STRATEGIES INFLUENCING FINANCIAL DEEPENING IN FINANCIAL INSTITUTIONS: A CASE OF COMMERCIAL BANK OF AFRICA LIMITED

BY

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UNITED STATES INTERNATIONAL UNIVERSITY- AFRICA

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PHILLIP KAYONGO

A Research Project Report Submitted to the Chandaria School of Business in Partial Fulfilment of the Requirement for the Degree of Master of Business Administration (MBA)

UNITED STATES INTERNATIONAL UNIVERSITY - AFRICA

SUMMER 2017
STUDENT’S DECLARATION

I, the undersigned, declare that this is my original work and has not been submitted to any other college, institution or university other than the United States International University - Africa in Nairobi for academic credit.

Signed: ___________________________ Date: _________________________

Phillip Kayongo (ID NO: 626439)

This research project report has been presented for examination with approval as the appointed supervisor.

Signed: ___________________________ Date: _________________________

Dr. Joyce Ndegwa

Signed: ___________________________ Date: _________________________

Dean, Chandaria School of Business
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ABSTRACT
This study examined the challenges faced by commercial banks that were associated with financial deepening. The study was guided by the study objectives that sought to: examine the influence of financial literacy on financial deepening at Commercial Bank of Africa (CBA) Limited, to determine the influence of network access on financial deepening at CBA Limited, and to examine the influence of technology on financial deepening at CBA Limited.

Descriptive design was used to identify the relationship between strategies (independent variable) influencing financial deepening (dependent variable) at CBA. The target population of the study was all the 136 employees of CBA, and the sampling frame was the official list of employees that was acquired from the organization’s Human Resource Department. Census sampling technique was used in the study because it involves all the population elements and it ensured that the results could be applied to the entire organization. The sample size for the study was 136 because of the defined sampling technique. Primary data for the study was obtained through the administration of questionnaires that were designed according to the specific objectives of the research. The questionnaire was pre-tested to gauge its appropriateness using the Cronbach Alpha. Data was analysed using Statistical Package for Social Sciences (SPSS). Descriptive statistics which included frequencies and percentages that were calculated for easier interpretation of the results. Inferential analysis of correlations and regression analysis were used to examine the existing relationship between the study variables. The study results and findings were presented in the form of figures and tables.

The study illustrated that financial deepening strategies at CBA focused on consumer financial literacy so as to ensure financial stability, and financial education had greatly helped consumers to find the information that they needed. Financial deepening strategies at CBA focused on ensuring financial accessibility and product/service awareness. The financial deepening content at CBA concentrated on awareness regarding different forms and purposes of money used by its customers, it concentrated on teaching its consumers about financial products and processes they could use to manage risks, as well as about substitutes for financial products such as buying property, livestock or saving in banks, but it did not concentrate on awareness regarding the use of ATM machines for financial purposes.
The study revealed that regulatory burdens and the lack of infrastructure influenced the organization in expanding its banking services even though the firm was not reluctant in investing in matters of financial literacy and digital infrastructure for regional expansion. CBA had introduced “basic accounts” to facilitate simple access to deposit and payment services to its customers, and it did not impose account balances that would facilitate its customers accessing other banking products. The study indicated that the organization had promoted financial digitalization in order to facilitate customers’ access to banking, and it had “correspondents” or ‘service points” that offered a limit set of financial services acting as representatives of the organization.

The study established that IT had enhanced the competitive efficiency of the bank by strengthening its back-end and front-end administrative processes, and this had made the firm become actively involved in harnessing technology for the development of its banking services. CBA utilized Core Banking Solutions (CBS) to enable its customers operate their accounts from any branch of the Bank, regardless of where their accounts were held, and this ensured the firm delivered quality and efficient services to its customers, as well as the deployment of low cost ATMs that offered basic features such as cash withdrawal and balance enquiry for its customers.

The study concludes that financial literacy programs at CBA stemmed from lessons learnt from the organizations past experience, and it collected IT components to facilitate its ability to conduct its business effectively and efficiently, like the use of payments technology (transmission of payment messages, payment clearing and payment settlement) to ensure its customers were able to conduct their financial transactions at low-costs. The bank also used branchless banking in the form of mobile phone applications to provide cost effective methods of reaching out to its customers on a broad scale.

The study recommends CBA management to focus on introducing biometric ATMs and touch pads to enable the illiterate and semi-literate customers to open accounts with the bank, and to facilitate their ability to access and make use of ATM services. CBA management should also focus on creating business correspondents that will support the bank in extending its financial services and operations to local areas and residences.
ACKNOWLEDGEMENT

I sincerely acknowledge the God Almighty, for it is by His Grace and Favour that I have managed to complete my MBA programme. I would also like to acknowledge my supervisor Dr. Joyce Ndegwa for her guidance and support throughout this project.
DEDICATION

I dedicate this research project to my mother Evelyn Karamagi who has constantly prayed for me and encouraged me throughout this MBA programme.
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<tr>
<td>ASCAs</td>
<td>Accumulating Savings and Credit Associations</td>
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<td>ATM</td>
<td>Automated Teller Machine</td>
</tr>
<tr>
<td>BC</td>
<td>Business Correspondent</td>
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<tr>
<td>CBA</td>
<td>Commercial Bank of Africa Limited</td>
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<td>CBK</td>
<td>Central Bank of Kenya</td>
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<td>CBS</td>
<td>Core Banking Solutions</td>
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<td>DFID</td>
<td>Department for International Development</td>
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<td>EA</td>
<td>East Africa</td>
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<tr>
<td>FSDK</td>
<td>Financial Sector Deepening Trust Kenya</td>
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<tr>
<td>GDP</td>
<td>Gross Domestic Products</td>
</tr>
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<td>IMF</td>
<td>International Monetary Fund</td>
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<td>IT</td>
<td>Information Technology</td>
</tr>
<tr>
<td>MFIs</td>
<td>Micro-Finance Institutions</td>
</tr>
<tr>
<td>MNOs</td>
<td>Mobile Network Operators</td>
</tr>
<tr>
<td>NGOs</td>
<td>Non-Governmental Organizations</td>
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<tr>
<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
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<tr>
<td>PI</td>
<td>Price Index</td>
</tr>
<tr>
<td>PIN</td>
<td>Personal Identification Number</td>
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<tr>
<td>POS</td>
<td>Point-of-Sale</td>
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<tr>
<td>ROSCA s</td>
<td>Rotating Savings and Credit Associations</td>
</tr>
<tr>
<td>SACCOs</td>
<td>Savings and Credit Cooperative Organizations</td>
</tr>
<tr>
<td>SFOM</td>
<td>Societe Financiere pour les pays D’Outre Mer</td>
</tr>
<tr>
<td>SMS</td>
<td>Short Message Service</td>
</tr>
<tr>
<td>SPSS</td>
<td>Statistical Package for Social Science</td>
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<tr>
<td>SSA</td>
<td>Sub-Saharan Africa</td>
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<td>US</td>
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CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of the Problem

The link between financial development and economic growth known as the “finance-growth nexus” has long received significant attention in economics (Levine, 2015). Within the finance-growth nexus literature, there are arguments that financial intermediaries mobilize, pool and channel domestic savings into productive capital, and by doing so they contribute to economic growth (Levine, Loayaza & Beck, 2010). Brock and Durlauf (2014) state that, if this view is to be accepted, then a competitive and well-developed banking sector must be an important contributor to both regional and/or national economic growth. In a competitive banking sector, borrowing rates are higher and lending rates are lower, so the transformation of household savings into productive capital investment is faster (Clarke, 2014). On the other side of this debate is an argument that financial development is a consequence, and not a cause, of economic growth. In this view, economic growth increases demand for sophisticated financial instruments, which in turn leads to growth in the financial sector (Levine, Loayaza & Beck, 2010).

Financial development not only promotes economic growth but can also help divide it more evenly. Certain forms of financial development, particularly those that broaden access to finance, can benefit the poor disproportionately by increasing capital flow and increasing efficiency of capital allocation thereby reducing inequality (Clarke, 2014; Brock & Durlauf, 2014). By targeting financial market imperfections such as asymmetric information and costs associated with transactions and contract enforcement and creating enabling conditions for financial markets and instruments to develop, governments can not only spur growth and also help to ensure it is distributed more evenly (Balakrishnan, Steinberg & Syed, 2013). Better access to credit by the poor enables them to pull themselves out of poverty by investing in their human capital and microenterprises, thus reducing aggregate poverty (Ayyagari, Beck & Hoseini, 2013). Financial deepening has a significant impact on poverty reduction through channels such as entrepreneurship and the inter-state migration of workers towards financially more developed states (Han & Melecky, 2013).
Financial deepening is defined as the increased provision of financial services with a wider choice of services geared for all levels of individuals in a society, and it includes the unbanked and underbanked in a society (Shaw, 1973). It includes the development of financial markets, increasing the number of financial institutions and increasing the diversity in financial instruments (Han & Melecky, 2013). Financial deepening can also refer to the improvement or increase of financial services that are tailored to all the levels in the society (Balakrishnan, Steinberg & Syed, 2013), and also refers to the increase in the ratio of money supply to Gross Domestic Products (GDP) or Price Index (PI) which ultimately postulates that the more liquid money is available in the economy, the more opportunities exist in that economy for continued and sustainable growth (Ayyagari, Beck & Hoseini, 2013).

Financial deepening enables financial institutions to perform their functions of mobilizing, pooling and channelling domestic savings into productive capital more effectively thereby contributing to economic growth of a country (Brock & Durlauf, 2014). In addition to mobilizing savings and improving capital allocation, financial deepening reduces the extent and significance of information asymmetries (Han & Melecky, 2013), and allows for risk transformation and monitoring (Levine, 2015).

Financial development can protect against risks during an economic downturn, and more broadly, it can boost growth and dampen the impact of shocks for firms and households by alleviating borrowing constraints, and help to calibrate dollar liabilities (Krishnamurthy & Caballero, 2011). However, financial deepening in lower-income countries is uneven, especially in the regional case of Sub-Saharan Africa (SSA). Many SSA economies have seen significant financial innovation (Han & Melecky, 2013). Private sector credit has experienced its median ratio to GDP increase by 10 percentage points from 1995 to 2014 (though at 21%, it is still around only half of that in the Middle East and North Africa, and East Asia) (IMF, 2016).

For lower-income households and firms, microfinance has enabled financial deepening, and mobile banking services, such as M-Shwari and M-Pesa in Kenya, have promoted stronger domestic banking systems, reducing the reliance on informal savings mechanisms (Mbiti & Weil, 2011). Yet SSA’s efforts towards financial deepening have fallen behind. Only 34% of the population have bank accounts, compared to 94% in high-
income Organisation for Economic Co-operation and Development (OECD) countries. While only 7.3% of the SSA population report using an account to receive their wages (IMF, 2016). Low coverage extends to South East Asia: Vietnam and Cambodia’s share is a respective 21.1% and 3.3% of their (over 25) populations (IMF, 2016).

The Kenyan financial sector is composed of the banking sector, Micro-Finance Institutions (MFIs), Savings and Credit Cooperative Organizations (SACCOs), money transfer services, and the informal financial services sector comprising of Rotating Savings and Credit Associations (ROSCAs) and Accumulating Savings and Credit Associations (ASCAs). This can be divided into formal, other formal and informal. The demarcation between these categories is primarily an institutional one: the formal are prudentially regulated, while the other formal are simply registered under law and the informal are unregistered (CBK, 2015). The main regulator of the financial market in Kenya is the Central Bank of Kenya (CBK), and the country’s financial services market is relatively well-developed. Competition is strong amongst a diverse group of service providers that has moved deeper into the low-income market over the last five years (CBK, 2016).

The Financial Sector Deepening Trust Kenya (FSDK) programme, was established with support from Department for International Development (DFID) in 2005 to stimulate wealth creation and reduce poverty by expanding access to financial services for lower income households and smaller scale enterprises (IMF, 2016). According to IMF (2017), the programme works with a range of financial institutions, business service providers and support institutions. Kenya’s financial services market is relatively well-developed. Competition is strong amongst a diverse group of service providers that have moved deeper into the low-income market over the last five years, in part thanks to FSDK interventions (Mbiti & Weil, 2011). From 2006 to 2009, overall financial deepening increased from 58.7% to 67.3% (IMF, 2016). Gains have come from the introduction of mobile money and the responding rollout of branchless agency banking models by commercial banks competing for the mass market space (CBK, 2016). Kenyan regulators have also been instrumental in introducing appropriate regulations to facilitate low-income banking and strengthen SACCOs and MFIs (IMF, 2017).
Although the country is performing well in terms of financial deepening, Kenya is now struggling to promote an interoperable agent network because of Safaricom’s control over the mobile money market (although that position also stems from Safaricom’s large share of the overall telecoms market), and FSDK is exploring ways to promote further branchless banking innovation to avoid a low-level trap where *M-Pesa* dominance causes market stagnation (Mbiti & Weil, 2011). FSDK is also considering how to use subordinated debt instead of grants as a way to reduce market distortions while sharing the risk of product innovations with individual companies (CBK, 2016).

Market development requires time, intellectual rigour, and multifaceted interventions - not necessarily large budgets. Microsave, an FSDK supported capacity building project for MFIs, has caused a “paradigm shift” in microfinance thinking and practice, and significantly influenced at least 50 financial service providers. Further support of financial deepening in the country will require knowledge-based programmes that will be human resource intensive (CBK, KNBS & FSDK, 2016). However, FSD-Kenya has shown that financial deepening overheads can be kept low relative to programme scope through leveraging market partnerships and strategic outsourcing (IMF, 2017). This study focuses of financial deepening strategies and factors influencing them at Commercial Bank of Africa Limited (CBA).

CBA is the largest privately owned bank in East Africa (EA) and has been operating for over 50 years, and it was founded in Tanzania and branches were set up in Kenya and Uganda. The bank began as a subsidiary of *Societe Financiere pour les pays D’Outre Mer* (SFOM), a Swiss-based consortium bank (CBA, 2017). In 1980, Bank of America bought out all of SFOM’s partners and restructured CBA to mirror their own systems and disciplines before selling its majority shares to local investors, and it has since developed a reputation as the go-to provider for large corporations, institutions, diplomatic missions, Non-Governmental Organizations (NGOs), and high net-worth private clients (CBA, 2017).

In 2011, CBA began a drive towards innovation in the banking space, pushing its product team to pioneer new developments that cater to a wider local audience. The bank the pioneer of bringing full digital banking channels in the Kenyan market by being the first bank to adopt the *M-Pesa* and *M-shwari* products, the bank to produce United States (US)
dollar credit cards in Kenya, and the first bank to offer foreign currency based mortgage to its customers (CBA, 2017). As a world-class financial services provider, CBA offers clients a vast range of products and services that are both tailored to local needs and inspired by global innovation (CBA, 2017).

1.2 Statement of the Problem

The challenge of inadequate financial deepening is not just for the developing economies alone, from the emerging to high-income countries, government conceive and implement policies that seek to ensure majority of the population become financially deepened (Brock & Durlauf, 2014). Beyond the non-robustness and inefficiencies of the financial system which contributes to the act of financial deepening, the more fundamental issue of sub-optimal macroeconomic environment in the form of low income capacity and pervasive poverty level among the populace has played a more critical role of eroding the eligibility of the bulk of the financially excluded (Han & Melecky, 2013).

A major challenge in the financial deepening process is how to ensure that the poor rural dwellers are carried along considering the lack of financial literacy sophistication among this segment of the society due to the general low level of financial literacy (Krishnamurthy & Caballero, 2011). Majority of the estimated financially excluded population lack knowledge of the services and benefits derivable from accessing financial services (Levine, 2015), while staff of the service providers often display lack of adequate understanding of the services and so unable to educate effectively (Levine, Loayaza & Beck, 2010). In fact sub-optimal outcome from attempts to increase customer awareness is reflected in the lack of appreciable progress in the literacy level of the populace (Han & Melecky, 2013; Krishnamurthy & Caballero, 2011).

Another challenge that is of great concern is the largely inefficient networks in terms of e-channel services of most of the financial deepening programs (Samolyk, 2014). The various e-channels and applications such as Automated Teller Machine (ATM), Point-of-Sale (POS), and mobile banking platforms that are supposed to facilitate electronic transactions have remained deficient in most cases (Clarke, 2014). Most subscribers to internet and mobile banking platforms in rural areas of SSA complain of poor services (Brock & Durlauf, 2014). This challenge manifests itself generally in form of inadequate financial infrastructure especially in the rural areas where the bulk of the financially
excluded are found and therefore limits options for accessing financial services (Samolyk, 2014).

Information and telecommunication knowledge is still low in the country, making access to financial services difficult. Inadequacy and inappropriateness of awareness campaign sometimes inhibit the level understanding of financial transactions and ability of the illiterate to take advantage of the possibilities in financial services (Brock & Durlauf, 2014). Ayyagari, Beck and Hoseini (2013) state that, critical to awareness is the difference in language of the target population and the language of education and therefore reduces effectiveness of communication. Balakrishnan, Steinberg and Syed (2013) also reiterate that, a uniformed population cannot effectively use financial services, thus influencing the level of financial deepening in the country.

In view of the intricacies and expertise required, financial deepening strategies should now focus more on instituting a systematic approach, which aligns roles and responsibilities with institutions and frameworks to guarantee continuity, sustainability and efficiency (Ayyagari, Beck, & Hoseini, 2013). In view of this, this study focused on various strategies that influenced financial deepening in Kenya with a primary focus on financial literacy, network access and communication access, and the service quality on financial deepening offered by Commercial Bank of Africa Limited.

1.3 General Objective
The study sought to determine strategies influencing financial deepening in financial institutions with a key focus on Commercial Bank of Africa Limited.

1.4 Specific Objectives
This study was guided by the following study objectives:

1.4.1 To examine the influence of financial literacy on financial deepening at Commercial Bank of Africa Limited.
1.4.2 To determine the influence of network access and communication access on financial deepening at Commercial Bank of Africa Limited.
1.4.3 To examine the influence of technology on financial deepening at Commercial Bank of Africa Limited.
1.5 Significance of the Study

1.5.1 The Management of CBA
The senior management of CBA meets monthly to discuss various issues affecting the organization. This study may enable them to come up with proper strategies while formulating new and existing products to facilitate financial deepening, since the study focused on the factors that influenced financial deepening in the organization, and management may use the recommendations offered to improve on their existing strategies.

1.5.2 The Central Bank of Kenya (CBK)
The Commercial Bank regulator CBK has a better platform of understanding the impact commercial banks in Kenya have to the growth of the economy while offering financial deepening. Therefore, this study may enable them formulate policies that protect commercial banks as they offer and increase financial deepening, as well as provide policies that would highly encourage commercial banks to pick-up financial deepening across the country.

1.5.3 Academicians
Students interested in this study have the opportunity to appreciate the role of commercial banks in Kenya in offering financial deepening. This study may be beneficial to those students who would wish to carry out further research in challenges affecting commercial banks while offering financial deepening. This study has shed more light on the challenges Commercial Banks face while offering financial deepening, and will recommends gaps that future academicians may pursue on the same.

1.6 Scope of the Study
This study was carried out at CBA. CBA is the largest privately owned bank in EA and has been operating for over 50 years. CBA was founded in Tanzania and branches were set up in Kenya and Uganda shortly thereafter. The results of the study therefore would apply to the organization under study since it was conducted amongst the CBA staff during the months of July and August 2017.
1.7 Definition of Terms

1.7.1 Financial Deepening
Financial deepening is defined as the increased provision of financial services with a wider choice of services geared for all levels of individuals in a society, and it includes the unbanked and underbanked in a society (Shaw, 1973). It includes the development of financial markets, increasing the number of financial institutions and increasing the diversity in financial instruments (Han & Melecky, 2013).

1.7.2 Financial Literacy
Financial literacy is the ability to understand how money works in the world: how someone manages to earn or make it, how that person manages it, how he/she invests it (turn it into more) and how that person donates it to help others (Levine, 2015).

1.7.3 Network Access
Network access is defined as the physical presence by formal financial institutions and proximity or availability of financial services by customers that meets their financial and household needs (Krishnamurthy & Caballero, 2011).

1.8 Chapter Summary
In this chapter, the study has focused on the background of the research question, the purpose of the study, the questions that guided the research paper. This study may be of importance to different stakeholders as it has been highlighted in this chapter. In chapter two, the literature review shows how different factors affect commercial banks in Kenya while offering financial deepening. The research methodology has been discussed in chapter three. Results and findings have been presented in chapter four, and the study discussions, conclusions, and recommendations have been presented in chapter five.
CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

This study sought to determine strategies influencing financial deepening in financial institutions with a key focus on CBA Limited. This section offers a detailed review of the literature as guided by the study objectives that sought to: examine the influence levels of financial literacy on financial deepening at CBA Limited, to determine the influence levels of network access on financial deepening at CBA Limited, and to examine the influence levels of technology on financial deepening at CBA Limited.

2.2 Financial Literacy and Financial Deepening

The concept of financial literacy is usually defined at convenience by stakeholders, but its broad contours remain same, that is the ability to take informed decisions, make choices leading to empowerment (Shawn, Sampson & Zia, 2009). Financial literacy is the process by which financial consumers/ investors improve their understanding of financial products, concepts and risks, and through information, instruction and/or objective advice, develop the skills and confidence to become more aware of financial risks and opportunities, to make informed choices, to know where to go for help, and to take other effective actions to improve their financial well-being (Gnan, Silgoner & Weber, 2007).

There are good intentions and genuine concerns about vast groups of population still unaware of institutional banking concepts and the know-how to make informed decisions (Shawn, Sampson & Zia, 2009). This makes them vulnerable to exclusion from mainstream socio-economic framework. Financial literacy is an engine that aids the achievement of comprehensive financial deepening and hence financial freedom (Bruhn et al., 2013). Access to financial services, allows the poor to save money outside the house safely, prevents concentration of economic power with a few individuals, and helps in mitigating the risks that the poor face as a result of economic shocks (Bruhn & Love, 2014). Hence, providing access to financial services is increasingly becoming an area of concern for the policymakers for the obvious reason that it has far reaching economic and social implications (Shawn, Sampson & Zia, 2009; Bruhn et al., 2013).
Low levels of financial literacy among the population have serious implications for commercial banks (Hannig, 2014). Gnan et al. (2007) cite that the interest of a commercial bank in promoting financial literacy stems from the fact that it can enhance the effectiveness of monetary policy and because it promotes acceptance for their actions by encouraging: improved reception of monetary policy objectives, better understanding of monetary policy strategy, and greater understanding of the banks’ decisions for achieving their objectives. Thus, financial literacy is crucial for understanding the function of commercial banks and, therefore, a vehicle for improving financial deepening (Hannig, 2014; Gnan et al., 2007).

2.2.1 Consumer Protection Focus

The lack of basic knowledge about financial instruments and their risk-return framework is one common instance of financial illiteracy that is widely observed. Retail investors are greedy to get higher return at very short time and most of them do not calculate the associated risk of financial product (Drexler, Fischer & Schoar, 2011). Thus, appreciation of various aspects of financial literacy and how it impacts consumers’ lives holds the key to prudent financial planning and welfare maximisation, both at the individual level and for the society as a whole (Hannig, 2013).

Financial deepening and consumer protection focuses on financial literacy which is necessary for ensuring financial stability (Hannig, 2014). Financial literacy has significant relevance for financial deepening and consumer protection. Without financial literacy, commercial banks cannot expect to make major headway in either financial deepening or consumer protection (Hannig, 2013).

Financial literacy involves imparting knowledge about the risk and return of financial products to the users and providers of these products. It is this knowledge that helps in containing risks and maintaining stability in the financial system (Anurag, Farhad & Arun, 2010). Consumer protection and financial literacy are interrelated (Roa, 2013). Financial literacy is an essential pre-requisite for ensuring consumer protection. Financial education greatly helps the consumers to find suitable information from available wide information and helpful to narrow this information divide (Anurag, Farhad & Arun, 2010).
2.2.2 Financial Deepening Features

There are two essential element of financial deepening, one of access and the other of awareness. The acceptance of these two elements varies country to country. For developed countries with widespread financial infrastructure, the access to financial products/services is not a matter of concern (Roa, 2013). It is more of a financial literacy issue in that market players/consumers are required to be educated about the features of the available financial products/services, including their risks and returns (Shawn, Sampson & Zia, 2009).

The current content of financial literacy programs has mostly stemmed from the lessons learnt from the recent financial crisis (Bruhn et al., 2013), particularly due to the fact that consumers’ lack of knowledge about new and complex financial products and services partly contributed to the instability and collapse of the financial systems (Bruhn & Love, 2014). Commercial banks should make it clear the importance of financial literacy within the context of an increasingly uncertain and complex economic environment (Roa, 2013). Faced with this outlook, central banks are responsible for the stability of the financial system.

2.2.3 Financial Literacy Content

2.2.3.1 Transaction of Money

This area includes the awareness of the different forms and purposes of money and handling simple monetary transactions such as everyday payments, spending, and value for money, bank cards, cheques, bank accounts and currencies (Anurag, Farhad & Arun, 2010). Content can cover: awareness regarding different forms and purposes of money; recognition of bank notes and coins, understand the amount money is used to exchange goods and services (Gnan, Silgoner & Weber, 2007); identify different ways to pay for items, in person or via the Internet; recognise that there are various ways of receiving money from other people and transferring money between people or organisations (Roa, 2013); understand that money can be borrowed or lent, and the reasons for paying or receiving interest; use of cash, cards and other payment methods to purchase items; use of ATM machines to withdraw cash or to get an account balance; and checking transactions listed on a bank statement and note any irregularities (Drexler, Fischer & Schoar, 2011).
2.2.3.2 Risk and Return Analysis

Risk and return is a key area of financial literacy, incorporating the ability to identify ways of managing, balancing and covering risks and an understanding of the potential for financial gains or losses across a range of financial contexts (Bruhn et al., 2013). There are two types of risk of particular importance in this domain. The first relates to financial losses that an individual cannot bear, such as those caused by catastrophic or repeated costs. The second is the risk inherent in financial products, such as credit agreements with variable interest rates, or investment products (Shawn, Sampson & Zia, 2009).

Content under risk and return analysis include: following area come under it: recognition of certain financial products (including insurance) and processes (such as saving) used to manage and offset various risks (depending on different needs and circumstances) (Anurag, Farhad & Arun, 2010); applying knowledge of the ways to manage risk including the benefits of diversification and the dangers of default on payment of bills and credit agreements to decisions about limiting the risk to personal capital, various types of investment and savings vehicles, including formal financial, products and insurance products, where relevant (Hannig, 2013); and various forms of credit, including informal and formal credit, unsecured and secured, rotating and fixed term, and those with fixed or variable interest rates (Roa, 2013).

More content could include: knowing about and managing risks and rewards associated with life events, the economy and other external factors, such as the potential impact of theft or loss of personal items, job loss, birth or adoption of a child, deteriorating health; and fluctuations in interest rates and exchange rates; and other market changes (Bruhn & Love, 2014). It could also involve knowing about the risks and rewards associated with substitutes for financial products; in particular such as saving in cash, or buying property, livestock or gold; and borrowing from informal lenders (Hannig, 2014).

2.2.3.3 Financial Landscape

This content area covers knowing the rights and responsibilities of consumers in the financial marketplace and within the general financial environment, and the main implications of financial contracts (Zhan & Sherraden, 2011). Information resources and legal regulation are also topics relevant to this content area. In its broadest sense, financial landscape also incorporates an understanding of the consequences of changes in
economic conditions and public policies, such as changes in interest rates, inflation, and taxation or welfare benefits (Bruhn et al., 2013).

Tasks associated with this content area include knowledge of rights and responsibilities, and ability to apply it: understand that buyers and sellers have rights, such as being able to apply for redress (Zhan & Sherraden, 2011); understand that buyers and sellers have responsibilities; consumers/investors giving accurate information when applying for financial products (Drexler, Fischer & Schoar, 2011); providers disclosing all material facts; consumers/investors being aware of the implications of one of the parties not doing so; and recognise the importance of the legal documentation provided when purchasing financial products or services and the importance of understanding the content (Zhan & Sherraden, 2011).

Knowledge and understanding of the financial environment, including: identifying which providers are trustworthy, and which products and services are protected through regulation or consumer protection laws (Gnan, Silgoner & Weber, 2007); identifying whom to ask for advice when choosing financial products, and where to go for help in relation to financial matters; and awareness of financial crimes such as identity theft and scams, and knowledge of how to take appropriate precautions (Zhan & Sherraden, 2011).

Finally, content can also include knowledge and understanding of the impact of financial decisions including on others: understand that individuals have choices in spending and saving and each action can have consequences for the individual and for society (Bruhn & Love, 2014); and recognise how personal financial habits, actions and decisions impact at individual, community, national and international level (Zhan & Sherraden, 2011).

2.3 Network Access and Financial Deepening

Initiatives within financial deepening have remain focused on the consumers’ side of financial deepening, proposing alternatives to underpin households and the unbanked capacity to access financial services, via measures such as financial literacy, or consumer protection laws (Demirguc-Kund et al., 2015). In contrast to this angle, policy proposals aimed at facilitating the expansion of bank branches networks have remained absent in most commercial banks (World Bank, 2014). Individual initiatives by some commercial banks show, however, that these policies - including the support of correspondent
banking, the proportionality of banking regulation and the harmonization of banking products - can effectively encourage banks to attract and accept new depositors, with positive spill overs on financial resilience (BIS, 2015).

Supporting the rural extension of banking services can lead to a reallocation of savings from physical to financial assets. At least three channels linking this reallocation with financial resilience have been stressed (Hawkins, 2011). First, more deposits can help to smooth consumption over the cycle, offsetting the lack of credit supply when financial shocks strike. Second, a larger deposit base can increase the effectiveness of monetary policy by widening the share of the economy subjected to changes in interest rates. Third, deposits provide a liquidity buffer against shocks both at the regional and country level (World Bank, 2014; Hawkins, 2011).

Regulatory burdens and the lack of infrastructure have prevented a more forceful expansion of banking services. Banks’ incentives to expand their activities also crucially depend on market conditions - such as financial literacy, and digital infrastructure - that due to their public good nature remain often undersupplied (World Bank, 2014). In this context, there is scope for the combination of policies tackling different dimensions of financial deepening in order to support the banks’ financial resilience agenda (Demirgüç-Kunt et al., 2015).

Several arguments support the inclusion of the aforementioned objectives in commercial banks’ financial deepening. First, the still large share of the world population that is excluded from the financial system suggests that a non-served demand for deposit services exist (Popov & Udell, 2012). This is of foremost importance for emerging countries in which on average only half of the adult population reports holding a bank account (Demirgüç-Kunt et al., 2015). Second, the empirical evidence suggests that the proximity of bank branches networks is a key driver of financial deepening (Brown, Guin & Kirschenmann, 2016). This means that physical banking infrastructure is important to attract new customers, even considering the expansion of financial digitalization. Third, banks might be reluctant to invest in issues like financial literacy or digital infrastructure, limiting the benefits of a regional expansion. Governments can therefore intervene to provide better conditions that encourage banks to reach new customers (Popov & Udell, 2012).
Finally, regional bank branches are likely to suffer for problems of market incompleteness in their funding structure because of their direct dependence on intra-group liquidity. This restricts their ability to raise new funds when financial shocks occur. By incorporating new depositors, these branches might improve their financial resilience by creating more robust liquidity buffers (Demirgüç-Kunt et al., 2015).

### 2.3.1 Harmonizing Deposit and Payment Services for Low-Income Customers

The empirical literature suggests that accessing saving and payment services is often a more urgent need for low-income customers than credit itself (Hawkins, 2011). In line with this, several countries have introduced the so called “basic accounts” to reduce information asymmetries and facilitate a simple access to deposit and payment services (Ongena, Peydro & Horen, 2015). Basic accounts typically set a maximum balance limit so that they represent a low risk for financial institutions. Opening basic accounts is further facilitated by requiring only simple identification documents and by charging no service fees (Hawkins, 2011). Although being a market-led initiative, basic accounts have been usually enforced by regulatory requirements that define their features. This further improves customers’ capacity to compare between banks, fostering competition (Ongena, Peydro & Horen, 2015; Hawkins, 2011).

Some commercial banks have reported success in setting up basic accounts. Despite of its advantages, large regulatory burdens, thin profits obtained by banks and the difficulties of cross-linking these services with other banking products have discouraged the use of basic accounts (World Bank, 2014). To overcome these difficulties banks might impose minimum and maximum volumes to be held in these basic accounts, adapting the regulation and facilitating the access to other banking products (for example, credit cards, electronic payment devices) linked to the basic accounts (BIS, 2015). Moreover, the use of basic accounts could be in encouraged by using these accounts to transfer social program payments and government salaries, setting a benchmark for similar uses by the private sector (World Bank, 2014).

### 2.3.2 Correspondent Banking and Regional Bank Branching

Commercial banks have promoted financial digitalization in order to facilitate customers’ access to banking. Despite of its clear benefits, this agenda is crucially limited by peoples’ access to digital infrastructure, especially in rural areas (Noth & Busch, 2017).
Therefore these efforts should be complemented with policies aimed at widening the physical access to banking services in regions where banks and other financial companies have been absent (Ongena, Peydro & Horen, 2015).

Bank correspondents have been defined as service points that offer a limit set of financial services acting as representatives of financial institutions. By adapting their financial regulation, countries have allowed for the extension of banking services via these non-conventional networks (Noth & Busch, 2017). Popov and Udell (2012) state that, an important advantage of bank correspondents is that they can exploit the benefits of digitalization without necessary requiring high levels of digital literacy in the population. Moreover, expanding the banking network in this unconventional way entails low marginal costs and is institutionally simple to implement. CBK could support banks by defining guidelines to adapt regulation for non-conventional banking networks and by providing a harmonized evaluation framework to monitor the developments in correspondent banking (World Bank, 2014).

2.3.3 Proportionality of Financial Regulation

CBK should mandate the commercial banks to include a systematic monitoring of the proportionality of regulation across member banks. The proportionality of regulation has become an important supervisory criteria in the international debate (BIS, 2015). This idea refers to the fact that regulation should be calibrated to approach different financial services differently, depending on the risk they represent for the financial system as a whole (World Bank, 2014).

The efforts to implement non-branching banking via correspondents or to harmonize the offer of deposit accounts are only possible if governments support these policies with a flexible regulatory environment. In particular, new products and financial infrastructures should not face the pressure of a high regulatory burden during their implementation phase (Hawkins, 2011). The final objective should be to balance the benefits and potential risks of policies fostering financial deepening. In line with proposals by the BIS (2015) and the World Bank (2014), CBK should mandate commercial banks to provide guidelines for a risk-based, instrument-neutral and forward-looking regulatory environment that promotes innovation by also containing the risks involved in testing new financial services and infrastructures.
Considering the discussion above, three important aspects should be taken into account to ensure proportionality in financial regulation to foster financial deepening. First, authorities should be provided with the technical capacity to evaluate and assess the risk of new financial services and networks (Noth & Busch, 2017). Second, the regulation of digital finance, non-branching banking and basic deposit accounts should consider regional diversity. While policies in this area can be easily implemented in urban regions by making use of the existent infrastructure, challenges are likely to be larger in rural sectors (Brown, Guin & Kirschenmann, 2016; Hawkins, 2011). Third, commercial banks should pull together information on banks’ experiences in setting-up consumer protection schemes regarding new financial services (Popov & Udell, 2012).

This section offers three suggestions: first, customers’ access to deposit accounts should be stimulated by harmonizing deposit and payment services for low-income customers (Hawkins, 2011; Ongena, Peydro & Horen, 2015). Second, correspondent and branch banking should be encouraged as a mechanism to improve customers’ proximity to banking services (Noth & Busch, 2017; Ongena, Peydro & Horen, 2015). Third, CBK should provide commercial banks with guidelines to introduce proportionality criteria in banking regulation so as to facilitate banks’ regional expansion (BIS, 2015; World Bank, 2014). Ultimately, these policy agendas should aim at widening banks’ deposit base. The policy agenda suggested here could be implemented at a relatively low cost and without inducing further distortions in the banking sector, as it would be the case with regulatory requirements on deposits’ interest rates or quotas on specific funding sources (Hawkins, 2011). Facilitating customers’ access to deposit services would also avoid the risk of affecting the risk of banks’ credit portfolio, as it is the case with policies directly promoting credit supply to increase financial deepening (Demirguc-Kund et al., 2015).

### 2.4 Technology and Financial Deepening

Developments in the field of Information Technology (IT) strongly support the growth and inclusiveness of the banking sector, thereby facilitating inclusive economic growth (Garbade & Silber, 2014). IT not only enhances the competitive efficiency of the banking sector by strengthening back-end administrative processes, it also improves the front-end operations and helps in bringing down the transaction costs for the customers (Martinez-Jerez, Tufano & Campbell, 2012). It has the potential of furthering financial inclusion by making small ticket retail transactions cheaper, easier and faster for the banking sector as
well as for the small customers (Garbade & Silber, 2014). Commercial banks have been actively involved in harnessing technology for the development of the banking sector (de Souza, 2010).

Banking technology is the collection of information technology components (hardware, software, standards and telecommunications) that help financial institutions to conduct the business of banking efficiently (Martínez-Jerez, Tufano & Campbell, 2012). Payments technology is a subset of banking technology that is used for the transmission of payment messages, payment clearing and payment settlement. Banking and payments technologies complement each other in ensuring that customers are able to conduct their financial transactions with low-cost, quickly and with high security (Garbade & Silber, 2014).

2.4.1 Core Banking Solutions (CBS)
A major technological development in banking sector is the adoption of the Core Banking Solutions (CBS). CBS is networking of branches, which enables customers to operate their accounts and avail of banking services from any branch of the Bank on CBS network, regardless of where the customer maintains his/her account (Levine & King, 2013).

The customer is no more the customer of a branch as he becomes the Bank’s customer. CBS is a step towards enhancing, customer convenience at any time (de Souza, 2010). It is important to leverage on to this technological advancement to look at areas beyond CBS that can help in not just delivering quality and efficient services to customers but also generating and managing information effectively (Levine & King, 2013).

2.4.2 Automated Teller Machines
Another major technological development, which has revolutionized the delivery channel in the banking sector, has been the growth of ATMs. The value of a bank’s ATM network is directly proportional to its size - another example of network effect (Hasan, Schmiedel & Song, 2012). While depositors prefer access to larger and thus more convenient ATM networks, banks on the same network face the risk of being substituted for each other by their consumers (Thorsten, Asli & Honohan, 2009). Group members of an existing network may place entry conditions or restrictions to raise the bar for banks wanting to
join their network, which they feel might be a threat to their own business (Hasan, Schmiedel & Song, 2012). The banking space has seen considerable growth through ATMs like: Micro ATMs, Biometric ATMs, and Mobile ATMs (Kendall, Mylenko & Ponce, 2010).

2.4.2.1 Micro ATMs
The presence of ATMs mostly found in Metro/Urban centres and banks are not keen to install ATMs at Rural/ Semi Urban centres on account of high investment and low transaction volume (Hasan, Schmiedel & Song, 2012). In order to make the ATMs viable at these centres, there is a need to deploy low cost ATMs with basic features such as cash withdrawal and balance enquiry and should be located at places where rural folk pays frequent visits such as petrol pumps, and community towns, and it is convenient and cost effective compared to paying visit to the bank branch located at nearby centre (Thorsten, Asli & Honohan, 2009).

2.4.2.2 Biometric ATMs
The penetration of ATMs into Rural / Semi-urban areas may not serve the envisaged purpose unless it is put to use by illiterates/semi-literates whose presence is predominant in rural areas. The existing ATMs are not being used optimally by rural folk on account of Personal Identification Number (PIN) and Password related issues (Kendall, Mylenko & Ponce, 2010). Introduction of Biometric ATMs may enable the illiterate and semi-literate customers to avail ATM facilities on par with literate customers. Under this, Thumb impression of the cardholder will be scanned and transfer the same to central server as one time measure. ATM dispenses cash and other services only after verifying the thumb impression of the cardholder with that of finger print available with the bank’s server (Mas, 2009).

2.4.2.3 Mobile ATMs
Mobile ATMs are designed for providing ATM facility to the rural folk as well as other customers. The Van would move to the pre-determined places and also accessible to Biometric card holders. Opening of accounts also can be undertaken during the visits to the rural areas (Kendall, Mylenko & Ponce, 2010; Mas, 2009).
All these above initiatives warrant the banks to invest substantial amount on infrastructure besides recurring expenditure. The distribution of financial products and services at the lowest rung of the pyramid requires a low-cost model that allows accepting and making of a large number of micro payments to and from the poor (Libby, 2009). The high intermediary cost of the banks is a stumbling block to reach the poor, which need to be addressed. Hence, it is warranted the banks to search for the following alternate models to extend Branchless Banking across rural areas. High Operating Costs and Low Business Volume are the major constraints of the banks in extending banking services especially in remote rural and inaccessible areas through Branch Banking Model (Garbade & Silber, 2014). To address this issue, financial regulators have permitted the banks to make use of the services of Business Facilitators and Business Correspondents to take banking to unbanked areas in a most cost effective manner (Libby, 2009).

2.4.3 Branchless Banking
The traditional location for banking is at a bank branch. While ATMs and POS offer certain account-based transactional facilities outside of a bank branch, branchless banking goes further, including non-bank retail outlets for banking activities and the use of technology such as mobile phones or cards for the identification of customers or as a store of value (Mas & Ng’weno, 2011). The back-end accounting function of a branchless bank is performed by an institution that is regulated by a bank regulator or central bank. The use of non-bank retail outlets provides a cost effective method of reaching customers on a broad scale without incurring any new fixed or establishment cost (Mas, 2009).

In recent years, there has been growing publicity about agent-based branchless banking, and the media reports success stories from many developing countries. A number of countries and international institutions have taken initiatives to support this new channel of delivery of financial services in order to improve financial inclusion (Kendall, Mylenko & Ponce, 2010). Despite these reports, it is still difficult to ascertain the level of success that branchless banking has had in improving financial inclusion. However, all future projections points to the optimistic possibility that branchless banking will improve the number of financially deepened, if adequate government and institutional support is available (Garbade & Silber, 2014).
2.4.4 Business Correspondent

Business Correspondent (BC) model envisages the use of identified institutional agents, organizations and other entities for supporting the Bank in extending Financial Services, operating from different locations away from the Bank branches. The scope of activities to be undertaken by the BCs include collection of small value deposits. Collection of interest Sale of micro insurance and mutual fund products or pension products and other third party products and receipt and delivery of small value remittances (Popov & Udell, 2012).

Under this model, the user is required to open account with a Bank and franchised to BC for the purpose of extending approved services. Technology plays an important role to establish link between the User, BC and Bank for seamless operations duly protecting the interest of all the concerned (Hawkins, 2011). Many organized players are entering in to this area and showing keen interest to make the model success by providing the desired services to the Users in a most cost effective and convenient manner using innovative technology applications (Popov & Udell, 2012).

2.4.5 Mobile Banking Model

The mobile-phone revolution that is transforming the world could also turn into a banking revolution. Today, the reach of mobile to the remote village and its usage by the common man has become order of the day and it is estimated that around 1/4th of mobile users are residing in villages/small towns. The coverage of mobile phones and the use of such instruments by all section of the population can be exploited for extending financial services to the excluded populations. It enables the subscribers to manage their financial transactions (funds transfer) independent of place and time (World Bank, 2016). The subscriber can approach to a retailer of mobile network for withdrawal/deposit of money and the transaction takes place using Short Message Service (SMS) messages.

More than the technology, it is the regulatory environment that may prove to be a challenge as there are multiple players in the mobile banking value chain. The mobile banking payment stream includes banks, Mobile Network Operators (MNOs) and agents, who are regulated by different regulators with different objectives (Merritt, 2011). Some countries opt for a bank-led model in which banks plays a dominant role, while others
will follow the telco-led (also called MNO-led) model in which financial institutions play a lesser role (Merritt, 2011).

An interesting case for mobile payments is Kenya’s M-pesa, which is widely used in the country. The use of M-pesa is estimated to have a financial deepening of around 75% of its adult population, with over 40% having an account at a formal financial institution (World Bank, 2016). Some 66% of M-pesa users employ a mobile phone to receive money, and 60% to send it. Mobile banking is offered by Safaricom, an MNO with a cellular market share of over 80%. Safaricom was able to leverage an existing network of airtime resellers to build a strong and reliable store network, and to offer flexible prices to different customer segments (Mas & Ng’weno, 2011).

Countries like Senegal, who tried to replicate the same scheme, failed to achieve the expected levels of success. This shows that Kenya may have had some specific local environmental factors that enabled Safaricom to succeed with M-pesa (BIS, 2015). Hence, we can conclude that successful mobile payment models may need an in-depth understanding of the local markets, local technology, and localization of the products being offered in order to succeed (Mas & Ng’weno, 2011).

2.5 Chapter Summary
This section offers a detailed review of the literature as guided by the study objectives that sought to: examine the influence of financial literacy on financial deepening, to determine the influence of network access on financial deepening, and to examine the influence of technology on financial deepening. The study has used journals and books to create the literature that guided that study. The next chapter discusses the methodology that was used.
CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction
This chapter describes the research design, the population, the sampling design, data collection method, the research procedure, and data analysis method that were adopted for purposes of this study.

3.2 Research Design
Bienstock (2012) defines research design as simply as the plan outlining how data is to be gathered for an assessment or evaluation for purposes of a research study. Allyn and Bacon (2014) define research design as the general approach that a researcher uses to incorporate the different and various study components in a rational and comprehensible manner, thus, guaranteeing that the research problem is effectively and efficiently addressed; it establishes the blueprint that guides the collection of data, the measurement, and the analysis of the collected data. Bienstock (2012) states that, research design is used because it attempts to identify and explain variables in order to paint a picture of a particular phenomenon.

In this study, a descriptive research design was used. According to Hair et al. (2007) descriptive research is focused on obtaining data that determines the geographies of the research topic. Descriptive studies are usually the best methods for collecting information that demonstrate relationships and describe the world as it exists. Allyn and Bacon (2014) suggests that descriptive studies can answer questions such as “what is” or “what was.” In this study, descriptive design was used to identify the relationship between strategies (independent variable) influencing financial deepening (dependent variable) in CBA.

3.3 Population and Sampling Design
3.3.1 Population
Cooper and Schindler (2013) define a population as the total collection of elements about which one wishes to make inferences. Population can also be defined as the entire aggregation of items, elements, entities or sets of units from which samples can be drawn and from which the results of a survey apply (Bienstock, 2012). The target population of
the study was the managers and employees of CBA whose total was 136 in total and were distributed as shown on Table 3.1.

Table 3.1 Population Distribution

<table>
<thead>
<tr>
<th>Employee Position/ Level</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior Managers</td>
<td>7</td>
<td>5.2</td>
</tr>
<tr>
<td>Operational Managers</td>
<td>26</td>
<td>19.1</td>
</tr>
<tr>
<td>Line Managers/ Supervisors</td>
<td>38</td>
<td>27.9</td>
</tr>
<tr>
<td>Regular Staff</td>
<td>65</td>
<td>47.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>136</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: CBA (2017)

3.3.2 Sampling Design

3.3.2.1 Sample Frame

A sample frame is a comprehensive list of the population that a sample for a research study is drawn (Hair *et al*., 2007). Allyn and Bacon (2014) define a sample frame as the set of requirements on a list that is utilized by a researcher to categorize a sample from the population for statistical inferences. Cooper and Schindler (2013) note that, a sampling frame contains a geometric identifier for particular individuals within a population, in addition to other classifying information about the population characteristics that facilitate analysis by allowing for the division of the population into further frames for an in-depth analysis. The sampling frame for this study was the official list of all employees working at CBA in 2017 and was acquired from the organization’s Human Resource Department.

3.3.2.2 Sampling Techniques

Bienstock (2012) defines sampling techniques as strategies used by researchers to pick a sample that is a representative of the population of the study. Hair *et al*. (2007) state that sampling involves the process of selecting a sub-section of a population that represents the entire population in order to obtain information regarding the phenomenon of interest, making a sample is a sub-section of the population, which is selected to participate in a study. This study employed a census study because of the population size.
Saunders (2012) defines a census as a procedure of systematically acquiring and recording information about the members of a given population, it is defined as the collection of data from a whole population rather than just a sample. Saunders, Lewis and Thornhill (2012) further states that, a census is often construed as the opposite of a sample as its intent is to count everyone in a population rather than a fraction. The study used a census since it was the only sampling procedure that ensured that everyone (all elements of the population) were considered and included in the study. A census study was selected because it ensured that the results could be applied to the entire organization. The process also minimized sampling errors since everyone was included in the study.

3.3.2 Sample Size
A sample size is a small portion of a group, intended to demonstrate the demographics of - quality, style, or nature - of the whole/ entire population (Saunders, 2012). Cooper and Schindler (2013) state that, a sample must be cautiously nominated to ensure that the selection is the true representative of the entire population. Bienstock (2012) argues that a sample must be carefully selected to be a representative of the population and the need for the researcher to ensure that the subdivisions entailed in the analysis are accurately catered for. Since the sampling technique selected was a census, the researcher had ensured that all sub-divisions entailed in the population were accurately catered for, and the sample size for the study were all the employees of CBA whose total was 136.

3.4 Data Collection Method
The study made use of primary data that was obtained through the administration of questionnaires that were designed according to the specific objectives of the research. The researcher used questionnaires because Allyn and Bacon (2014) state that questionnaires are the best tools for quantitative research since they are easy to administer and they are fairly low-priced. Hair et al. (2007) note that, questionnaires can be used to cover the population effectively and can also be administered with the slightest of training, and they are easy to analyse once completed. The questionnaires included closed ended questions.

The questionnaire was divided into four sections as follows: Section A focused on the general information of the population, Section B focused on influence of financial literacy on financial deepening, Section C focused on influence of network access and
communication access on financial deepening, and Section D focused on influence of technology on financial deepening in CBA.

3.5 Research Procedure
The questionnaire was pre-tested to gauge its appropriateness in answering the research question before it was administered to the targeted population using a pilot test. Saunders (2012) defines pilot testing as a method of determining the reliability and validity of a research/survey instrument on a small scale before the actual administration. In other words, pilot testing is a means finding out if a survey tool (questionnaire, key informants, interview guide, or observation form) will work in the “real world” by trying it out first on a few people (Hair et al. 2007). Allyn and Bacon (2014) state that, pre-testing of research tools improves the reliability of the collected research data. The pilot study was conducted by randomly administering questionnaires to 10 employees who were excluded from the final population sample. The questionnaire was coded and the results of the pilot test were analysed using the Cronbach Alpha. Reliability and validity of the questionnaire was confirmed when the questionnaire variables (items) had an Alpha coefficient of >0.7.

Once reliability and validity were confirmed, the questionnaires were administered to the target population. Attached to the questionnaire was an introductory letter indicating the purpose of the study and stating clearly on the confidentiality of the information that would be provided by the respondents for this research. The respondents were given 4 days to fill the questionnaires. To improve the response rate, the researcher used constant reminders that included SMSs, and phone calls.

3.6 Data Analysis
Saunders, Lewis and Thornhill (2012) state that data analysis is a body of methods and approaches that are used to describe facts for developing explanations in a given representation of a population. Saunders (2012) notes that data analysis guides hypotheses testing and different pattern of events. Once data entry was complete, the data was analysed using a software for quantitative data analysis known as Statistical Package for Social Sciences (SPSS).
Bienstock (2012) states that, quantitative analysis includes the process of managing and translating data into meaningful expressions like figures and frequency tables, and this is important since it enables researchers to make sense of the collected data. Descriptive statistics which included frequencies and percentages that were calculated for easier interpretation of the results. Means and standard deviations were used for the likert questions. Inferential analysis of correlations and regression analysis were used to examine the existing relationship between the study variables. The study results and findings were presented in the form of figures and tables.

3.7 Chapter Summary
This chapter details the type of research design that was used in the study. It goes further and detailed the study population, the research sample size, sampling design technique, data collection method as well as analysis. It also, described how the questionnaire for the data collection were pre-tested to ascertain relevance as far as data collection method was concerned. The next chapter presents the results and findings of the study.
CHAPTER FOUR

4.0 RESULTS AND FINDINGS

4.1 Introduction
This study examined the challenges faced by commercial banks that were associated with financial deepening. This chapter provides the results of the analysed results for the influence of financial literacy on financial deepening, the influence of network access on financial deepening, and the influence of technology on financial deepening at CBA Limited.

4.2 Response Rate and Reliability Results

4.2.1 Response Rate
Table 4.1 shows out of 136 questionnaires circulated, 99 were valid for analysis, and 37 were void. These results revealed that the study had a response rate of 72.8%. These percentage was above the required threshold, and thus validated the study results.

<table>
<thead>
<tr>
<th>Scale</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distributed Questionnaires</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Valid Questionnaires</td>
<td>99</td>
<td>72.8</td>
</tr>
<tr>
<td>Void Questionnaires</td>
<td>37</td>
<td>27.2</td>
</tr>
<tr>
<td>Total</td>
<td>136</td>
<td>100.0</td>
</tr>
</tbody>
</table>

4.2.2 Reliability Results
Table 4.2 shows that the questionnaire variables were above the required threshold of >0.7. The coefficient for financial literacy factors was 0.876, the coefficient for network access factors was 0.714, and coefficient for technology factors was 0.741. These results indicate that the questionnaire variables were valid for the study increasing the study’s validity.
Table 4.2 Reliability Results

<table>
<thead>
<tr>
<th>Questionnaire Variable Items</th>
<th>No. of Items</th>
<th>Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Literacy Factors</td>
<td>10</td>
<td>.876</td>
</tr>
<tr>
<td>Network Access Factors</td>
<td>10</td>
<td>.714</td>
</tr>
<tr>
<td>Technology Factors</td>
<td>10</td>
<td>.741</td>
</tr>
</tbody>
</table>

4.3 General Information

4.3.1 Gender

Figure 4.1 shows that 53.5% of the respondents were male and 46.5% were female. These results show that majority of the population at CBA were male and this could be explained by the nature of work.

![Figure 4.1 Gender](image)

4.3.2 Education

Figure 4.2 shows that 73.7% of the respondents had undergraduate degrees, 26.3% had Master’s degrees, and none had college or secondary certificates. These results show that majority of the respondents were well educated and could easily comprehend the study questions.
4.3.3 Years Working with Organization

Figure 4.3 shows that 75.8% of the respondents had worked for the organization for 1-5 years, 16.2% for 6-10 years, 8.1% for 11-15 years, and none for 16 years and above. These results show that majority of the respondents had been with the organization for 1-10 years which made them appropriate for the study.
4.3.4 Position in Organization
Figure 4.4 shows that 49.5% of the respondents were regular staff, 29.3% were line managers/supervisors, 12.1% were operational managers, and 9.1% were senior managers. These results show that all levels of employees were considered which shows that the results could be applied to the organization.

Figure 4.4 Position in Organization

4.3.5 Financial Deepening Strategy Awareness
Figure 4.5 shows that 79.8% of the respondents stated yes, 15.2% stated no, and 5.1% stated no idea. These results show that majority of the respondents were aware of the financial deepening strategies in the organization, making them valid respondents.

Figure 4.5 Financial Deepening Strategy Awareness
4.4 Financial Literacy and Financial Deepening

4.4.1 Focus on Consumer Literacy
Table 4.3 indicates that 44.4% of the respondents agreed, 27.3% strongly agreed, 13.1% were neutral, 10.1% disagreed, and 5.1% strongly disagreed. The results show that financial deepening strategies focused on consumer financial literacy so as to ensure financial stability.

Table 4.3 Focus on Consumer Literacy

<table>
<thead>
<tr>
<th>Scale</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus on Consumer Literacy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>5</td>
<td>5.1</td>
</tr>
<tr>
<td>Disagree</td>
<td>10</td>
<td>10.1</td>
</tr>
<tr>
<td>Neutral</td>
<td>13</td>
<td>13.1</td>
</tr>
<tr>
<td>Agree</td>
<td>44</td>
<td>44.4</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>27</td>
<td>27.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>99</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

4.4.2 Financial Education
Table 4.4 indicates that 39.4% of the respondents strongly agreed, 38.4% agreed, 12.1% were neutral, and 5.1% equally disagreed and strongly disagreed. The results show that financial education had greatly helped consumers to find the information that they needed.

Table 4.4 Financial Education

<table>
<thead>
<tr>
<th>Scale</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>5</td>
<td>5.1</td>
</tr>
<tr>
<td>Disagree</td>
<td>5</td>
<td>5.1</td>
</tr>
<tr>
<td>Neutral</td>
<td>12</td>
<td>12.1</td>
</tr>
<tr>
<td>Agree</td>
<td>38</td>
<td>38.4</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>39</td>
<td>39.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>99</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>
4.4.3 Focus on Financial Accessibility
Table 4.5 indicates that 53.5% of the respondents agreed, 25.3% strongly agreed, 11.1% were neutral, and 5.1% equally disagreed and strongly disagreed. The results show that financial deepening strategies focus on ensuring financial accessibility and product/service awareness.

<table>
<thead>
<tr>
<th>Scale</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus on Financial Accessibility</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>5</td>
<td>5.1</td>
</tr>
<tr>
<td>Disagree</td>
<td>5</td>
<td>5.1</td>
</tr>
<tr>
<td>Neutral</td>
<td>11</td>
<td>11.1</td>
</tr>
<tr>
<td>Agree</td>
<td>53</td>
<td>53.5</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>25</td>
<td>25.3</td>
</tr>
<tr>
<td>Total</td>
<td>99</td>
<td>100.0</td>
</tr>
</tbody>
</table>

4.4.4 Past Experience
Table 4.6 indicates that 53.5% of the respondents agreed, 29.3% strongly agreed, 8.1% were neutral, and 9.1% disagreed, and none strongly disagreed. The results show that financial literacy programs stem from lessons learnt from their past experience.

<table>
<thead>
<tr>
<th>Scale</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Past Experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Disagree</td>
<td>9</td>
<td>9.1</td>
</tr>
<tr>
<td>Neutral</td>
<td>8</td>
<td>8.1</td>
</tr>
<tr>
<td>Agree</td>
<td>53</td>
<td>53.5</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>29</td>
<td>29.3</td>
</tr>
<tr>
<td>Total</td>
<td>99</td>
<td>100.0</td>
</tr>
</tbody>
</table>

4.4.5 Awareness of Forms and Purposes of Money
Figure 4.6 indicates that 39.4% of the respondents agreed, 34.3% strongly agreed, 12.1% strongly disagreed, 11.1% disagreed, and 3% were neutral. The results show that financial deepening content concentrated on awareness regarding different forms and purposes of money used by its customers.
4.4.6 Awareness of Using ATMs

Table 4.7 indicates that 30.3% of the respondents disagreed, 26.3% were neutral, 19.2% agreed, 17.2% strongly agreed, and 7.1% strongly disagreed. The results show that financial deepening content did not concentrate on awareness regarding the use of ATM machines for financial purposes, however a significant percentage states it did.

Table 4.7 Awareness of Using ATMs

<table>
<thead>
<tr>
<th>Scale</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Awareness of Using ATMs</td>
<td>Strongly Disagree</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Disagree</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Neutral</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>Agree</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>Strongly Agree</td>
<td>17</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>99</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>
4.4.7 Teaching of Financial Products and Processes
Figure 4.7 indicates that 47.5% of the respondents agreed, 24.2% strongly agreed, 14.1% were neutral, 12.1% disagreed, and none strongly disagreed. The results show that financial deepening content concentrated on teaching its consumers about financial products and processes they could use to manage risks.

Figure 4.7 Teaching of Financial Products and Processes

4.4.8 Financial Product Substitutes
Figure 4.8 indicates that 30.3% of the respondents were neutral, 29.3% agreed, 16.2% equally strongly agreed and disagreed, and 8.1% strongly disagreed. The results show that financial deepening content concentrated on teaching its consumers about substitutes for financial products such as buying property, livestock or saving in banks.

Figure 4.8 Financial Product Substitutes
4.4.9 Economic Condition and Policies Change

Figure 4.9 indicates that 29.3% of the respondents strongly agreed, 26.3% were neutral, 17.2% agreed, 15.2% disagreed, and 12.1% strongly disagreed. The results show that financial deepening strategies incorporated the understanding of the consequences of changes in economic conditions and public policies.

![Figure 4.9 Economic Condition and Policies Change](image)

4.4.10 Information Disclosure

Figure 4.10 indicates that 36.4% of the respondents strongly agreed, 27.3% agreed, 17.2% strongly disagreed, 12.1% disagreed, and 7.1% were neutral. The results show that financial deepening strategies focused on disclosing information to consumers about all material facts so that they were aware of the implications of their choices.

![Figure 4.10 Information Disclosure](image)
4.4.11 Correlations for Financial Literacy and Financial Deepening

Table 4.8 shows that financial literacy was a significant factor to financial deepening since \( r=0.640, \ p<0.01 \). The results have a p value of 0.000 which is less than the required threshold of 0.05, thus indicating that financial literacy is very significant to financial deepening.

Table 4.8 Correlations for Financial Literacy and Financial Deepening

<table>
<thead>
<tr>
<th></th>
<th>Financial Deepening</th>
<th>Financial Literacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Deepening</td>
<td>1</td>
<td>.640**</td>
</tr>
<tr>
<td>Financial Literacy</td>
<td>.640**</td>
<td>.000</td>
</tr>
</tbody>
</table>

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

4.4.12 Regressions for Financial Literacy and Financial Deepening

4.4.12.1 Model Summary for Financial Literacy and Financial Deepening

Table 4.9 presents the regression analysis model summary for financial literacy (the independent variables), and financial deepening (the dependent variable). The adjusted R square value of 0.404 in the model demonstrates that financial literacy accounts for 40.4% of the variance in financial deepening.

Table 4.9 Model Summary for Financial Literacy and Financial Deepening

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.640</td>
<td>.410</td>
<td>.404</td>
<td>.29909</td>
</tr>
</tbody>
</table>

a. Predictors (Constant): Financial Literacy

4.4.12.2 Analysis of Variance for Financial Literacy and Financial Deepening

Table 4.10 analysis of variance (ANOVA) proves that there was a significant relationship between financial literacy and financial deepening. This is because of the large size of the computed F (67.461) indicates that there was a significant difference in the mean distribution of the study variables at a <0.05 level of significance, indicating that the observed differences were thus significant.
Table 4.10 ANOVA for Financial Literacy and Financial Deepening

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>6.035</td>
<td>1</td>
<td>6.035</td>
<td>67.461</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>8.677</td>
<td>97</td>
<td>.089</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>14.712</td>
<td>98</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant): Financial Literacy
b. Dependent Variable: Financial Deepening

4.4.12.3 Regression Coefficients for Financial Literacy and Financial Deepening

Table 4.11 indicates that financial literacy had a positive, and significant influence on financial deepening because its p value was <0.05. The coefficient of 0.296 also indicates that for every increase in financial literacy, one would expect an increase of 29.6% in financial deepening.

Table 4.11 Regression Coefficients for Financial Literacy and Financial Deepening

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>2.662</td>
<td>.135</td>
<td>19.732</td>
<td>.000</td>
</tr>
<tr>
<td>Financial Literacy</td>
<td>.296</td>
<td>.036</td>
<td>.640</td>
<td>8.213</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Financial Deepening

4.5 Network Access and Financial Deepening

4.5.1 Lack of Infrastructure

Figure 4.11 indicates that 32.3% of the respondents agreed, 28.3% strongly disagreed, 19.2% disagreed, 15.2% agreed, and 5.1% were neutral. The results show that regulatory burdens and the lack of infrastructure had and at the same time had not prevented the organization to expand its banking services.
4.5.2 Reluctance in Financial Literacy Investment

Table 4.12 indicates that 38.4% of the respondents disagreed, 31.3% strongly disagreed, 15.2% agreed, 12.1% were neutral, and 3% strongly agreed. The results show that firm was not reluctant in investing in matters of financial literacy and digital infrastructure for regional expansion.

<table>
<thead>
<tr>
<th>Reluctance in Financial Literacy Investment</th>
<th>Scale</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly Disagree</td>
<td>31</td>
<td>31.3</td>
</tr>
<tr>
<td></td>
<td>Disagree</td>
<td>38</td>
<td>38.4</td>
</tr>
<tr>
<td></td>
<td>Neutral</td>
<td>12</td>
<td>12.1</td>
</tr>
<tr>
<td></td>
<td>Agree</td>
<td>15</td>
<td>15.2</td>
</tr>
<tr>
<td></td>
<td>Strongly Agree</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>99</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

4.5.3 Introduction of Basic Accounts

Table 4.13 indicates that 48.5% of the respondents agreed, 22.2% strongly agreed, 18.2% were neutral, 6.1% strongly disagreed, and 5.1% disagreed. The results show that the organization had introduced “basic accounts” to facilitate simple access to deposit and payment services to its customers.
### Table 4.13 Introduction of Basic Accounts

<table>
<thead>
<tr>
<th>Scale</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction of Basic Accounts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>6</td>
<td>6.1</td>
</tr>
<tr>
<td>Disagree</td>
<td>5</td>
<td>5.1</td>
</tr>
<tr>
<td>Neutral</td>
<td>18</td>
<td>18.2</td>
</tr>
<tr>
<td>Agree</td>
<td>48</td>
<td>48.5</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>22</td>
<td>22.2</td>
</tr>
<tr>
<td>Total</td>
<td>99</td>
<td>100.0</td>
</tr>
</tbody>
</table>

#### 4.5.4 Account Balances

Table 4.14 indicates that 27.3% of the respondents strongly disagreed and were neutral respectively, 21.2% strongly agreed, 16.2% disagreed, and 8.1% agreed. The results show that the organization did not impose minimum and maximum volumes to be held in basic accounts to facilitate access to other banking products.

### Table 4.14 Account Balances

<table>
<thead>
<tr>
<th>Scale</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Account Balances</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>27</td>
<td>27.3</td>
</tr>
<tr>
<td>Disagree</td>
<td>16</td>
<td>16.2</td>
</tr>
<tr>
<td>Neutral</td>
<td>27</td>
<td>27.3</td>
</tr>
<tr>
<td>Agree</td>
<td>8</td>
<td>8.1</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>21</td>
<td>21.2</td>
</tr>
<tr>
<td>Total</td>
<td>99</td>
<td>100.0</td>
</tr>
</tbody>
</table>

#### 4.5.5 Financial Digitalization

Figure 4.12 indicates that 63.7% of the respondents strongly agreed, 34.3% agreed, and 2% were neutral. The results show that the organization had promoted financial digitalization in order to facilitate customers’ access to banking.

![Figure 4.12 Financial Digitalization](image-url)
4.5.6 Service Points
Figure 4.13 indicates that 25.3% of the respondents agreed, 23.2% were neutral, 20.2% strongly agreed, 19.2% disagreed, and 12.1% strongly disagreed. The results show that firm had “correspondents” or “service points” that offered a limit set of financial services acting as representatives of the organization.

![Figure 4.13 Service Points](image)

4.5.7 Regulatory Burden
Figure 4.14 shows that 26.3% of the respondents disagreed, 23.2% agreed, 21.2% were neutral, 16.2% strongly disagreed, and 13.1% strongly agreed. The results show that the firm’s new products and financial infrastructures faced the pressure of a high regulatory burden during the implementation phase.

![Figure 4.14 Regulatory Burden](image)
4.5.8 Technical Capacity
Figure 4.15 shows that 46.5% of the respondents agreed, 38.4% strongly agreed, 13.1% were neutral, 2% disagreed, and none strongly disagreed. The results show that the organization had the technical capacity to evaluate and assess the risk of new financial services and networks.

![Figure 4.15 Technical Capacity](image)

4.5.9 Regulation of Digital Finance
Figure 4.16 shows that 42.4% of the respondents strongly agreed, 25.3% agreed, 20.2% were neutral, 12.1% strongly disagreed, and none disagreed. The results show that the firm’s regulation of digital finance, non-branching banking and basic deposit accounts considered regional diversity.

![Figure 4.16 Regulation of Digital Finance](image)
4.5.10 Banks’ Experience Information
Figure 4.17 shows that 36.4% of the respondents agreed, 32.3% strongly agreed, 21.2% were neutral, 10.1% disagreed, and none strongly disagreed. The results show that the organization had pulled together information on banks’ experiences in setting-up consumer protection schemes regarding new financial services.

![Figure 4.17 Banks’ Experience Information](image)

4.5.11 Correlations for Network Access and Financial Deepening
Table 4.15 shows that network access was a significant factor to financial deepening since $(r=0.521, \ p<0.01)$. The results have a p value of 0.000 which is less than the required threshold of 0.05, thus indicating that network access is very significant to financial deepening.

<table>
<thead>
<tr>
<th></th>
<th>Financial Deepening</th>
<th>Network Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Deepening</td>
<td>1</td>
<td>.521**  .000</td>
</tr>
<tr>
<td>Network Access</td>
<td>.521**  .000</td>
<td>1</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed)
4.5.12 Regressions for Network Access and Financial Deepening

4.5.12.1 Model Summary for Network Access and Financial Deepening
Table 4.16 presents the regression analysis model summary for network access (the independent variables), and financial deepening (the dependent variable). The adjusted R square value of 0.264 in the model demonstrates that network access accounts for 26.4% of the variance in financial deepening.

Table 4.16 Model Summary for Network Access and Financial Deepening

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.521</td>
<td>.272</td>
<td>.264</td>
<td>.33233</td>
</tr>
</tbody>
</table>

a. Predictors (Constant): Network Access

4.5.12.2 Analysis of Variance for Network Access and Financial Deepening
Table 4.17 analysis of variance (ANOVA) proves that there was a significant relationship between network access and financial deepening. This is because of the large size of the computed F (36.209) indicates that there was a significant difference in the mean distribution of the study variables at a <0.05 level of significance, indicating that the observed differences were thus significant.

Table 4.17 ANOVA for Network Access and Financial Deepening

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Regression</td>
<td>3.999</td>
<td>1</td>
<td>3.999</td>
<td>36.209</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>10.713</td>
<td>97</td>
<td>.110</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>14.712</td>
<td>98</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant): Network Access
b. Dependent Variable: Financial Deepening

4.5.12.3 Regression Coefficients for Network Access and Financial Deepening
Table 4.18 indicates that network access had a positive, and significant influence on financial deepening because its p value was <0.05. The coefficient of 0.371 also indicates that for every increase in network access, one would expect an increase of 37.1% in financial deepening.
Table 4.18 Regression Coefficients for Network Access and Financial Deepening

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Constant)</td>
<td>2.469</td>
<td>.214</td>
<td>11.528</td>
<td>.000</td>
</tr>
<tr>
<td>Network Access</td>
<td>.371</td>
<td>.062</td>
<td>.521</td>
<td>.000</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Financial Deepening

4.6 Technology and Financial Deepening

4.6.1 Technology and Competitive Efficiency

Table 4.19 indicates that 61.6% of the respondents strongly agreed, 33.3% agreed, 5.1% were neutral, and none disagreed and strongly agreed. The results show that IT had enhanced the competitive efficiency of the bank by strengthening its back-end and front-end administrative processes.

Table 4.19 Technology and Competitive Efficiency

<table>
<thead>
<tr>
<th>Technology and Competitive Efficiency</th>
<th>Scale</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Disagree</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Neutral</td>
<td>5</td>
<td>5.1</td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td>33</td>
<td>33.3</td>
<td></td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>61</td>
<td>61.6</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>99</strong></td>
<td><strong>100.0</strong></td>
<td></td>
</tr>
</tbody>
</table>

4.6.2 Technology Harnessing

Figure 4.18 shows that 55.6% of the respondents strongly agreed, 39.4% agreed, 3% disagreed, 2% were neutral, and none strongly disagreed. The results show that the firm was actively involved in harnessing technology for the development of its banking services.
4.6.3 Technology Component Information

Table 4.20 indicates that 48.5% of the respondents agreed, 31.3% strongly agreed, 20.2% were neutral, and none disagreed and strongly agreed. The results show that the bank collected information technology components to facilitate its ability to conduct its business effectively and efficiently.

<table>
<thead>
<tr>
<th>Scale</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Disagree</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Neutral</td>
<td>20</td>
<td>20.2%</td>
</tr>
<tr>
<td>Agree</td>
<td>48</td>
<td>48.5%</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>31</td>
<td>31.3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>99</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

4.6.4 Payment Technologies

Table 4.21 indicates that 52.5% of the respondents strongly agreed, 36.4% agreed, 9.1% were neutral, 2% disagreed, and none strongly agreed. The results show that the organization used payments technology (transmission of payment messages, payment clearing and payment settlement) to ensure its customers were able to conduct their financial transactions at low-costs.
<table>
<thead>
<tr>
<th>Scale</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payment Technologies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Disagree</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Neutral</td>
<td>9</td>
<td>9.1</td>
</tr>
<tr>
<td>Agree</td>
<td>36</td>
<td>36.4</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>52</td>
<td>52.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>99</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

### 4.6.5 Use of Core Banking Solutions

Figure 4.19 shows that 77.8% of the respondents strongly agreed, 13.1% agreed, 7.1% were neutral, 2% disagreed, and none strongly disagreed. The results show that the bank utilized Core Banking Solutions (CBS) to enable its customers to operate their accounts from any branch of the Bank, regardless of where their account was held.

![Figure 4.19 Use of Core Banking Solutions](image)

### 4.6.6 Quality Service

Figure 4.20 shows that 74.7% of the respondents strongly agreed, 23.2% agreed, 2% were neutral, and none disagreed and strongly disagreed. The results show that CBS had helped the bank to deliver quality and efficient services to its customers.
4.6.7 Low Cost ATMs

Figure 4.21 shows that 46.5% of the respondents strongly agreed, 25.3% disagreed, 20.2% agreed, 5.1% were neutral, and 3% strongly disagreed. The results show that the bank had deployed low cost ATMs that offered basic features such as cash withdrawal and balance enquiry for its customers.

4.6.8 Biometric ATMs

Figure 4.22 shows that 59.6% of the respondents strongly disagreed, 24.2% were neutral, 10.1% disagreed, 6.1% agreed, and none strongly agreed. The results show that the bank
did not have biometric ATMs that enabled the illiterate and semi-literate customers to access and make use of ATM services.

Figure 4.22 Biometric ATMs

4.6.9 Use of Branchless Banking
Figure 4.23 shows that 65.7% of the respondents strongly agreed, 30.3% agreed, 2% were neutral, 2% disagreed, and none strongly disagreed. The results show that the bank used branchless banking in the form of mobile phone applications to provide cost effective methods of reaching out to its customers on a broad scale.

Figure 4.23 Use of Branchless Banking
4.6.10 Use of Business Correspondents

Figure 4.24 shows that 25.3% of the respondents agreed, 23.2% strongly disagreed, 20.2% disagreed, 17.2% strongly agreed, and 14.1% were neutral. The results show that the firm did not have Business Correspondents (identified institutional agents) who supported the bank in extending its financial services and operations.

![Figure 4.24 Use of Business Correspondents](image)

4.6.11 Correlations for Technology and Financial Deepening

Table 4.22 shows that technology was an insignificant factor to financial deepening since \( r=0.033, \ p>0.05 \). The results have a p value of 0.746 which is greater than the required threshold of 0.05, thus indicating that technology is insignificant to financial deepening.

<table>
<thead>
<tr>
<th></th>
<th>Financial Deepening</th>
<th>Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Deepening</td>
<td>1</td>
<td>.033</td>
</tr>
<tr>
<td></td>
<td></td>
<td>.746</td>
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<tr>
<td>Technology</td>
<td>.033</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>.746</td>
<td></td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed)
4.6.12 Regressions for Technology and Financial Deepening

4.6.12.1 Model Summary for Technology and Financial Deepening

Table 4.23 presents the regression analysis model summary for technology (the independent variables), and financial deepening (the dependent variable). The adjusted R square value of -0.009 in the model demonstrates that technology accounts for -0.9% of the variance in financial deepening.

Table 4.23 Model Summary for Technology and Financial Deepening

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.033</td>
<td>.001</td>
<td>-.009</td>
<td>.38923</td>
</tr>
</tbody>
</table>

a. Predictors (Constant): Technology

4.6.12.2 Analysis of Variance for Technology and Financial Deepening

Table 4.24 analysis of variance (ANOVA) proves that there was an insignificant relationship between technology and financial deepening. This is because of the small size of the computed F (0.106) indicates that there was an insignificant difference in the mean distribution of the study variables at a <0.05 level of significance, indicating that the observed differences were thus insignificant.

Table 4.24 ANOVA for Technology and Financial Deepening

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>.016</td>
<td>1</td>
<td>.016</td>
<td>.106</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>14.696</td>
<td>97</td>
<td>.152</td>
<td>.746</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>14.712</td>
<td>98</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant): Technology
b. Dependent Variable: Financial Deepening

4.6.12.3 Regression Coefficients for Technology and Financial Deepening

Table 4.25 indicates that technology had a positive, but insignificant influence on financial deepening because its p value was >0.05. The coefficient of 0.033 also indicates that for every increase in technology, one would expect an increase of 3.3% in financial deepening.
Table 4.25 Regression Coefficients for Technology and Financial Deepening

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>3.610</td>
<td>.033</td>
<td>.409</td>
<td>.102</td>
</tr>
<tr>
<td>Technology</td>
<td>.033</td>
<td>.102</td>
<td>.033</td>
<td>.325</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Financial Deepening

4.7 Chapter Summary

This study examined the challenges faced by commercial banks that were associated with financial deepening. This chapter has provided the results of the analysed results. Frequency distribution has been used to indicate the distribution of respondent results, inferential statistics of correlations and regressions has been used to indicate the relationship between the independent factors (financial literacy, network access, and technology) and the dependent factor (financial deepening). The next chapter focuses on the study discussions, conclusions, and recommendations.
CHAPTER FIVE

5.0 DISCUSSIONS, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Introduction

This chapter concludes the study and has the following sections: 5.1 introduction, 5.2 summary, 5.3 discussions, 5.4 conclusions, and 5.5 recommendations for improvement and those for further studies.

5.2 Summary of the Study

This study examined the challenges faced by commercial banks that were associated with financial deepening. The study was guided by the study objectives that sought to: examine the influence of financial literacy on financial deepening at CBA Limited, to determine the influence of network access on financial deepening at CBA Limited, and to examine the influence of technology on financial deepening at CBA Limited.

Descriptive design was used to identify the relationship between strategies (independent variable) influencing financial deepening (dependent variable) at CBA. The target population of the study was all the 136 employees of CBA, and the sampling frame was the official list of employees that was acquired from the organization’s Human Resource Department. Census sampling technique was used in the study because it involves all the population elements and it ensured that the results could be applied to the entire organization. The sample size for the study was 136 because of the defined sampling technique. Primary data for the study was obtained through the administration of questionnaires that were designed according to the specific objectives of the research. The questionnaire was pre-tested to gauge its appropriateness using the Cronbach Alpha. Data was analysed using Statistical Package for Social Sciences (SPSS). Descriptive statistics which included frequencies and percentages that were calculated for easier interpretation of the results. Inferential analysis of correlations and regression analysis were used to examine the existing relationship between the study variables. The study results and findings were presented in the form of figures and tables.

The study showed that financial deepening strategies at CBA focused on consumer financial literacy so as to ensure financial stability, and financial education had greatly
helped consumers to find the information that they needed. Financial deepening strategies at CBA focused on ensuring financial accessibility and product/service awareness, and its financial literacy programs stemmed from lessons learnt from the organization's past experience. The financial deepening content at CBA concentrated on awareness regarding different forms and purposes of money used by its customers, it concentrated on teaching its consumers about financial products and processes they could use to manage risks, as well as about substitutes for financial products such as buying property, livestock or saving in banks, but it did not concentrate on awareness regarding the use of ATM machines for financial purposes.

The study revealed that regulatory burdens and the lack of infrastructure influenced the organization in expanding its banking services even though the firm was not reluctant in investing in matters of financial literacy and digital infrastructure for regional expansion. CBA had introduced “basic accounts” to facilitate simple access to deposit and payment services to its customers, and it did not impose account balances that would facilitate its customers accessing other banking products. The study indicated that the organization had promoted financial digitalization in order to facilitate customers’ access to banking, and it had “correspondents” or ‘service points” that offered a limit set of financial services acting as representatives of the organization.

The study showed that IT had enhanced the competitive efficiency of the bank by strengthening its back-end and front-end administrative processes, and this had made the firm become actively involved in harnessing technology for the development of its banking services. CBA collected IT components to facilitate its ability to conduct its business effectively and efficiently, like the use of payments technology (transmission of payment messages, payment clearing and payment settlement) to ensure its customers were able to conduct their financial transactions at low-costs. CBA utilized Core Banking Solutions (CBS) to enable its customers operate their accounts from any branch of the Bank, regardless of where their accounts were held, and this ensured the firm delivered quality and efficient services to its customers, as well as the deployment of low cost ATMs that offered basic features such as cash withdrawal and balance enquiry for its customers. The bank also used branchless banking in the form of mobile phone applications to provide cost effective methods of reaching out to its customers on a broad scale.
5.3 Discussions

5.3.1 Financial Literacy and Financial Deepening

Financial deepening strategies focused on consumer financial literacy so as to ensure financial stability. These results concur with Hannig (2014) who opines that financial deepening and consumer protection focuses on financial literacy which is necessary for ensuring financial stability and has significant relevance for financial deepening and consumer protection. Financial education had greatly helped consumers to find the information that they needed. These results are in agreement with Anurag, Farhad and Arun (2010) who state that financial education greatly helps the consumers to find suitable information from available wide information and helpful to narrow this information divide.

Financial deepening strategies focus on ensuring financial accessibility and product/service awareness. These results concur with Roa (2013) who states that there are two essential element of financial deepening, one of access and the other of awareness. The acceptance of these two elements varies country to country. For developed countries with widespread financial infrastructure, the access to financial products/services is not a matter of concern. Financial literacy programs stem from lessons learnt from their past experience. These results concur with Bruhn et al. (2013) who state that the current content of financial literacy programs has mostly stemmed from the lessons learnt from the recent financial crisis, particularly due to the fact that consumers’ lack of knowledge about new and complex financial products and services.

Financial deepening content concentrated on awareness regarding different forms and purposes of money used by its customers. These results are in agreement with Gnan, Silgoner and Weber (2007) who state that financial deepening content can cover awareness regarding different forms and purposes of money; recognition of bank notes and coins, understand the amount money is used to exchange goods and services. Financial deepening content did not concentrate on awareness regarding the use of ATM machines for financial purposes, however a significant percentage states it did. These results differ with Drexler, Fischer and Schoar (2011) who states that financial deepening content can cover the use of ATM machines to withdraw cash or to get an account balance; and checking transactions listed on a bank statement and note any irregularities.
Financial deepening content concentrated on teaching its consumers about financial products and processes they could use to manage risks. These results are in agreement with Anurag, Farhad and Arun (2010) who state that content under risk and return analysis include: following area come under it: recognition of certain financial products (including insurance) and processes (such as saving) used to manage and offset various risks (depending on different needs and circumstances). Financial deepening content concentrated on teaching its consumers about substitutes for financial products such as buying property, livestock or saving in banks. These results concur with Hannig (2014) who opines that financial deepening content could also involve knowing about the risks and rewards associated with substitutes for financial products; in particular such as saving in cash, or buying property, livestock or gold; and borrowing from informal lenders.

Financial deepening strategies incorporated the understanding of the consequences of changes in economic conditions and public policies. These results concur with Bruhn et al. (2013) who state that financial landscape also incorporates an understanding of the consequences of changes in economic conditions and public policies, such as changes in interest rates, inflation, and taxation or welfare benefits. Financial deepening strategies focused on disclosing information to consumers about all material facts so that they were aware of the implications of their choices. These results are in agreement with Zhan and Sherraden (2011) who state that tasks associated with this content area include knowledge of rights and responsibilities, and ability to apply it and providers disclosing all material facts; consumers/investors being aware of the implications of one of the parties not doing so.

5.3.2 Network Access and Financial Deepening

Regulatory burdens and the lack of infrastructure had and at the same time had not prevented the organization to expand its banking services. These results are in tandem with World Bank (2014) which notes that regulatory burdens and the lack of infrastructure have prevented a more forceful expansion of banking services. The firm was not reluctant in investing in matters of financial literacy and digital infrastructure for regional expansion. These results are in tandem with World Bank (2014) which notes that banks’ incentives to expand their activities also crucially depend on market conditions - such as financial literacy, and digital infrastructure - that due to their public good nature remain often undersupplied.
The organization had introduced “basic accounts” to facilitate simple access to deposit and payment services to its customers. These results are similar to those of Ongena, Peydro and Horen (2015) who observed that several countries have introduced the so-called “basic accounts” to reduce information asymmetries and facilitate a simple access to deposit and payment services. The organization did not impose minimum and maximum volumes to be held in basic accounts to facilitate access to other banking products. These results differ from Hawkins (2011) who noted that basic accounts typically set a maximum balance limit so that they represent a low risk for financial institutions.

The organization had promoted financial digitalization in order to facilitate customers’ access to banking. These results are in agreement with Noth and Busch (2017) who state that commercial banks have promoted financial digitalization in order to facilitate customers’ access to banking. Despite of its clear benefits, this agenda is crucially limited by peoples’ access to digital infrastructure, especially in rural areas.

The firm had “correspondents” or ‘service points” that offered a limit set of financial services acting as representatives of the organization. These results are in agreement with Noth and Busch (2017) who state that bank correspondents have been defined as service points that offer a limit set of financial services acting as representatives of financial institutions. By adapting their financial regulation, countries have allowed for the extension of banking services via these non-conventional network. The firm’s new products and financial infrastructures faced the pressure of a high regulatory burden during the implementation phase. These results differ with those of Hawkins (2011) who states that new products and financial infrastructures should not face the pressure of a high regulatory burden during their implementation phase.

The organization had the technical capacity to evaluate and assess the risk of new financial services and networks. These results are in agreement with Noth and Busch (2017) who state that an important aspects should be taken into account to ensure proportionality in financial regulation to foster financial deepening, and authorities should be provided with the technical capacity to evaluate and assess the risk of new financial services and networks. The firm’s regulation of digital finance, non-branching banking and basic deposit accounts considered regional diversity. These results are in agreement
with Noth and Busch (2017) who state that the regulation of digital finance, non-branching banking and basic deposit accounts should consider regional diversity. The organization had pulled together information on banks’ experiences in setting-up consumer protection schemes regarding new financial services. These results are in agreement with Popov and Udell (2012) who state that commercial banks should pull together information on banks’ experiences in setting-up consumer protection schemes regarding new financial services.

5.3.3 Technology and Financial Deepening

IT had enhanced the competitive efficiency of the bank by strengthening its back-end and front-end administrative processes. These results are in agreement with Martínez-Jerez, Tufano and Campbell (2012) who observe that IT not only enhances the competitive efficiency of the banking sector by strengthening back-end administrative processes, it also improves the front-end operations and helps in bringing down the transaction costs for the customers.

The firm was actively involved in harnessing technology for the development of its banking services. These results concur with de Souza (2010) who states that commercial banks have been actively involved in harnessing technology for the development of the banking sector, and Garbade and Silber (2014) notes that IT has the potential of furthering financial inclusion by making small ticket retail transactions cheaper, easier and faster for the banking sector as well as for the small customers.

The bank collected information technology components to facilitate its ability to conduct its business effectively and efficiently. These results are in agreement with Martínez-Jerez, Tufano and Campbell (2012) who observe banking technology is the collection of information technology components (hardware, software, standards and telecommunications) that help financial institutions to conduct the business of banking efficiently. The organization used payments technology (transmission of payment messages, payment clearing and payment settlement) to ensure its customers were able to conduct their financial transactions at low-costs. These results are similar to those of Garbade and Silber (2014) who state that, payments technology is a subset of banking technology that is used for the transmission of payment messages, payment clearing and payment settlement.
The bank utilized Core Banking Solutions (CBS) to enable its customers to operate their accounts from any branch of the bank, regardless of where their account was held. These results are similar with Levine and King (2013) who state that CBS is networking of branches, which enables customers to operate their accounts and avail of banking services from any branch of the bank on CBS network, regardless of where the customer maintains his/her account. The study showed that the Core Banking Solutions had helped the bank to deliver quality and efficient services to its customers. These results are similar with Levine and King (2013) who state that it is important to leverage on to this technological advancement to look at areas beyond CBS that can help in not just delivering quality and efficient services to customers but also generating and managing information effectively.

The bank had deployed low cost ATMs that offered basic features such as cash withdrawal and balance enquiry for its customers. These results are in agreement with Thorsten, Asli and Honohan (2009) who state that, in order to make the ATMs viable at these centres, there is a need to deploy low cost ATMs with basic features such as cash withdrawal and balance enquiry and should be located at places where rural folk pays frequent visits such as petrol pumps, and community towns, and it is convenient and cost effective compared to paying visit to the bank branch located at nearby centre.

The bank did not have biometric ATMs that enabled the illiterate and semi-literate customers to access and make use of ATM services. These results differ with those of Mas (2009) who states that introduction of Biometric ATMs may enable the illiterate and semi-literate customers to avail ATM facilities on par with literate customers. Under this, Thumb impression of the cardholder will be scanned and transfer the same to central server as one time measure.

The bank used branchless banking in the form of mobile phone applications to provide cost effective methods of reaching out to its customers on a broad scale. These results are similar to those of Mas and Ng’weno (2011) who observed that branchless banking goes further, including non-bank retail outlets for banking activities and the use of technology such as mobile phones or cards for the identification of customers or as a store of value.
The firm did not have Business Correspondents (identified institutional agents) who supported the bank in extending its financial services and operations. These results differ with those of Popov and Udell (2012) who state that the Business Correspondent model envisages the use of identified institutional agents, organizations and other entities for supporting the Bank in extending Financial Services, operating from different locations away from the Bank branches.

5.4 Conclusions

5.4.1 Financial Literacy and Financial Deepening

The study concludes that financial deepening strategies at CBA focused on consumer financial literacy so as to ensure financial stability, and financial education had greatly helped consumers to find the information that they needed. Financial deepening strategies at CBA focused on ensuring financial accessibility and product/service awareness, and its financial literacy programs stemmed from lessons learnt from the organizations past experience. The financial deepening content at CBA concentrated on awareness regarding different forms and purposes of money used by its customers, it concentrated on teaching its consumers about financial products and processes they could use to manage risks, as well as about substitutes for financial products such as buying property, livestock or saving in banks, but it did not concentrate on awareness regarding the use of ATM machines for financial purposes. The study determined that financial deepening strategies in the organization incorporated the understanding of the consequences of changes in economic conditions and public policies, and they focused on disclosing information to consumers about all material facts so that they were aware of the implications of their choices.

5.4.2 Network Access and Financial Deepening

The study concludes that regulatory burdens and the lack of infrastructure influenced the organization in expanding its banking services even though the firm was not reluctant in investing in matters of financial literacy and digital infrastructure for regional expansion. CBA had introduced “basic accounts” to facilitate simple access to deposit and payment services to its customers, and it did not impose account balances that would facilitate its customers accessing other banking products. The study determined that the organization had promoted financial digitalization in order to facilitate customers’ access to banking, and it had “correspondents” or ‘service points” that offered a limit set of financial
services acting as representatives of the organization. From the study, it can be concluded that the firm’s new products and financial infrastructures faced the pressure of high regulatory burden during the implementation phase, even though it had the technical capacity to evaluate and assess the risk of new financial services and networks. The firm’s regulation of digital finance, non-branching banking and basic deposit accounts considered regional diversity, and the organization pulled together information on banks’ experiences in setting-up consumer protection schemes regarding new financial services.

5.4.3 Technology and Financial Deepening
The study concludes that IT had enhanced the competitive efficiency of the bank by strengthening its back-end and front-end administrative processes, and this had made the firm become actively involved in harnessing technology for the development of its banking services. CBA collected IT components to facilitate its ability to conduct its business effectively and efficiently, like the use of payments technology (transmission of payment messages, payment clearing and payment settlement) to ensure its customers were able to conduct their financial transactions at low-costs. CBA utilized Core Banking Solutions (CBS) to enable its customers operate their accounts from any branch of the Bank, regardless of where their accounts were held, and this ensured the firm delivered quality and efficient services to its customers, as well as the deployment of low cost ATMs that offered basic features such as cash withdrawal and balance enquiry for its customers. The bank also used branchless banking in the form of mobile phone applications to provide cost effective methods of reaching out to its customers on a broad scale. The study concludes that CBA did not have biometric ATMs that would enable the illiterate and semi-literate customers to access and make use of ATM services, and neither did it have Business Correspondents (identified institutional agents) who supported the bank in extending its financial services and operations.

5.5 Recommendations
5.5.1 Recommendations for Improvement
5.5.1.1 Financial Literacy and Financial Deepening
The study recommends the management of CBA to ensure that their financial deepening content focuses on teaching their illiterate consumers about the use of ATM machines for financial purposes. This would facilitate the bank to grow its customer numbers in terms of ATM access.
5.5.1.2 Network Access and Financial Deepening
The study recommends the management of CBA to work closely with regulators and policy makers to ensure that their new products and infrastructures are within the regulatory framework of the country to minimize the challenges they face during the implementation phase.

5.5.1.3 Technology and Financial Deepening
The study recommends CBA management to focus on introducing biometric ATMs and touch pads to enable the illiterate and semi-literate customers to open accounts with the bank, and to facilitate their ability to access and make use of ATM services. CBA management should also focus on creating business correspondents that will support the bank in extending its financial services and operations to local areas and residences.

5.5.2 Recommendations for Further Studies
The study focused on strategies influencing financial deepening in financial institutions with a focus on CBA. The study recommends that similar studies be conducted in other financial institutions to facilitate the understanding of factors influencing financial deepening. Future scholars need to examine other factors that influence financial deepening beyond the three that were observed in this study.
REFERENCES

63


Phillip Kayongo,
P.O. Box 30437 – 00100,
Nairobi.
Cell: 0719 573 141
Email: philipkayongo@gmail.com

Dear Respondent,

08th August 2017.

RE: Request to Participate in a Research Study.
I am a graduate student at the United States International University – Africa pursuing a Master’s Degree in Business Administration program. As part of my requirement in fulfilment of the degree, I am required to conduct a research on “STRATEGIES INFLUENCING FINANCIAL DEEPENING IN FINANCIAL INSTITUTIONS: A CASE OF COMMERCIAL BANK OF AFRICA LIMITED” and your organization is part of my case study. Kindly note that this is an academic research and confidentiality will be strictly adhered to. The results of this study will be used for academic purposes only. Kindly spare some time and fill the attached questionnaire. For any clarification, kindly get in touch with the researcher through the contacts provided.

Yours Sincerely,

Phillip Kayongo
APPENDIX II: QUESTIONNAIRE

Please answers all questions by choose the appropriate response by ticking (✓) in the space provided. Please tick against one response only:

Section A: General Information

1. Please indicate your gender.
   Male [ ]   Female [ ]

2. Kindly indicate your level of education
   Secondary [ ]   College [ ]   Undergraduate Degree [ ]
   Master’s Degree [ ]   Other [ ] Specify _______________________________

3. How long have you been working with the organization?
   1-5 years [ ]   6-10 years [ ]   11-15 years [ ]
   16 years and above [ ]

4. Kindly indicate your position in the organization.
   Senior manager [ ]   Operational manager [ ]
   Line manager/ Supervisor [ ]   Regular staff [ ]

5. Are you aware of CBA’s financial deepening strategies?
   Yes [ ]   No [ ]   No Idea [ ]
Section B: Influence of Financial Literacy on Financial Deepening

6. Given the scale ‘1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree’ how would you rate the following statements in your organization?

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial deepening strategies focuses on consumer financial literacy so as to ensure financial stability</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial education has greatly helped consumers to find the information that they need</td>
<td></td>
<td></td>
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<tr>
<td>Financial deepening strategies focus on ensuring financial accessibility and product/service awareness</td>
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<tr>
<td>The financial literacy programs stem from lessons learnt from their past experience</td>
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<tr>
<td>Financial deepening content concentrates on awareness regarding different forms and purposes of money used by its customers</td>
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<tr>
<td>Financial deepening content concentrates on awareness regarding the use of ATM machines for financial purposes</td>
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<tr>
<td>Financial deepening content concentrates on teaching its consumers about financial products and processes they can use to manage risks</td>
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<tr>
<td>Financial deepening content concentrates on teaching its consumers about substitutes for financial products such as buying property, livestock or saving in banks</td>
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<tr>
<td>Financial deepening strategies incorporate the understanding of the consequences of changes in economic conditions and public policies</td>
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<tr>
<td>Financial deepening strategies focuses on disclosing information to consumers about all material facts so that they are aware of the implications of their choices</td>
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Section C: Influence of Network Access on Financial Deepening

7. Given the scale ‘1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree’ how would you rate the following statements in your organization?

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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</thead>
<tbody>
<tr>
<td>Regulatory burdens and the lack of infrastructure have prevented the organization to expand its banking services</td>
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<td>The firm is reluctant in investing in matters of financial literacy and digital infrastructure for regional expansion</td>
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<tr>
<td>The organization has introduced “basic accounts” to facilitate simple access to deposit and payment services to its customers</td>
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<tr>
<td>The organization imposes minimum and maximum volumes to be held in basic accounts that facilitates access to other banking products</td>
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<td>The organization has promoted financial digitalization in order to facilitate customers’ access to banking</td>
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<td>The firm has “correspondents” or ‘service points” that offer a limit set of financial services acting as representatives of the organization</td>
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<tr>
<td>The firm’s new products and financial infrastructures do not face the pressure of a high regulatory burden during the implementation phase</td>
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<td>The organization has the technical capacity to evaluate and assess the risk of new financial services and networks</td>
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<tr>
<td>The firm’s regulation of digital finance, non-branching banking and basic deposit accounts considers regional diversity</td>
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<td>The organization has pulled together information on banks’ experiences in setting-up consumer protection schemes regarding new financial services</td>
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</table>
## Section D: Influence of Technology on Financial Deepening

8. Given the scale ‘1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree’ how would you rate the following statements in your organization?

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
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<tr>
<td>Information Technology has enhanced the competitive efficiency of the bank by strengthening its back-end and front-end administrative processes</td>
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<td>The firm is actively involved in harnessing technology for the development of its banking services</td>
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<td>The bank collects information technology components to facilitate its ability to conduct its business effectively and efficiently</td>
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<td>The organization uses payments technology (transmission of payment messages, payment clearing and payment settlement) to ensure its customers are able to conduct their financial transactions at low-costs</td>
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<td>The bank utilizes Core Banking Solutions (CBS) to enable its customers to operate their accounts from any branch of the Bank, regardless of where their account is held</td>
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<td>CBS has helped the bank to deliver quality and efficient services to its customers</td>
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<td>The bank has deployed low cost ATMs that offer basic features such as cash withdrawal and balance enquiry for its customers</td>
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<td>The bank has biometric ATMs that enable the illiterate and semi-literate customers to access and make use of ATM services</td>
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<td>The bank uses branchless banking in the form of mobile phone applications to provide cost effective methods of reaching out to its customers on a broad scale</td>
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<td>The firm has Business Correspondents (identified institutional agents) who support the bank in extending its financial services and operations</td>
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**THANK YOU**