceptions held by society of what constitutes knowledge in a given field or discipline. According to Blumberg et al. (2014), there are four main trends of research philosophy that are distinguished and discussed in the works by many authors and these include positivist, interpretivist, pragmatist, and realistic.

According to Dieronitou (2014), positivism and constructivism are two extremes on a spectrum of research paradigms, and researchers must consider paradigms as a continuum rather than as opposites. Pragmatism is a research paradigm that incorporates elements of both positivism and constructivism. It focuses on examining topics of interest and value rather than debating the concepts of truth and reality, allowing for a more flexible approach (Kaushik and Walsh, 2019). In addition, positivism is mainly linked to quantitative research whilst constructivism is linked to qualitative research. On the other hand, pragmatism allows room for researchers to combine both

qualitative and quantitative research approaches (Teddie and Tashakkori, 2009). The study, therefore, adopted a pragmatism research philosophy as it allowed the researcher to combine multiple paradigms, approaches, and strategies in line with the research objectives and research questions.

3.2 Research Approach

For the study, the researcher, in line with the pragmatism research philosophy, adopted a mixed methodology research approach which blends both the qualitative and quantitative research approaches. According to Creswell (2013), there are two main research approaches in research, and these are qualitative and quantitative research approaches. Quantitative research methods are usually associated with deductive approaches, that is, based on logic while qualitative research methods are usually associated with inductive approaches or based on empirical evidence (Creswell, 2013). However, since the researcher adopted a pragmatist research paradigm, which allowed researchers to use multiple approaches, both research methods were utilised in the study. Thus, the study assumed a mixed-methods research approach.

According to Amaratunga et al. (2002), the use of a combination of qualitative and quantitative data can improve an investigation by ensuring that the limitations of one type of data are balanced by the strengths of another through triangulation. In addition, the use of mixed methods increases the level of confidence which can be put in the research methods because the use of a single method might be ineffective in some instances. Moreover, the use of mixed methods also allows meanings and findings to be elaborated, clarified, confirmed, and clearly illustrated (Zohrabi, 2013). It is against this background that this research adopted the mixed methods research approach.

3.3 Research Design and Justification

The research design is the description of how the research process will be completed. It is a framework which includes the considerations that led to the appropriate methodology being adopted, the way in which the respondents were selected, and how the data will be analysed (Flick, 2011). There are several different characteristic research designs and these include the descriptive, explanatory, and exploratory research design.

A descriptive research design relates to reflecting the experiences of respondents. It is thus related closely to ethnographic studies; however, a quantitative framework is also an appropriate framework; for example, the demographic characteristics of a population subgroup can be reported (Bryman, 2012). An explanatory research design is focused on how to effectively explain the characteristics of a population or a social phenomenon (Saunders et al., 2007). This may be seen as effective when using a quantitative framework, where the impact of one variable on another can be established (Kothari, 2004). The exploratory study is an exploration of a phenomenon that takes place before enough is known to conduct a formulaic research project. It is usually used in order to inform further research in the subject area (Neuman, 2003).

In this regard, the researcher adopted a descriptive study design. It is considered as a scientific method that entails watching and describing a subject's activity without altering it in any manner (Atmowardoyo, 2018). One advantage of the research design is that it can use a variety of research methodologies to investigate one or more variables. As a result, the researcher was able to collect data relevant to the research problem using both questionnaires and interview guides in the study.

3.4 Research Strategy

A research strategy is how the researcher intends to carry out the study (Saunders et al., 2007). A strategy can include several different approaches, such as experimental research, action research, case study research, interviews, surveys, or a systematic literature review. The study however adopted a descriptive survey research strategy. This involves collecting data from the subjects that made up the population through the administration of questionnaires, personal interviews and observations (Owens, 2002; Saris and Gallhofer, 2014). The approach was deemed appropriate because it allowed the researcher to gather different opinions from different respondents across the banking sector on the impact of digital banking on the performance of banks.

3.5 Population

According to Leedy and Ormrod (2005), a population in research is considered as a group of interests from which the researcher can obtain results. Polit and Hungler (1999) cited in Adami and Kiger (2005) further submit that population is an aggregate or totality of the objects, subjects

or members conforming to a set of specifications. Hence a population is formed by the total set of objects be it in a survey or a study. The population for the study included all commercial banks located in Harare CBD. According to RBZ (2022), there are 13 commercial banks in Zimbabwe and all these banks have branches located in Harare CBD. These banks included CABS, CBZ, FBC, First Capital Bank Limited, Ecobank Zimbabwe, Nedbank Zimbabwe, Metbank, BancABC, MNB, Stanbic, Steward Bank, Standard Chartered and ZB Bank Limited.

3.5.1 Target population

The entire set of units for which the survey data is to be used to make inferences is referred to as the target population. Therefore, the target population refer to those units for which the findings of the study are meant to generalise. Acharya et al. (2013) support the view by noting that the target population defines the entire group of objects or individuals which consists or forms the researcher's interests upon which they can use to generalise their conclusions. The researcher, therefore, targeted managers or senior employees in the ICT and finance departments of the commercial banks in Harare CBD. These were particularly selected because they were in a better position to inform the researcher on the adoption and utilisation of digital banking as well as the performance of their respective banks.

3.5.3 Sampling procedure

Bodnar et al. (2013) define sampling procedures as methods employed in obtaining samples from a population, usually in a fashion that facilitates the confirmation of some hypothesis about the population. The researcher collected data from the designated sample frame using non-probability techniques. Purposive and convenient sampling techniques were utilised to select study respondents. Purposive sampling technique was used to select 4 senior employees from each commercial bank to be questionnaire respondents. These 4 were purposively selected from the above-mentioned departments of each commercial bank. Furthermore, the researcher conveniently selected a total of 6 managerial personnel to be involved in the study as key informants for interviews.

3.5.2 Sample size

A sample is referred to as a subset or proportion that is representative of the entire population (Fink, 2003). As a result of its representative nature, findings from the sample can be used to represent the specific target population. Since the number of commercial banks in the study area is limited and manageable, the researcher included all the banks as part of the study. However, the researcher targeted a total of 4 senior employees from the above-mentioned departments from each commercial bank included in the survey. This therefore provided the researcher with a sample size of 52 questionnaire respondents and 6 senior employees to be Key Informants.

3.6 Methods of data collection

This section of the study outlines the data collection instruments used in gathering data from the above-mentioned respondents.

3.6.1 Interviews

For the proposed study, semi-structured face-to-face interviews were used to obtain data from Key Informants. These informants included 6 managerial employees conveniently selected from 6 of the commercial banks included in the survey. An interview is a data collection technique in which the interviewer asks key informants questions to elicit data and learn about the informants' ideas, beliefs, perspectives, opinions, and behaviour patterns (Harrell and Bradley, 2009). Furthermore, Whyte (2013) notes that interviews allow researchers to see events through the eyes of informants and are useful sources of information when properly conducted. Interviews can be given in three different ways. Structured interviews, semi-structured interviews, and unstructured interviews are the three types of interviews identified by Hay (2010). Structured interviews, also known as standardised interviews, are conducted using an interview schedule that includes a list of precisely phrased questions. When conducting standardised interviews, the very same line of questioning is used with all informants. The reason for asking all respondents the same questions is to consolidate informant responses and possibly test a hypothesis (Hay, 2010).

Semi-structured interviews on the other hand are non-standardised interviews that, while they maintain some degree of pre-set order, allow the interviewer to be flexible when questioning respondents (Hay, 2010). An interview guide is utilized while conducting structured interviews. An interview guide aids in the organisation and direction of the interview. Semi-structured

interviews allow for some freedom in that the questions asked are taken from the interview guide, however, extra questions that are not included in the interview guide can be presented if the interviewer believes it is necessary to do some more probing (Maree et al., 2010).

Unstructured or in-depth interviews, on the other hand, are informant focused and their goal is to extract information about personal perceptions and histories. The inquiries in unstructured interviews are totally dictated by the responses of the informants (Hay, 2010). The interviews are not strict and are more akin to a typical conversational exchange, with the informant having some control over the session.

The researcher understands the hectic schedules that managers and senior employees have. As a result, employing semi-structured interviews to gather data from these guaranteed that the researcher obtained all of the necessary data while remaining mindful of not taking up too much of the managers' limited time. According to Maree et al. (2010), semi-structured interviews rarely last a long time since they are based on a line of inquiry pre-planned prior to the interview. Nonetheless, despite the fact that semi-structured interviews use an interview guide with pre-planned questions, using semi-structured interviews also permitted the researcher to dig further when there is a need for greater clarity on any topic under discussion. The researcher thus conducted face-to-face interviews with informants in order to capitalise on nonverbal cues that informants gave. Nonverbal cues are bodily movements or expressions that individuals use when talking with one another (Kothari and Gorg, 2014). These also allow researchers to appreciate the enormity of what the respondents attempt to say by observing their nonverbal cues. Furthermore, face-to-face interviews also allow the researcher to establish rapport with the interviewees.

3.6.2 Questionnaires

A questionnaire is a research instrument that takes the form of various questions and other prompts for gathering data from respondents (Xerri, 2017). There are three types of questionnaires that Kothari and Garg (2014) identified, and these are closed-ended, open-ended and mixed or semi-structured questionnaires. Closed-ended questionnaires are those that have questions that have a variety of options as responses. Closed-ended questionnaires allow informants to choose one option from the variety of options given on the questionnaire. Ranney et al. (2015) articulate that

closed-ended questionnaires are appropriate when one is undertaking preliminary analysis. Moreover, since a fixed answer set is given, closed-ended questionnaires are ideal for the calculation of statistical information such as percentages of various phenomena. Open-ended questionnaires are not based on a pre-determined set of responses. They give room for informants to voice their feelings and opinions freely. Finally, mixed questionnaires are those that consist of closed-ended questions as well as open-ended questions.

The researcher, however, used semi-structured questionnaires to gather information from respondents. The rationale behind using such questionnaires is that in some cases, respondents have a tendency of ticking responses, particularly, in close-ended questionnaires, without necessarily taking time to read and understand the questions asked. As such, the researcher resonated that close-ended questionnaires alone were not going to acquire the correct or additional information from the responses. In addition, using a semi-structured format, also assist researchers to connect with informants and getting opinions and explanations on the topic under investigation. Kothari and Gerg (2014) assert that when informants are granted an opportunity to express themselves, they often provide real, exceptional and at times startling proposals. Semi-structured questionnaires tend to guide and draw accurate feedback as well as suggestions from respondents. In this regard, semi-structured questionnaires were distributed to 54 senior employees from the ICT and finance departments of the 13 banks involved in the survey.

Data collection procedure

As mentioned in the previous sections of the chapter, data were collected using both questionnaires and interview guides. In this regard, questionnaires were physically distributed and collected from the targeted respondent. In addition, interviews were scheduled with managerial employees and conducted face-to-face with the Key Informants at a predetermined time and venue. Interviews were recorded using recording devices and notes were carefully taken during these interviews.

3.7 Validity and reliability

According to Thanasegaran (2009), validity is the ability of an instrument to measure what is supposed to measure. On the other hand, Thanasegaran (2009) describes reliability as the degree to which research instruments are free of errors and are able to yield consistent results at different

times and conditions. Reliability deals with the dependability of the research. An instrument is reliable when the same tests are done more than twice and produce similar results. By editing and reviewing the data collection methods used, such as the questionnaire and interview guide, the researcher's supervisor improved the validity of the data collection methods and research instruments used. In addition, the adoption of the mixed method in gathering data also enabled greater validity as this had the effect of contrasting the qualitative and quantitative data and better interpretation of the findings. This therefore allowed the researcher to triangulate the results obtained from each instrument used in data collection.

Moreover, the Cronbach Alpha was also used to test the reliability of the measures/constructs used in the instrument. The Cronbach Alpha proposes alpha coefficient ranges with values between 0 and 1. The higher the score, the more reliable the generated scale is. Connelly (2014) has indicated 0.7 to be an acceptable reliability coefficient, but lower thresholds are sometimes used in the literature. The researcher, however used a benchmark of 0.7 to measure the reliability of the instruments utilised. Pre-testing was also used to examine the extent to which the instrument and techniques were stable, consistent, accurate and dependable.

3.8 Data analysis and presentation

Quantitative data collected was coded into the SPSS 26 software in a systematic manner for data analysis. Visual aids and tabulations were used by the researcher where appropriate to present data in a way that enhanced its analysis and evaluation. Frequencies, percentages, means and standard deviations were also used to analyse data. In addition, correlation analysis was also conducted to measure the relationship between study variables as well as the significance of these relationships. In addition, qualitative data collected through interviews was thematically analysed and presented in line with the objectives of the study which acted as themes.

3.9 Ethical considerations

Clark-Kazak (2019) deduce that ethics is a code of practice governing the way or manner of conducting a research process. Sobocan et al. (2019) further argue that ethics is a branch of philosophy dealing with people's conduct, guiding their norms or standards of behaviour as well

as their relationships with each other. In this regard, the researcher upheld the following stipulated study ethics as postulated by Sobocan et al. (2019).

- All completed questionnaires pertaining to sensitive issues were destroyed after data analysis and presentation.
- Anonymity and confidentiality (to protect the privacy of participants). The participants were assured that there was not going be an information sharing with others in a way that would jeopardise their identities or lives.
- The participants were not forced to participate in the research process rather they can do so voluntarily.
- The researcher also acknowledged the use of other sources of information.
- Participants were well informed and reassured that the data collected was strictly for academic purposes
- The research was conducted with respect for all groups in society. This was regardless of race, age, ethnicity, religion or culture or political affiliation.

3.10 Chapter summary

The chapter presented and justified the methodology that was used in conducting the study. Specifically, the chapter presented the research philosophy, research approach, strategy and design. Moreover, the chapter also presented the study population, sample size, sampling procedures as well the methods of data collection used in conducting the survey. The chapter also went on to outline the data analysis procedure as well as the ethical considerations upheld by the researcher. In this regard, the following chapter presents, analyses, and discusses the results obtained from the survey.

CHAPTER 4

RESULTS PRESENTATION, ANALYSIS AND DISCUSSION

4.0 Introduction

The previous chapter presented the methodology used in conduction the study. This chapter serves to present the results obtained from the survey and these are presented in line with the study objectives as well as the research methodology articulated in the previous chapter. The chapter however begins by presenting the response rate, the demographic characteristics of respondents and the reliability test results before delving into the objective specific results of the study.

4.1 Response rate

This section intends to present the rate of response received by the researcher. Table 4.1 below shows the questionnaire response rate that the researcher managed to receive from the questionnaires that were distributed.

Table 4.1: Response rate

Respondents	Questionnaires distributed	Questionnaires completed and returned	Response rate
Employees	52	47	90.38%

S*ource: Survey 2022*

As stipulated in the previous chapter, the researcher adopted a sample size of 52 questionnaire respondents from the 13 commercial banks. As shown in Table 4.1 above, a total of 47 out of the targeted 52 questionnaires distributed were fully completed and returned thus providing the researcher with a response rate of 90.38%.

Even though the researcher did not manage to obtain a 100% response rate, a 90.38% response rate was regarded as adequate for generalisation as supported by Cohen et al. (2018) who claimed that a questionnaire which produces a response rate of 50% is considered satisfactory. This was seconded by Fincham (2008) who claims that any survey research that manages to score a 60% response rate is considered high enough to depict a representation of the sampling frame and is

considered enough to warrant the generalisation of results to the rest of the study population. The high response rate was attributed to the follow-ups made by the researcher. The next section of the chapter presents the demographic characteristics of the study participants as depicted by the questionnaires that they returned to the researcher.

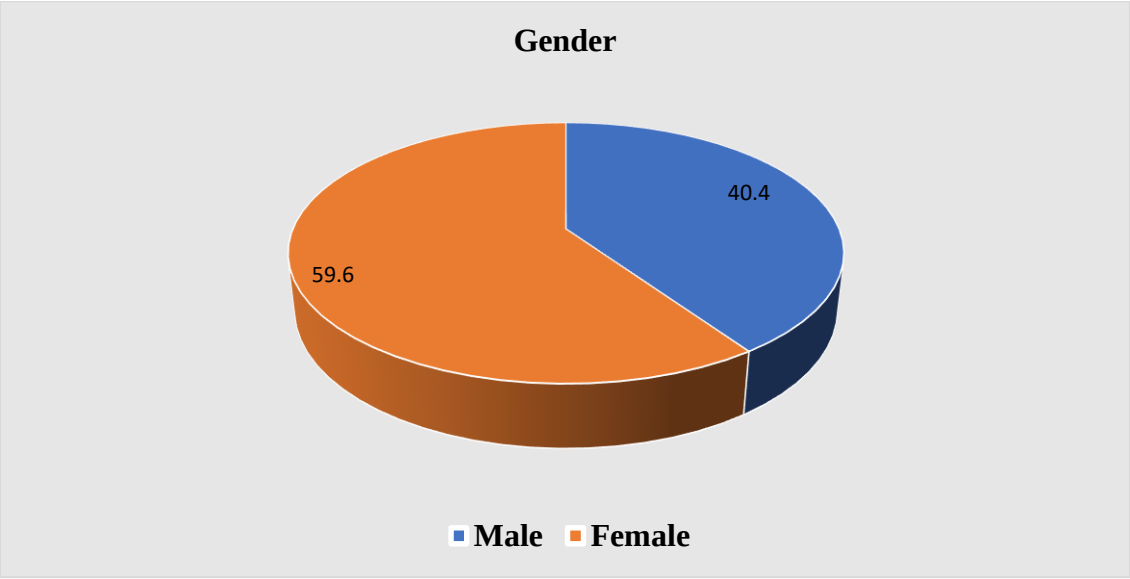
4.2 Demographic characteristics of respondents

This section of the study serves to present the demographic characteristics of all the respondents involved in the survey. Among these characteristics that the researcher sought to determine were, gender, age, education status, and work experience in the field under study. These demographics are presented in the sections below.

4.2.1 Gender distribution of respondents

Respondents were asked to indicate their gender on the questionnaire distributed. In this regard, the following results, as shown in Figure 4.1, were obtained.

Figure 4.1: gender distribution of respondents



Source: Survey 2022

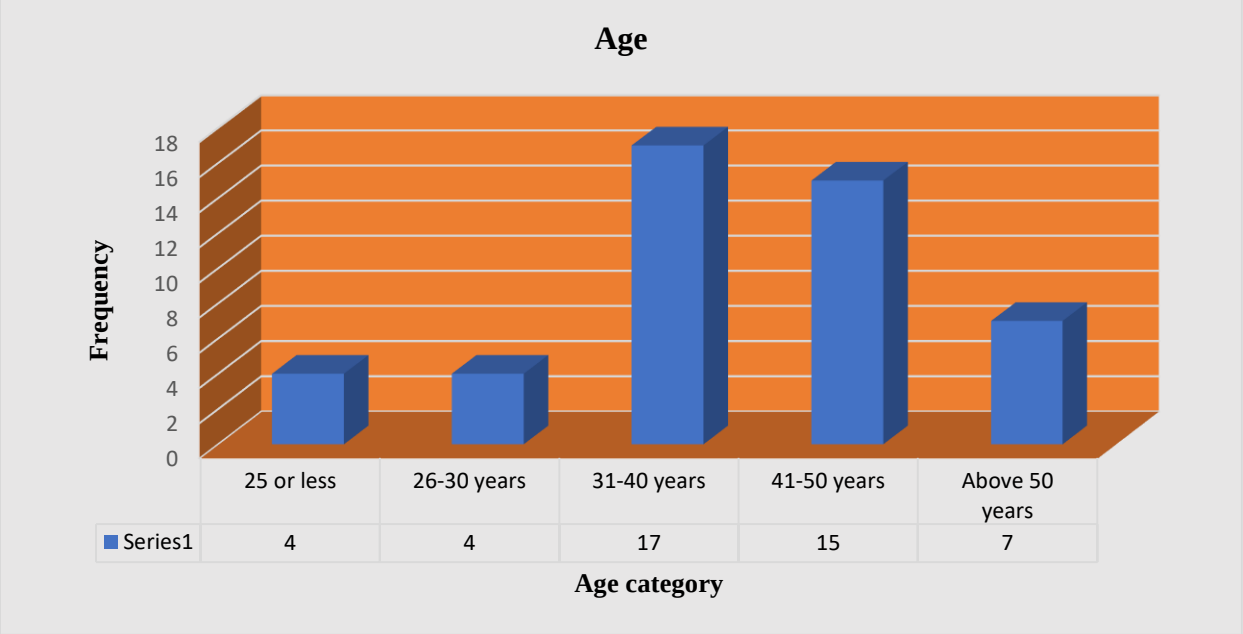
Results depicted in Figure 4.1 above indicate that the majority, 59.6%, of the respondents involved in the survey indicated that they were male, while, a considerable proportion, 40.4%, specified that

they were female. These findings are supported by Martins (2019) who argued that most formal professions, particularly, in the financial markets are male dominated. Taking this into account, the results obtained with regards to the gender distribution of participants indicate that the questionnaires were fairly distributed between males and females especially considering the fact that males dominate most professional economic activities in most organisations across several sectors of the economy.

4.2.2 Age distribution of respondents

In addition to the gender distribution of respondents involved in the survey, the researcher also sought to determine the age distribution of these respondents. In this regard, respondents were inquired to indicate their age distribution and the following figure depicts the results that were obtained from the survey.

Figure 4.2 Age distribution of respondents



Source: Survey 2022

Most of the respondents, 36.2% (17) specified that they were in the 31-40 years age group. These were followed by 31.9% (15) who indicated that they were between 41 to 50 years of age. Additionally, 14.9% (7) said they were above 50 years of age and 8.5% (4) specified that they were between 26 and 30 years with another 8.5% also indicating that they were 25 years old or

less. These results indicate that the majority of the study participants were mature and likely to have more experience in the field under investigation and likely to provide valuable and reliable information.

4.2.3 Education attainment

The researcher also sought to determine the education attainment of the study participants. In a similar manner, respondents were also asked to indicate the highest level of education they have attained, and the following results as depicted in Table 4.2 below were retrieved from the survey.

Table 4.2: Education status of respondents

Education status					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	Diploma	3	6.4	6.4	6.4
	Degree	25	53.2	53.2	59.6
	Masters	19	40.4	40.4	100.0
	Total	47	100.0	100.0	

S*ource: Survey 2022*

Results in Table 4.2 indicate that most of the survey respondents, 53.2%, had a degree. In addition, result obtained also indicate that 40.4% of the participants had attained a Master's degree education level while the minority, only 6.4% specified that they had a diploma. Again, as expected, these results indicate that respondents were highly educated as their professions required education. As result the researcher was confident that the information that they provided was likely to be informed, reliable and reflective of the true picture of what was happening on the ground. This is supported by Roberts (2019) who argued that educated and experienced respondents understand the significance of conducting a research and when involved in a study are more inclined to provide trustworthy, relevant and reliable information when compared to their less educated counterparts.

4.2.4 Experience in banking

Moreover, the researcher also sought to determine the work experience that the survey respondents had in banking. Table 4.3 below shows the results obtained in this regard.

Table 4.3 Work experience

Years of experience in banking					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	5 years or less	4	8.5	8.5	8.5
	5-10 years	6	12.8	12.8	21.3
	11-15 years	18	38.3	38.3	59.6
	15-20 years	16	34.0	34.0	93.6
	above 20 years	3	6.4	6.4	100.0
	Total	47	100.0	100.0	

As shown in Table 4.3 above, most of the survey respondents, 38.3% had 11-15 years of experience in the field under study. These were followed by 34% who had 15-20 years of working experience. Moreover, 12.8% of the respondents said they had 11-15 years of working experience in banking and 8.5% had 5 years or less while the minority, only 6.4% had above 20 years of working experience in the banking industry. These results on average, indicate that respondents are experienced in these fields as stipulated in the previous sections, these are more inclined to provide reliable information based on their education as well as working experience.

4.3 Reliability test results

This section of the study presents the reliability test results obtained. In order to test the reliability of the scales of measurement used in coming up with the questionnaires, the researcher used the Cronbach's Alpha test, and the following results were obtained.

Table 4.4: Reliability test results

Constructs	Cronbach's Alpha coefficient
Digital banking	0.726
Bank performance	0.799
Challenges	0.873

Source: Survey 2022

From the results table shown above, it can be noted that all coefficients were reliable as these were above 0.7 which according to Connelly (2014) is the acceptable benchmark for consistency and dependability. Moreover, according to Guenzi and Pelloni (2004), measurement scales that have alpha coefficients less than 0.6 are considered unacceptable. With these results, the researcher had the motivation and confidence to proceed with data analysis.

4.4 The nature of digital banking available in banks in Harare

The first objective of the study sought to establish the nature of digital banking available in banks in the study area. To achieve this objective, respondents were asked to indicate whether their banks utilised the following forms of digital banking. The following results as shown in Table 4.5 were obtained from the survey.

Table 4.5: Nature of digital banking

Nature/ type of digital banking	Response (Tick if used in your Bank)
Internet banking	100%
Home banking	63.83%
Webpages	53.19%
Telephone banking	74.47%
Television banking	70.21%
Mobile banking	100%
ATM	100%

Source: Survey 2022

From table 4.4 above, it can be noted that all inquired forms of digital banking inquired were being utilised by commercial banks in the study area. However, according to the respondents, the most

prominent types of digital banking were internet banking, mobile banking and ATM, followed by telephone banking, television banking, home banking and the least common being webpages.

After determining the types of digital banking that were being used by commercial banks in the study area, the researcher also sought to determine the extent to which these were being used by the banks involved in the survey. In this regard, respondents were inquired to indicate the extent to which each of the above specified types of digital banking were being used on a 5-point Likert scale with responses ranging from 1=very little extent to 5=very large extent (see Appendix 2). Percentages, means and standard deviations were used in presenting and interpreting the research findings. Obtained means were interpreted using the scales used in collecting data. However, these were rounded off to the nearest integer on the 5-point Likert scale used. For example, a mean score of 2.7 would be rounded off to 3, which would imply that, on average, respondents indicated "moderate extent". Similarly, a mean score of 3.4 would again be rounded off to 3. On the other hand, standard deviations less than 1 and close to zero imply that most responses were clustered around the mean thus cementing or strongly supporting the representative of the observed mean and those above 1 would signify otherwise. Table 4.6 below shows the results obtained when respondents were asked to indicate the extent to which types of digital banking were being used in their organisations.

Table 4.6: extent of digital banking adoption

Type of digital banking	**1**	**2**	**3**	**4**	**5**	**Mean**	**St. dv**
Internet banking	0%	0%	25.5%	53.2%	21.3%	**3.9574**	**0.69023**
Home banking	6.4%	57.4%	36.2%	0%	0%	**2.2979**	**0.58662**
Webpages	4.3%	42.6%	46.8%	6.4%	0%	**2.5532**	**0.68552**
Telephone banking	0%	17%	51.1%	31.9%	0%	**3.1489**	**0.69089**
Television banking	0%	63.8%	36.2%	0%	0%	**2.3617**	**0.48569**
Mobile banking	0%	0%	0%	31.9%	68.1%	**4.6809**	**0.47119**
ATM	0%	0%	25.5%	59.6%	14.9%	**3.8936**	**0.63362**

Source: Survey 2022

Upon being inquired on the extent to which internet banking was being utilized by their respective banks, most of the respondents, 53.2%, said the platform was used a large extent. An additional 21.3% specified that mobile banking was, to a very large extent used in their banks while 25.5% of the respondents indicated that it was moderately used by their respective banks. These responses generated a mean score of 3.9574 which can be rounded off to 4. This according to the Likert scale used implies that, on average, respondents specified that mobile banking was, to a large extent, used by commercial banks in the study area. A relatively small standard deviation of 0.69023 denotes that responses obtained were relatively more clustered around the mean thus supporting the general representativeness of the observed mean score.

Similar results can also be noted regarding ATM usage with a response generated mean score of 3.8936 and a standard deviation of 0.63362. This, therefore, implies that on average, respondents said ATMs were, to a large extent, used by the commercial banks in the study area.

In addition, respondents were also asked to indicate the extent to which home banking was being used in their respective banking institutions. In response to the inquiry, the majority of respondents, 57.4%, specified that the digital banking platform was used to a less extent while a considerable proportion, 36.2% indicate that it was moderately used. A mean score of 2.2979 implies that on average, respondents said that home banking was, to a less extent, utilised by the banks in the study area. This is also cemented by a standard deviation of 0.58662 which is less than 1. Similar results can also be observed regarding the utilisation of television banking with a response generated mean score of 2.3617 which again imply that respondents believed that television banking was, on average, used to a less extent in their banking institutions.

A mean score of 2.5532 obtained regarding the extent of the usage of webpages implies that the digital banking platform, according to the study respondents, was moderately used by the commercial banks involved in the study. Moreover, similar results were also obtained with regard to the extent of usage of telephone banking with a mean score of 3.1489.

It can also be noted that the majority of study respondents, 68.1%, indicated that mobile indicated that mobile banking was, to a very large extent used by commercial banks involved in the study. These were also supported by the remaining 31.9% who indicated that the platform was, to a large extent, used by their respective banks. A mean score of 4.6809 and a standard deviation of 0.47119

imply that, on average, respondents specified that mobile banking was to a very large extent utilised by the commercial banks involved in the study.

The results with regard to the nature of digital banking thus corroborate findings by Kahuhu (2020) who specified that digital banking can be categorized into three major components and these include mobile banking, internet banking and ATMs. Additionally, findings of the study are also in sync with Gilaninia et al. (2011) whose study revealed different digital banking channels that customers can utilise to access their bank accounts to transfer money or pay bills and these channels according to the study include internet, telephone, mobile, digital TV and ATM. Similarly, the findings of the current study are also supported by Kamutezi (2016) who discovered that digital banking in most banking institutions typically involves internet banking, home banking, webpages, telephone banking, television banking, mobile banking and ATM.

However, based on the findings presented above, by way of mean comparison, it can be noted that the most common type or form of digital banking among the banks involved in the study is mobile banking with the largest mean score of 4.6809. This was followed by internet banking (3.9574), ATM (3.8936), telephone banking (3.1489), webpages (2.5532), television banking (2.3617) and the least being home banking with a mean score of 2.2979.

4.5 The impact of digital banking on the performance of banks

The second objective of the study sought to determine the impact of digital banking on the performance of banks in the study area. In this regard, respondents were asked to indicate their level of agreement to positive statements linking digital banking to various performance measures of the banking institutions. To solicit responses, the researcher used a 5-point Liker scale with responses ranging from 1= strongly disagree to 5=strongly agree (see Appendix 2). Using the same criterion as use in the section above, Table 4.7 shows the means and standard deviation obtained from the responses obtained the survey.

Table 4.7: Impact of digital banking on bank performance

Statistics							
		Digital banking enhanced revenue generation	Digital banking results in profitability	Digital banking increases market share	Digital banking improves efficiency	Digital banking results in cost savings	Digital banking creates cross-selling opportunities
N	Valid	47	47	47	47	47	47
	Missing	0	0	0	0	0	0
Mean		4.1489	4.0000	3.8936	4.2766	3.5745	3.8511
Std. Deviation		.55084	.55168	.78668	.49791	1.03723	.80700

S*ource: Survey 2022*

Upon being asked to indicate their level of agreement to the assertion that digital banking enhanced revenue generation, respondents, on average, agreed with the probed statement. This is implied by a mean of 4.1489 and a standard deviation of 0.55084. Moreover, results also indicate that respondents, on average, agreed that digital banking results in profitability as implied by a mean score of 4.0000 and a standard deviation of 0.55168. Similar results can also be noted with regard to the statement that digital banking increases market share (3.8936), improves efficiency (4.2766) and results in cost savings (3.5745). Additionally, it can be noted that respondents also, on average, agreed that digital banking creates cross selling opportunities as implied by a mean score of 3.8511 and a standard deviation of 0.80700.

From the interviews conducted with key informants, it also emerged that digital banking offers more convenience, customer satisfaction and retention. In addition, interviewees also specified that the use of digital banking allows transactions to be conducted all day long without any need to visit a physical branch, which in turn increases the number of transactions, revenues for the bank, profitability, and returns. Moreover, it also emerged that digital banking is cost-effective than traditional banking as it reduces the cost of labour, improves transparency and service delivery. During the interview, one of the respondents had the following to say:

"… digital banking has significantly changed the banking environment. Now transactions can be competed from anywhere at any point in time. For example, during the Covid-19 pandemic, banks kept on operating digitally despite the lockdown measures. The more transaction that are conducted, the more the revenue we get and the more profitable we become. No one wants to visit

the bank and stand in a queue to collect hard cash, with ATMs and POS, customers can easily conduct transactions and banks with such services can attain more customers. Basically, digital banking has resulted in reductions in cost associated with physical branches such as labour, paper work etc……"

4.5.1 Inferential statistics

This section of the study presents the Pearson correlation test results to confirm the relationships between the study variables based on the responses obtained from the survey. The test, as stipulated in the previous chapter was also used to ascertain the direction and the significance of the relationship between digital banking and bank performance. In conducting the test, data collected from the survey were coded according to the Likert scales used in data collection. The data collected was categorised into two constructs and these represented the study variables. Coded data collected on each construct were summed for each respondent and divided by the number of questions in each construct and the resultant figure represented the construct for each respondent. For example, the variable digital banking adoption was comprised of 7 Likert scale questions. Responses obtained from one respondent on each question were summed up and divided by 7 to come up with a single figure that represented the overall response on the extent of the adoption of different forms of digital banking. This was done for all responses and constructs thus providing the researcher with 2 data sets representing the two major variables performance and digital banking. These resultant constructs were then used in testing relationships using the Pearson correlation analysis.

In interpreting the results of the analysis, the researcher used probability values (p-values) and a 5% significance level was used. This, therefore, entails that a p-value less than 0.05 shows a significant relationship and the sign of the coefficient represented the direction of the relationship. The results obtained with regard to the test are presented in Table 4.8 below.

Table 4.8: Correlation test results

Correlations			
		Digital Banking	Bank Performance
Digital Banking	Pearson Correlation	1	.503**
	Sig. (2-tailed)		.000
	N	47	47
Bank Performance	Pearson Correlation	.503**	1
	Sig. (2-tailed)	.000	
	N	47	47
**. Correlation is significant at the 0.01 level (2-tailed).			

S*ource: Survey 2022*

From Table 4.7 above, it can be noted that the analysis produced a positive Pearson correlation coefficient of 0.503 and a p-value of 0.000. This, therefore, implies that there is a positive and significant relationship between digital banking and bank performance.

It can be noted that the findings from the questionnaires corroborate those obtained from the interviews conducted by the researcher. Moreover, the findings of the study are in sync with Ciciretti et al. (2008) who argued that digital or electronic banking provides banks with greater opportunities for revenue generation because it allows them to generate income from non-interest sources in addition to interest sources. According to the authors, the advent of accessible and convenient e-banking services and products has enabled banks to attract new consumers, helping them to increase their market share and consequently enhancing revenue generation. In addition, the findings of the study are also supported by Dew (2012) who also stressed that digital banking enhances revenue generation through fee-based income. For example, according to the author, if a bank joins an ATM network, it can generate revenue from the customers of other banks that use its ATMs, as well as from third parties that cooperate with it. The greater the number of transactions with a third party, the greater the fee-based money earned, so compelling the bank to expand the functionality of e-banking transactions to include mobile phone top-ups, ticketing, payment of telephone or power bills, and payment of property taxes.

Furthermore, the research findings are in sync with Vekya (2017) who discovered that the adoption of digital banking such as the use of ATMs increases the profitability of banks. In addition, Kimani (2015) also discovered that mobile banking positively impacts the operational efficiency of

commercial banks thus reducing costs and at the same time increasing profitability and returns on both investment and equity. Also, in support of the study findings are Tawfik and Albrecht (2008) and Shar and Clarke (2009) who argued that electronic banking systems give banks the capability to develop and design products for diverse market sectors. In addition, the correlation test results are also supported by Azmi et al. (2020) who also found out that digital banking was positively linked with bank performance.

4.6 Challenges associated with digital banking to the performance of banks

The third objective of the study sought to explore challenges associated with digital banking to the performance of commercial banks in the study area. To achieve this objective, respondents were asked to indicate the extent to which their banking institutions faced the predetermined challenges as shown in Table 4.9 below. Using the same criteria of means and standard deviations as used in the previous section, the following results were obtained.

Table 4.9: Challenges associated with digital banking

Challenge	1	2	3	4	5	Mean	St. dv
Lack of awareness of digital banking services	0%	0%	25.5%	59.6%	14.9%	**3.8936**	**0.63362**
Uncertainty	0%	4.3%	34%	48.9%	12.8%	**3.7021**	**0.74934**
Lack of HR and skills	17%	59.6%	21.3%	2.1%	0%	**2.0851**	**0.68619**
Set-up costs and pricing issues	0%	2.1%	23.4%	57.4%	17%	**3.8936**	**0.69888**
High cost of development	0%	0%	4.3%	63.8%	31.9%	**4.2766**	**0.53981**
Legal and liability issues	23.4%	53.2%	19.1%	4.3%	0%	**2.0426**	**0.77900**
Lack of infrastructure	0%	0%	19.1%	68.1%	12.8%	**3.9362**	**0.56738**

Source: Survey 2022

According to the findings presented above, the most prevalent challenge according to the respondents was high cost of development with a mean score of 4.2766. This was followed by lack of infrastructure (3.9362), lack of awareness of digital banking services (3.8936), set-up costs and

pricing issues (3.8936), uncertainty about the benefits of digital banking (3.7021), lack of HR and skills (2.0851) and the least being legal and liability issues with a mean score of 2.0426.

During the interviews conducted with key informants, it also emerged that commercial banks in the study also faced challenges associated with poor and inadequate telecommunications infrastructure, limited knowledge of digital banking among consumers, poor internet knowledge, usage and availability, low credit card penetration, poor internet connectivity and lack of established telephone lines. Moreover, respondents also mentioned concerns regarding legal and security issues, high costs associated with setting up systems, the limited reach of cellular services as well as low literacy levels.

These findings are in sync with Sumra et al. (2011) who also discovered that low literacy levels and limited telephone services are among some of the challenges that banks face with regard to digital banking. In addition, findings are also supported by Kapurubandara (2009) who also discovered that the lack of awareness of digital banking, suitable digital banking infrastructure as well as connectivity issues act as challenges to banks when it comes to digital banking.

4.7 Chapter summary

The chapter presented the study findings in line with the objectives of the study, the methodology and the research instruments used to collect data. Specifically, the chapter began by presenting the response rate followed by the demographic characteristics of respondents, descriptive statistics, as well as inferential statistics. The following chapter presents the study summary, conclusions recommendations as well as suggestions for areas of further study.

CHAPTER 5

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

The previous chapter presented, analysed and discussed the findings of the study. This chapter serves to present the study summary, conclusions and recommendations based on the findings of the study. In addition, the chapter also presents suggestions for areas for future studies to delve into based on the research gap that the study has created.

5.1 Summary of the study

The study sought to determine the impact of digital banking on the performance of Zimbabwean banks located in Harare. The study was guided by four specific objectives which were to establish the nature of digital banking available in banks in Harare, to determine the impact of digital banking on the performance of banks in Harare, to explore challenges associated with digital banking to the performance of banks in Harare and to recommend possible measures to curb the challenges posed by digital banking on the performance of banks in Harare. To achieve these objectives, the study adopted a pragmatism research philosophy and in line with this philosophy, the study also adopted a descriptive survey research design and a mixed methodology research approach in which both interviews and questionnaires were used to collect data from a target population of 52 respondents drawn from 13 commercial banks located in Harare. However, only 90.38% of the targeted population responded in time for data analysis.

With regard to the nature of digital banking in the target area, the findings of the study revealed that different forms or types of digital banking were being utilized by commercial banks. These included mobile banking, internet banking, home banking, webpages, telephone banking, television banking and ATMs. These according to the findings of the study varied with respect to their utilisation with the most common being mobile banking followed by internet banking, ATM and the least being home banking.

In addition, the findings of the study also revealed that digital banking plays a crucial role in enhancing revenue generation, bank profitability, customer satisfaction, and customer retention and market share. It also emerged that digital banking improves efficiency, results in cost savings and creates cross-selling opportunities for commercial banks. Pearson correlation test results also revealed a positive and significant relationship between digital banking and bank performance.

Furthermore, the study also found that banks face considerable challenges associated with the utilisation and adoption of digital banking which might be hindering them from obtaining the most from digitalisation. These according to the findings of the study included the lack of awareness of digital banking services, uncertainty about the benefits of digital banking, high set-up and development costs and legal, security and liability issues. Additionally, research findings also revealed challenges related to poor and inadequate telecommunications infrastructure, limited knowledge of digital banking among consumers, poor internet knowledge, usage and availability, low credit card penetration, poor internet connectivity and lack of established telephone lines.

5.2 Conclusion

Based on the findings of the study, the researcher, therefore, concludes that digital banking has developed over the years and is penetrating the market in so many ways and its nature is diverse. In addition, the researcher also concludes that the adoption of digital banking by commercial banks enhances bank performance in many ways and banks that extensively digitalise their banking operations and services perform better than those that do not. Despite the benefits brought about by the adoption of digital banking, banks still face challenges, and these are cost related, customer related as well as internal and these seem to be hindering the process of digitalisation and preventing banks from enjoying the full fruits of digital banking.

5.3 Recommendations

The study revealed that there is a positive and significant relationship between the extent of the ulitisation of digital banking and performance. In this regard, commercial banks are advised to embrace more forms of digital banking and increase their penetration. In addition, banks are also recommended to develop user friendly digital platforms so as to serve all demographics that are currently marginalised as a result of education and other demographic characteristics that might

hinder the adoption of digital banking. Customers should also be conscientised and educated on the different digital banking platforms at their disposal in order to scale up penetration and adoption. Again, based on the findings of the study, the researcher recommends commercial banks to partner with telecommunications organisations in order to eradicate challenges associated with telecommunication infrastructure as well as internet connectivity issues.

Additionally, according to the BUPSML Act(24:24),(2004) shall promote the use of banking systems and digital banking being one of them.However,the act postulate that banks should regulate the abuse of banking services through laundering illicit money. This helps in identification of a criminal, tracing ,seizure and confistication of hidden tainted property.

5.4 Suggestions for areas of further study

The study has managed to capture the impact of digital banking on the performance of banks and used primary data collected in Harare for analysis. In this regard, the researcher recommends further studies to be conducted in other regions of the country or countrywide. In addition, the researcher also suggests further studies to use secondary quantitative data to capture performance for example the use of ROA, ROE, sale or profit among other performance measures as proxies for bank performance in regression analysis.

LIST OF REFERENCES

Adami, M.F. and Kiger, A., 2005. The use of triangulation for completeness purposes. *Nurse researcher*, *12*(4).

Aduda, J. and Kingoo, N., 2012. The relationship between electronic banking and financial performance among commercial banks in Kenya. *Journal of finance and investment analysis*, *1*(3), pp.99-118.

Akhisar, I., Tunay, K.B. and Tunay, N., 2015. The effects of innovations on bank performance: The case of electronic banking services. *Procedia-Social and Behavioral Sciences*, *195*, pp.369-375.

Amaratunga, D., Baldry, D., Sarshar, M. and Newton, R., 2002. Quantitative and qualitative research in the built environment: application of "mixed" research approach. *Work study*.

Antwi, S.K. and Hamza, K., 2015. Qualitative and quantitative research paradigms in business research: A philosophical reflection. *European journal of business and management*, *7*(3), pp.217-225.

Anti-Money Laundering guidance for notes for the finance sector by the jersey Financial services commission *Bank Use Promotion and Suppression of Money Laundering Act* (Chapter 24:24),2004

Bagudu, H.D., Mohd Khan, S.J. and Roslan, A.H., 2017. The effect of mobile banking on the performance of commercial banks in Nigeria. *International Research Journal of Management, IT & Social Sciences*, *4*(2), pp.71-76.

Blumberg, B., Cooper, D. and Schindler, P., 2014. *EBOOK: Business Research Methods*. McGraw Hill.

Clark-Kazak, C., 2019. Developing ethical guidelines for research. *Ethics*.

Connelly, L.M., 2014. Ethical considerations in research studies. *Medsurg Nursing*, *23*(1), pp.54-56.

Creswell, J.W., 2013. Steps in conducting a scholarly mixed methods study.

Dieronitou, I., 2014. The ontological and epistemological foundations of qualitative and quantitative approaches to research. *International Journal of Economics*, *2*(10), pp.1-17.

El-Chaarani, H. and El-Abiad, Z., 2018. The impact of technological innovation on bank performance. *El-CHAARANI H. and El-Abiad*, (2018).

Kahveci, E. and Wolfs, B., 2018. Digital banking impact on Turkish deposit banks performance. *Banks & bank systems*, (13, Iss. 3), pp.48-57.

Khan, H.F., 2021. E-Banking System Benefits and Issues. *Insights into Economics and Management Vol. 11*, pp.40-48.

Kaushik, V. and Walsh, C.A., 2019. Pragmatism as a research paradigm and its implications for social work research. *Social sciences*, *8*(9), p.255.

Kombe, S.K. and Wafula, M.K., 2015. Effects of internet banking on the financial performance of commercial banks in Kenya a case of Kenya Commercial Bank. *International Journal of Scientific and Research Publications*, *5*(5), pp.1-10.

Kothari, C. and Garg, G., 2014. Research Methodology: Methods and Strategy. *New age international*.

Leedy, P.D. and Ormrod, J.E., 2013. Practical research: planning and design. 10th.

Maduku, D.K., 2014. Customers' adoption and use of e-banking services: the South African perspective. *Banks & bank systems*, (9, Iss. 2), pp.78-88.

Mazana, R., Rupere, T. and Kabanda, G., 2016. An assessment of the impact of self-service technology (SST) on firm performance: Case study of a bank in Zimbabwe (2009–13). *Journal of Payments Strategy & Systems*, *10*(1), pp.96-112.

Mehmood, B., Nisar, A. and Rehman, H.U., 2015. Technology matters: Evidence from Pakistani banking sector using flexible transcendental logarithmic production function. *Pakistan Economic and Social Review*, pp.203-224.

Ranney, M.L., Meisel, Z.F., Choo, E.K., Garro, A.C., Sasson, C. and Morrow Guthrie, K., 2015. Interview-based qualitative research in emergency care part II: Data collection, analysis and results reporting. *Academic Emergency Medicine*, *22*(9), pp.1103-1112.

Rawwash, H., Masad, F., Enaizan, O., Eneizan, B., Adaileh, M., Saleh, A. and Almestarihi, R., 2020. Factors affecting Jordanian electronic banking services. *Management Science Letters*, *10*(4), pp.915-922.

Sobočan, A.M., Bertotti, T. and Strom-Gottfried, K., 2019. Ethical considerations in social work research. *European Journal of Social Work*, *22*(5), pp.805-818.

Teddlie, C. and Tashakkori, A., 2009. *Foundations of mixed methods research: Integrating quantitative and qualitative approaches in the social and behavioral sciences*. Sage.

Thanasegaran, G., 2009. Reliability and Validity Issues in Research. *Integration & Dissemination*, *4*.

Tsang, E.W., 2014. Generalizing from research findings: The merits of case studies. *International Journal of Management Reviews*, *16*(4), pp.369-383.

Wadesango, N. and Magaya, B., 2021. Literature Review on the Impact of Digital Banking Services on Performance of Commercial Banks. *African Journal of Development Studies (formerly AFFRIKA Journal of Politics, Economics and Society)*, *11*(2), pp.149-162.

Whyte, W.F., 2003. Interviewing in field research. In *Field research* (pp. 183-201). Routledge.

Xerri, D., 2017. Using questionnaires in teacher research. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, *90*(3), pp.65-69.

Zohrabi, M., 2013. Mixed method research: Instruments, validity, reliability and reporting findings. *Theory and practice in language studies*, *3*(2), p.254.

APPENDICES

APPENDIX I: AUTHORISATION LETTER

Bindura University of Science Education
P.Bag 1020
Bindura

…...../……. / 2022

Re: Analysing the impact of digital banking on the performance of Zimbabwean banks. A survey of Harare CBD.

Dear respondent

My name is Shyleen Mazodze. I am a student of Bindura University of Science Education perusing a Bachelor of Commerce Hons Degree in Financial Intelligence. It therefore a requirement for the completion of a degree program that a student should carry out a research problem of his or her own choice which will be subject to approval by the University Authority. As such, I am conducting a research on "Analysing the impact of digital banking on the performance of Zimbabwean banks. A survey of Harare CBD."with the following objectives**.**

- To establish the nature of digital banking available in banks in Harare.
- To determine the impact of digital banking on the performance of banks in Harare
- To explore challenges associated with digital banking to the performance of banks in Harare
- To recommend possible measures to curb the challenges posed by digital banking on the performance of banks in Harare.

You are courtesly requested to assist in this research by giving a truthful completed questionnaire provived.The information that you are going to provide shall be purely be used for academic purposes. The information shall absolutely be used in a confidential manner. I would greatly appreciate if your completed questionnaires are returned in earliest possible time. For more information contact 0774 770 332.Your feedback and cooperation is of paramount importance and greatly appreciated.

Yours faithful

Shyleen Mazodze

APPENDIX III: QUESTIONNAIRE FOR SENIOR EMPLOYEES

SECTION A: DEMOGRAPHICS PROFILE

1. Gender **(Select only one.)** ☐ Female ☐ Male	**2. Age** **(Select only one.)** ☐ 25 or less ☐ 26-30 ☐ 31-40 ☐ 41-50 ☐ above 50
3. Educational Status **(Select all that apply.)** ☐ High School ☐ Certificate ☐ Diploma ☐ Degree ☐ Masters ☐ Other: Specify ……	**4. Years of experience in banking** **(Select only one.)** ☐ 5 years or less ☐ 6 – 10 Years ☐ 11 – 15 Years ☐ 16 – 20 Years ☐ Above 204 Years

Section B: To establish the nature of digital banking available in banks in Harare

Q1) What is the nature of digital banking available in banks in Harare? Please indicate whether the following types of digital banking services are used in your bank.

Nature/ type of digital banking	Response (Tick if used in your Bank)
Internet banking	
Home banking	
Webpages	
Telephone banking	
Television banking	
Mobile banking	
ATM	

Other(Specify)……
……
……
……

……
……

Please indicate the extent to which the following forms of digital banking are used in your organisation. *Indicate the extent on a scale of 1-5 where 1=very little extent, 2=little extent, 3=moderate extent, 4=large extent, 5=very large extent*

Type of digital banking	**1**	**2**	**3**	**4**	**5**
Internet banking					
Home banking					
Webpages					
Telephone banking					
Television banking					
Mobile banking					
ATM					

Other(Specify)……
……
……
……
……
……

Section C: To determine the impact of digital banking on the performance of banks in Harare

Q2) What is the impact of digital banking on the performance of banks in Harare? Please indicate your level of agreement with the following statement on the impact of digital banking on the performance of your organisation. *Indicate your level of agreement on a scale of 1-5, where 1=strongly disagree, 2=disagree, 3= not sure, 4= agree and 5= strongly agree*

Statement	**1**	**2**	**3**	**4**	**5**
Digital banking enhanced revenue generation					
Digital banking results in profitability					
Digital banking increases market share					
Digital banking improves efficiency					
Digital banking results in cost savings					
Digital banking creates cross-selling opportunities					

Other(Specify)……
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Section D: To explore challenges associated with digital banking to the performance of banks in Harare

Q3) What are the challenges associated with digital banking to the performance of banks in Harare. Please indicate the extent to which the following challenges regarding digital banking are faced by your organisation. *Indicate the extent on a scale of 1-5 where 1=very little extent, 2=little extent, 3=moderate extent, 4=large extent, 5=very large extent.*

Challenge	**1**	**2**	**3**	**4**	**5**	**Mean**	**St. dv**
Lack of awareness of digital banking services	0%	0%	25.5%	59.6%	14.9%	3.8936	0.63362
Uncertainty	0%	4.3%	34%	48.9%	12.8%	3.7021	0.74934
Lack of HR and skills	17%	59.6%	21.3%	2.1%	0%	2.0851	0.68619
Set-up costs and pricing issues	0%	2.1%	23.4%	57.4%	17%	3.8936	0.69888
High cost of development	0%	0%	4.3%	63.8%	31.9%	4.2766	0.53981
Legal and liability issues	23.4%	53.2%	19.1%	4.3%	0%	2.0426	0.77900
Lack of infrastructure	0%	0%	19.1%	68.1%	12.8%	3.9362	0.56738

Other(Specify)……
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APPENDIX IV: INTERVIEW GUIDE FOR MANAGEMENT

1. What is the nature of digital banking available in banks in Harare?

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2. What is the impact of digital banking on the performance of banks in Harare?

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3. What are the challenges associated with digital banking to the performance of banks in Harare

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4. What are the possible measures that can be adopted to curb the challenges posed by digital banking on the performance of banks in Harare?

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