

**DIGITALIZATION AND INTERNATIONAL MARKET PENETRATION OF  
KENYAN COMMERCIAL BANKS**

**BY**

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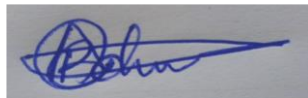
**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT  
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## DECLARATION AND APPROVAL

The research project is original work and never has it been presented for any award in any learning institution. This is an academic requirement that cannot be replicated without earlier composed authorization of the creator as well as the University.

**Signature**



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## SUPERVISOR'S APPROVAL

This research project has been submitted for review with my endorsement as the University Supervisor.

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## **DEDICATION**

First and foremost, I would like to dedicate this project to my Two Sons; Mpenzi Itally and Jeff Mzuri. Mpenzi was born at the beginning of my Studies during the Covid 19 era and has seen Mummy through the entire project period, Mzuri has been instrumental in reminding me to attend my classes on time both in person and online. Secondly, to my Mum Elizabeth Warom who has been encouraging me to put my best foot forward and my brother Geoffrey Otieno for his immense support and encouragement.

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## **LIST OF ACRONYMS AND ABBREVIATIONS**

<b>EAC:</b>	East African Community
<b>CBK:</b>	Central Bank of Kenya
<b>DIT:</b>	Diffusion of Innovation Theory
<b>KBA:</b>	Kenya Bankers Association
<b>TCE:</b>	The Transaction Cost Economics

## ABSTRACT

With the help of digitalization, companies can create new network systems and business models, alter international economic relations, and find creative ways to power their operations in global markets. To stay ahead of the competition and increase their market share, digitalization has become an essential strategy for Kenyan commercial banks. Kenyan commercial banks are experiencing massive digitization in an effort to break into foreign markets; hence the results of previous studies may not be applicable to them. Finding out how digitization has affected Kenyan commercial banks' ability to break into foreign markets was the driving force for this research. The Uppsala model and the notion of transaction costs in economics were supplementary to the Diffusion of Innovation theory, which served as the research's primary theoretical framework. The research used a descriptive research design that was cross-sectional. Six overseas branches of Kenyan commercial banks served as the research's unit of analysis. Group directors from the following departments: technology, business, marketing and communication, shared services, corporate affairs, and finance were among the 36 executive regional managers who took part in the survey. We distributed the questionnaire to the participants. The research relied on secondary data collection methods. Descriptive and inferential statistics were employed to analyze the primary data, and secondary data was consulted to support the results of the primary data analysis. According to the research, all six of the commercial banks have increased their client growth rate and digitized some aspect of their operations or services. Additionally, the study discovered that digitalized customer care, foreign market expansion, and mobile and internet banking all have a strong favorable link. Furthermore, the combined effect of the two independent variables (digitized customer care, internet banking, and mobile banking) accounts for 91.1% of the variation in worldwide market penetration (Adjusted R square). Digitalization significantly affects penetration into foreign markets, according to the study. According to the research, commercial banks can position themselves strategically by taking use of the opportunities presented by digitalized platforms to sell their products and services. Digitalizing their products and services is also important since it gives marketing management and authorities a strategic instrument to break into new markets both locally and globally.

# CHAPTER ONE: INTRODUCTION

## 1.1 Context of the Study

Businesses across industries who are looking to break into global markets have found digital technology to be a powerful tool since the fourth industrial revolution (Vadana, Kuivalainen, Torkkeli, & Saarenketo, 2021). With the help of digitalization, companies can create new network systems and business models, which in turn can change global economic relations and propel innovative solutions in worldwide markets. Multinational firms have been able to take advantage of enormous potential presented by digitalization in today's globally integrated economy (Zou's et al., 2021). According to Leonidou and Zeriti (2019), digital technology can help multinational corporations (MNCs) with their marketing penetration plans as they go global. Companies have been able to overcome obstacles to worldwide operations thanks to digital technology advancements and the widespread use of social media (Javalgi et al., 2012). Therefore, businesses are able to provide their services and products to customers all over the world, thanks to digitalization, international trade, and the preferences of new consumers.

The relationship between digitalization and international market penetration was premised on the Diffusion of Innovation Theory (Rogers, 2004) which posits that the speed at which innovation such as digitalization is adopted by a market depends on how much time it will succeed in penetrating the global market. The Diffusion of Innovation theory was complemented by Uppsala Internationalization Process Model (Vahlne & Johanson, 2020) and the Transaction Cost Economics Theory (Williamson, 1986). The Uppsala model suggests that internationalization is an incremental process, where companies internationalize their business by acquiring resources such as digital technologies to penetrate foreign markets. The Transaction Cost Economics (TCE)

theory posits that digitalization can facilitate beneficial transactions between businesses to enhance market penetration through reduction of transaction costs.

Kenyan commercial banks have been compelled to use digitalization as a key strategy to stay up with the competition, maintain, and grow their market share. The world economy has gone digital and become integrated as people move from one country to another and conduct international business. The emergence of e-commerce platforms and virtual business has led to high demand for cross-border and cashless money transfers. Through digitalization, Kenyan commercial banks have penetrated the global markets by offering a variety of customer experiences, diversifying revenue streams, and enhancing efficiency. According to the Banking Sector Innovation survey (2020), Kenyan commercial banks have innovatively used technology to expand their service and product offerings in the local and international markets. In addition, a report by CBK (2021) showed that Kenyan Commercial Banks have enhance their digital technology abilities to offer quality services and products. The adoption of Smart Phone, Mobile Money transfer services and social media platforms have prompted banks to invest in digital banking and marketing. The CBK, (2021) report further states that Kenyan Commercial Banks have adopted internet, mobile, and mobile application banking in the financial markets in Uganda, Rwanda, Tanzania, and South Sudan (CBK, 2021). Some of the aspects of digitalization that Kenyan banks have adopted are data analytics, internet banking, and mobile banking to offer financial and non-financial services. It is within this context that a study was warranted to determine how digitalization has facilitated international market penetration by Kenyan Commercial Banks.

### **1.1.1. Digitalization**

Scholars disagree on what digitalization actually entails. Brennen and Kreiss (2016) state that digitalization is the process of reorganising various parts of society around digital technology, including digital communication. According to Branca et al. (2002), digitalization is the process of converting business models, interactive interactions, and corporate functions into digital material. A company's business model undergoes digital change at both the strategic and tactical levels (Mazzone, 2014). According to Schallmo et al. (2017), digitalization is the process of changing business practises by incorporating new technology. When it comes to everyday life, however, digitalization is seen by Grey & Rumpe (2015) as the incorporation of technology into anything that can be digitised. According to Gartner (2018), digitalization is the process of transforming a company model through the use of digital technology in order to provide new prospects for revenue and value creation. Adopting technology to transform business models, get new revenue streams, and add value to products and services is what digitalization is all about (Gartner and Valero, Climent, & Esteban (2020). Also, according to Valero et al. (2020), digitalization is when a company uses technology to transform its business model, increase its revenue, and improve the quality of its operations. This study will use Grey & Rumpe's (2015) definition of digitalization as the process of integrating digital technologies with digitised content to promote international market penetration. This definition is based on the fact that digitalization is all about creating and sharing new business models that consumers seek.

A vital resource that can help the organisation respond fast to consumer requests and global market changes is digital mastery. Chatbots, automated transactions, identification, and order processing are only a few examples of the many automated operations that Brennen and Kreiss (2016) call digitalization. In addition, to manage

the organization's finances, customers, and employees, digitalization involves employing information systems to capture, process, analyse, and provide a report that may be utilised for decision-making (Grey & Rumpe, 2015). Software that helps with customer service and product delivery is also part of it. Further evidence of digitization can be found in online communication platforms and digital marketing tactics. Digital data (i.e., the internet of things and big data), digital consumer access (i.e., social networks and mobile applications), and connectivity (i.e., cloud computing) were named as the levers of digitalization in the Roland Berger BDI study (2015). An appealing internationalisation medium, the internet has enabled businesses to advertise their wares to both domestic and foreign customers and vendors (Zen & Faizin, 2021). By providing comprehensive information on the features, prices, and quality of their goods and services, businesses may advertise them on their websites, which helps them stand out from the fierce competition. Internet banking, mobile banking, and digitalized customer support were therefore included as indices of digitalization in this study.

### **1.1.2. International Market Penetration**

Internationalization is a business strategy where a business or firm seeks to extend its operations into foreign markets. According to Dara (2017), international market access is a portion of the use of the product or service in the foreign market compared to the estimated supply. Bota (2016) defines international market penetration as a way to introduce a new product into the global market that already has existing or comparable items from an organization. Farris, Bendle, Pfeifer, & Reibstein (2006) define market penetration as “the successful selling of a good or service in specific global markets as measured by the amount of sales volume of an existing good or service compared to the total target market for that product or service”. Since international market access is

the method a business organization does to increase or further dominate the market in which they currently operate, this study did adopt the definition of international market penetration to be the process of a firm introducing products and services and increasing its dominance in the already existing foreign market.

Multiple scholars have proposed different models and methods for gauging the extent to which a company has penetrated foreign markets. Kinyanjui (2019) says, if you want to know how deep you've gone into a market, you can look at things like increasing your product or service's market share, achieving dominance in existing markets, transforming an established market by monopolising it, eliminating competitors, driving up consumption among existing customers, and return on sales. Market share, sales volume, income, and profit are the performance measures for market penetration strategies (Kukartsev et.al., 2020). According to Haniri (2020), stealing market share from rivals is a metric for market penetration strategies. By expanding product or service consumption by current customers or driving competitors out of the market, market penetration seeks to increase market share, dominate current markets, and acquire monopoly of the markets (Coper, 2019). This study defines worldwide market penetration as the increase in customers, since this is the path to dominance in a company's current global marketplaces. In their definition of customer growth, Kim, Kim, and Hwang (2020) state that businesses employ techniques to increase demand for their goods and services.

### **1.1.3 Kenyan Commercial Banks**

Kenyan commercial banks have embraced digitalization in order to expand their operations beyond their borders. A report published by the Central Bank of Kenya states that Kenya has seen an expansion in commercial banks due to increased innovation and the arrival of new local and international competitors. Kenyan Commercial Banks

invested in digital technologies to improve efficiencies and tap into the vast opportunity of digitization (Central Bank of Kenya, 2020). A majority of Kenyans have adopted the use of smart phones and social media. Moreover, the nearly universal usage of mobile money transfers in the country has created an opportunity for Kenyan commercial banks to integrate banking services and mobile payment wallets. Moreover, according to the Central Bank of Kenya report (2021), shows that data analytics have been embraced by Kenyan commercial banks used in consumer and market analysis. The report further states that the commercial banks have continued to ramp up their innovation efforts towards developments in digital technologies to enhance their global presence.

According to the CBK Bank Supervision Annual Report (2021), Kenyan banks have expanded in the East African Community (EAC) Partner States and also in the Democratic Republic of the Congo (DRC). These banks include KCB Group Holdings Plc, Diamond Trust Bank Group, NCBA Group Plc, Guaranty Trust Bank Kenya Limited, Equity Group Holdings Plc, I&M Holdings Plc, African Banking Corporation Limited, and The Co-operative Bank of Kenya Limited (CBK, 2021). They have positioned themselves to capitalise on the growing cross-border trade flows. In addition to having a presence within the EAC Partner States and DRC, some of the Kenyan banks, such as I&M Holdings Plc and Prime Bank Limited, have expanded beyond the EAC jurisdiction. I&M Holdings Plc has a 50 percent shareholding in Bank One Limited in Mauritius, Prime Bank Limited has an 11.24 percent shareholding in First Merchant Bank Limited in Malawi, and Capital Bank of Botswana has a 10.96 percent shareholding.

The rapid digital revolution in Kenya's commercial bank sector has been supported by the Central Bank of Kenya (CBK) and the Communications Authority of Kenya, the



telecommunications regulator. Such a supportive policy environment with a sound regulatory and supervisory framework has allowed commercial banks to introduce financial innovations and diversify products both locally and regionally (Ndung'u 2017). Consequently, Kenyan Commercial Banks have adopted internet, mobile, and mobile application banking in the financial markets in Uganda, Rwanda, Tanzania, and South Sudan (CBK, 2021). According to the CBK Innovation Survey (2021), Kenyan commercial banks have prioritised customer-centricity in innovation by leveraging ICT-related applications and enablers and other emerging digital technologies in the areas of digital lending, artificial intelligence, super applications, and machine learning and investing in digital-only banks. Currently, the use of mobile banking stands at 58%. According to a report by the Kenya Bankers Association (2022), the versatility of banking mobile apps has enabled customers to conduct their transactions via the internet and mobile banking platforms as they offer one-stop access to most of the financial and non-financial services. Thus, by utilising alternative delivery mechanisms like e-banking and m-banking, commercial banks have sought to improve global clients' exposure to their goods and services while setting themselves apart from the global competition (Central Bank of Kenya Annual Report, 2020). The paradigm shift towards digitalization by Kenyan commercial banks is the basis of enhanced efficiency, whose outcome is increased market share through international market penetration. In this context, there is a need to investigate the role of digitalization in the international market penetration of Kenyan commercial banks.

## **1.2 Research Problem**

Digitalization enables firms to efficiently identify and penetrate new global markets, thus saving resources to enable a firm to seek for more attractive markets (Neubert, 2018). A study by Vadana et al. (2021) established that digitalization creates new

opportunities for international growth by born digital firms. Zou's et al., (2021) study on digitalization transformation and sustainable efficiency improvements of Chinese commercial banks, found out that digitalization had a helpful and important influence on efficiency. In his research, Otieno (2020) established that digital banking technologies help to improve revenue and profits of commercial banks in Kenya. Isa-Olatinwo et al. (2022) on digital financial services and financial performance of Commercial Banks in Nigeria revealed a positive relationship between digital financial services (DFS) and bank financial performance. However, a study by Sanchez – Riofrio et al., (2022) demonstrated that in developing countries, the institutional environment characteristics can constrain or discourage digitalization. The studies cited above have highlighted a number of research gaps, resulting in contradictory findings. Most of the studies focused on the influence of digitalization on performance and were conducted in different countries and sectors. This has raised pertinent research gaps that this study did address.

The Kenyan commercial banking sector is increasing the use of technology to ensure it meets the needs of the customers. According to the Central Bank of Kenya innovation survey report (2021), the banking sector has prioritized customer-centricity in their digital innovations. The banks have leveraged their operations through the mobile-phone-based financial services innovations platform, including M-Pesa, a money-transfer system that has gradually evolved into real-time retail payments, virtual savings, credit supply platforms and e-commerce. Kenyan commercial banks consider digital technologies such as data analytics, and integration mobile money transfers important for success in the local market. Digitalization have enabled commercial banks to develop new products, shortened service delivery lead times, increased

customer happiness and penetration of the global markets through the broadening of the delivery possibilities.

Several studies have been conducted on digitalization and global market penetration. A study by Coviello et al. (2017) and Brouthers et al. (2018) found that digitalization had a positive and significant influence on international market penetration as it helped organizations manage risks associated with additional costs resulting from operating in a foreign market. A study by Strange & Zucchella (2017) asserted that digitalization reduced transaction costs in cross-border markets and thus increase its market presence. A study by Neubert (2018) established that lean global startups benefited from digitalization through efficient decision making when evaluating foreign markets. Moreover, in their study Vadana et al., (2021) on how digitalization plays a role in international market penetration strategy, they found that born digital companies got new opportunities in foreign markets due to digitalization of value chain activities. Zuo, L., Strauss, J., & Zuo, L. (2021) study on the digitalization and sustainable efficiency of Chinese commercial banks, established that investing in digitalization positively and significantly improved service efficiency. Pot et al., (2022) on the impact of digitalization on performance of Russian Commercial Banks showed that it positively and significantly improved customer transactions and net commission income. The above cited studies have revealed a number of conceptual and contextual research gaps that this study seeks to address. Conceptual gaps emerge as the studies focused on the role of digitalization on reducing transaction costs and foreign market risks, other studies focused on the role of digitalization on enhancing growth and performance. Contextual gaps emerge as the study settings were conducted in Europe and Asia. Agboola (2019) studied the effects of digitalization on the performance of commercials in Nigeria and the findings revealed digital technologies improved banking services. A

survey by Cornelius & Kwon (2018) on the impact of digitalization in East Africa's banking retail sector, revealed that digitization and consumer preferences significantly impacted on retail banks' adaption strategy. A study conducted by Louw & Nieuwenhuizen (2020) on digitalization strategies in South African commercial banks, revealed that mobile-optimized services was the most critical digital business strategy adopted by South African commercial banks.

A case study approach by Fute & Lyimo (2019) on the impacts of the digital marketing on performance of Barclays Bank in Tanzania, established that the bank's use of social media marketing offered relevant and customized information to clients thereby enhancing brand awareness. A similar study by Kafuuma (2021) on digital adoption by customers of Absa Bank in Kampala, Uganda, found out that the bank had adopted a variety of digital banking platforms that included intelligent-Automated Teller Machines (ATMs), internet banking, Mobile banking and WhatsApp banking. The cited studies have highlighted a number of conceptual and contextual gaps. Conceptual gaps emerge as the studies focused on the influence digitalization on the strategies adopted or on performance. Contextual gaps emerge as the study settings were conducted in other African countries whose findings cannot be generalized to apply to this present study.

Various studies have been done on digitalization on Kenyan commercial banks. Mwangangi (2017) study established a substantial influence of digitalization on the performance of Kenyan commercial banks. Otieno & Ndede (2020), established digital banking services have enhanced profitability of commercial banks in Kenya. Masolo & Wanjohi (2021) study showed that mobile network operator, website and application based loans respectively, had a positive and significant influence on selected commercial banks in Kenya. In his study, Makau (2021) established that adoption of

social media marketing helps banks to gain competitive advantage. Njau & Kimenchi (2022) study demonstrated that digital innovation positively and significantly improved performance of the KCB Bank Branches. The studies cited have revealed a number of conceptual gaps in research. The studies mainly focused on establishing the influence of digitalization on performance or competitive advantage or on the type of digital platforms adopted by commercial banks in Kenya.

Existing empirical knowledge on digitalization and international market penetration have revealed conceptual and contextual research gaps. Most of the studies cited so far have focused on establishing relationships between digitalization and performance, competitive advantage and growth. Studies have also operationalized digitalization differently, thus raising a conceptual gap. In addition, studies have been done in different contextual settings and their findings may not apply to Kenyan commercial banks undergoing significant digitalization that is aimed to penetrate the international markets. To address these gaps, the following research question emerged: What is the influence of digitalization on international market penetration of Kenyan commercial banks?

### **1.3 Research Objective**

The objective of this research was to determine the influence of digitalization on international market penetration by Kenyan commercial banks.

### **1.4 Value of the Study**

For the researchers and academicians, the study findings would enable them to highlight the importance of the digitalization and its role in influencing international market penetration. The Diffusion of Innovation theory as applied in this study would provide a theoretical framework of digitalization and integrate arguments from the Uppsala model and Transaction Cost Economics theories, to get a more complete picture of the

inferences of causation of international market penetration by making clear the linkages between digitalization and international market penetration.

The study findings did aid practitioners and management consultants to have a clear understanding of the role of digital platforms on influencing international market penetration. The findings would further aid the consultants, to offer advice to managers of Kenyan commercial banks operating in different international contextual settings, on the appropriate digital platforms and to offer recommendations on the appropriate digital platforms to be adopted to enhance their international market penetration objectives

Since Kenyan commercial banks has an important role in Kenya's socio – economic development process, the study would contribute to a policy framework on how commercial banks could improve their international market penetration goals by investing in appropriate digital platforms as a core component of their transformative global presence. The study findings would aid the top management of Kenyan commercial banks to formulate a policy framework for the seamless alignment of digitalization in their global operations for enhanced international market penetration. This study would enable the government through the National Treasury to formulate appropriate digitalization policies, in tandem with regulatory and legislative structures.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 Introduction**

The conceptual basis for the relationship between digitalization and international market penetration is presented in this chapter, along with an overview of the empirical research in this area. In order to resolve the research question and construct the conceptual framework, the study did identify the research gaps in this section.

### **2.2. Theoretical Framework**

This study's main theory was the Diffusion of Innovation theory (Rogers, 1962), which predicts that the time path of adopting new digital technologies in a market is based on communication and interaction between customers and the influence of the organization's marketing-controlled activities. The Diffusion of Innovation Theory was complemented by the Uppsala Model Theory (Johanson & Vahlne, 1977), which postulates that once organizations have established their presence in their domestic market, it then increases their commitment and resources, such as the use of digital technologies in global markets in phases after attaining adequate knowledge of the conditions of the foreign markets. The Transaction Cost Economics theory (Williamson, 1985) suggests that firms are determined to reduce costs with all transactions by internally or externally managing resources based on the transaction cost.

#### **2.2.1 The Diffusion of Innovation Theory (DIT)**

The DIT posits that services, products or ideas gradually gain popularity and use in a specific market segment (Rogers, 1962). The theory highlights how people ultimately adopt a new idea, behaviour, or product through elements of innovation, communication channels, time and a marketing system (Rogers, 2010). DIT explains the process customers or markets go through to adopt a new idea, such as a new digital

technology (Rogers, 2010). Thus, DIT predicts the time to adopt new technologies in a market, using concepts of communication and interactions between customers and the influence of marketer-controlled activities (Rangaswamy & Gupta, 2018). Organizations should perceive a service innovation such as digitalization as new if it helps to address some unique market needs.

Even though DIT encourages adoption of digitalization as internationalization strategy, it does not recommend specific aspects of digitalization that organizations can adopt to enhance in international market penetration. Therefore, critics hold the view that organization needs to be specific on which innovations are effective in international market penetration. Despite the criticisms, DIT is vital to this study as it explains that once digitalization as an innovation is adopted by the majority of the customers or markets, the organization can change its communication strategy to either reflect on how digitalization is enhancing international market penetration, discuss reinventions as new applications of digitalization or move on to newer digital technologies. Thus, the theory examines how information is globally communicated to global customers over time through digital technology innovations to penetrate international markets.

### **2.2.2 Uppsala Internationalization Process Model**

The Uppsala Internationalization Process Model posits that a firm should first strongly establish its operations and again a fair share of domestic market then commit its resources in foreign markets gradually from one step to another once they gain understanding of dynamics of the foreign market (Johanson & Vahlne, 1977). The model emphasizes that firms should first have in-depth knowledge of local market and succeeds before thinking of internationalization. Therefore, internationalization is gradual process beginning from the local market then advancing to foreign markets (Johanson & Vahlne, 1977). Moreover, learning the foreign market is also a slow



process. According to the mode a firm can enter a foreign market through subsidiaries, exportation or setting a factory and full operations in the target country (Hollensen, 2007).

The Uppsala Internationalization Process model is an appropriate framework for guiding organizations to explore and exploit new opportunities in the international market (Ucbasaran, Wright, & Westhead, 2010). Thus, organizations integrate the Uppsala Internationalization Process model with the latest digital technologies to enhance international market penetration (Cavusgil & Knight, 2015). Thus digitization has played an important role in streamlining the internationalization process and reducing costs. However, the model has been criticized because it is not the most appropriate method of analyzing an organization's internationalization market penetration behavior due to changes attributed to technological advancement

### **2.2.3 Transactional Cost Economic Theory**

Transaction Cost Economics (TCE) theory (Williamson, 1996) posits that understanding when it is more efficient for a transaction between two parties to occur within the market is important. According to TCE, non-specific transactions between trading partners are best transacted through the market mechanism where incentives to produce at low costs are strong. TCE postulates that through market exchanges, organizations will adopt the most cost-effective arrangements that offer the best protection for their relationship-specific outlays (Williamson, 1985). Transaction Cost Economics theory supports the use of digital technologies to reduce market imperfections in the economic system (Cordella, 2006). Consequently, TCE has proven useful in understanding the nature of transactions leveraged through digitalization and international market penetration in a global context. The theory asserts that institutions often determine when it is optimal to engage in an international transaction (Nagle et

al. 2020). Thus, when engaging in internationalization, organizations must strive to minimize transaction costs through digitalization to access the international market.

### **2.3 Digitalization and International Market Penetration**

Various global, regional and local studies have been done on digitalization and international market penetration. A study by (Tan, 2021) established that digitalization enables organizations to choose Greenfield venture as their preferred mode of entry in today's digital context. A contextual gap emerges in the study, focusing on a sample of 535 organizations based in Singapore. A study by Neubert (2018) established that digitalization helps lead global start-up firms to evaluate various foreign markets. A conceptual emerges since the study focuses on how digitalization enhances the evaluation of international markets, while this study will focus on digitalization and its influence on international market penetration. A case study by Vadana et al. (2021) established that digitalization help Finland born-digital firms to establish operations in other markets. A conceptual and contextual gap emerges as the study focused on value chain activities as an enabler of the international growth of digital organizations in Finland.

Moreover, Potapova et al. (2022) studied the role digitalization on the performance of commercial banks in Russia. The findings showed that digitalization enhances financial performance of Russian banks. The findings by Zuo et al. (2021) on the influence of digitalization on the sustainable efficiency of Chinese commercial banks established that it was positive and significant. A conceptual gap emerges as the studies focused on performance and sustainability, not international market penetration. On the contrary, a study by Kornelakis et al. (2022) found that banks that adopted digitalization experienced increased costs. Giotopoulos et al. (2017) confirmed that a lack of resources, knowledge commitments and skills on digital opportunities undermined the

influence of digitization in accelerating the internationalization pace and performance of businesses.

Study findings by Agboola et al. (2019) in his investigation on the impact of digitalization on the performance of banks in Nigeria established a favourable but moderate relationship. The study, however, focused on performance and not international market penetration. Louw & Nieuwenhuizen (2020) study on digitalization strategies in South African banks identified mobile-banking services as the key digital business strategy. A contextual gap emerges as the study was conducted in South Africa. A study by Lurinola et al. (2021) on digitalization and innovation in Nigerian firms established that it increased the ability of the firms to innovate and become productive. A study by Chindudzi et al. (2020) on the influence of digital banking on commercial banks' performance in Zimbabwe established that it positively and significantly performs through increased online customer deposits and banking transactions. A conceptual gap emerged in these studies as they did not investigate digitalization and international market penetration. Abraham's (2018) established that individual, social and organizational factors influenced the adoption of digital marketing technologies by commercial banks in Tanzania. A conceptual gap emerges in the study as it focused on factors rather than establishing a relationship between digitalization and international market penetration

Studies conducted in Kenya have mainly focused on the influence of digitalization on various performance indicators, thus the emergence of conceptual gaps. Onyango & Ondiek's (2021) study on the influence of digitalization on the integration of sustainable development goals (SGDs) in public organizations in Kenya revealed a negative relationship due to resistance to change, limited knowledge of digital skills and training of staff, weak internet connectivity and poor investment in digital platforms by the

government entities. Njagi & Ndavula (2020) on the influence of digital technologies on the digital transformation of Kenya airways showed that adopting customer journey maps and employee performance tracking technologies had the most significant and positive impact on the transformation of Kenya Airways.

In the context of Kenyan commercial banks, a study by Otieno & Ndede (2020) on the adoption of digital banking technology and financial performance found that there is a favourable relationship between the adoption of digital banking and financial performance of Kenyan Commercial Banks. Moreover, Makau (2021) investigated the role of digital marketing on gaining competitive edge by commercial banks in Kenya and established a positive relationship between competitive advantage and digital marketing and search engine optimization. In his study Kinyanjui (2020) investigated the relationship between digital transformation process and customer relationship management amongst commercial banks in Kenya. The findings revealed a positive relationship between digitalization such as automation of services, digital communication and customer relationship management. A conceptual gap emerges in the above studies as most sought to establish the influence of digitalization on disparate performance indicators, while the present study seeks to address the role of digitalization on international market penetration.

#### **2.4 Summary of the Research Gaps**

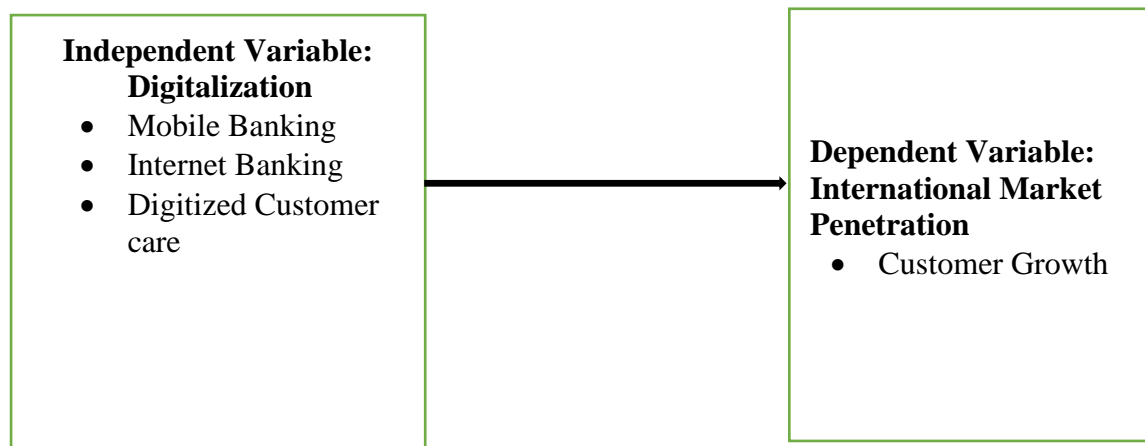
An empirical analysis of literature on the influence digitalization on international market penetration presents mixed findings. Consequently, such findings could be attributed to the different ways the construct of digitalization has been operationalized. Most prior research have focused on the influence of digitalization on performance. Studies have mostly failed to address the relationship between digitalization and international market penetration. Thus, studies on the influence of digitalization on

international market penetration are fragmented and inconclusive because of differences in the operationalization of the variable of digitalization and studies not adopting different types of dependent variables. Prior studies have not examined the role of digitalization on international market penetration. To address the research gaps, this present study did examine the influence of digitalization on international market penetration of Kenyan commercial banks.

## 2.5 Conceptual Model/Framework

This study's conceptual framework (Figure 1) seeks to explore the relationship between the independent variable, digitalization (mobile banking, internet banking and digitized customer care) and the dependent variable, international market penetration (customer growth) of Kenyan commercial banks.

**Figure 2.1: Conceptual Framework of the Research**



**Source:** Researcher (2023)

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1 Introduction**

This chapter covers research design, population of study, sampling method, data collection, data analysis, and ethical considerations.

### **3.2 Research Design**

A cross-sectional descriptive research design was adopted in the study. Since the paper aimed to investigate the impact of digitalization on the international market penetration by Kenyan Commercial Banks, there is a need to collect primary and secondary data about variables over a period of time. Therefore, cross-sectional survey best suits this study as it did enhance data collection about the digitalization and international market penetration over time (Rindfleisch, A., Wierenga, B., & Bell, S., 2018). This research design is cost-effective and allows researchers to collect data from a large population (Li et al., 2018). Furthermore, it provided a more accurate result, enabling the researcher to compare data from different time periods.

Li et al. (2018) successfully used a cross-sectional descriptive research design to assess the relationship between digitalization and financial success of U.S. firms. The researcher used qualitative and quantitative data to collect data from 250 U.S. firms. Similarly, (Rindfleisch et al., 2018) used a cross-sectional design to explore the digitalization of business. The study used qualitative and quantitative data from 250 firms over three years.

### **3.3 Population of the Study**

The unit of analysis was Kenyan Commercial Banks engaged in digital transformation of their operations and services. As per The Bank Supervision Annual Report (2021), there are 39 commercial banks, but only 26 are locally owned. However, the study did only deal with 6 Kenyan Commercial Banks that have been licensed and registered to

conduct business within and outside the county's boundaries. The unit of observations therefore was 6 Kenyan Commercial Banks in Kenya serving in or having subsidiaries in other countries.

The respondents of the study were the 36 executive managers representing group management of the six regional commercial banks. These include; 1 group regional business director, 1 group director technology, 1 group director marketing and communication, 1 group director shared services, 1 group director corporate affairs and 1 group director finance. The 36 executive group management were obtained from each of the 6 commercial banks.

### **3.4 Data Collection**

Primary and secondary data was collected during the study. The primary data was obtained from the questionnaires that were issued to the respondents of the study. These are administered to 36 executive group management directors from the 6 commercial banks. The secondary data collection was collected through data capture forms. The secondary data was gathered from Central bank supervision reports and the annual financial reports of the commercial banks for the year 2022.

### **3.5 Data Analysis**

Quantitative data collected from the questionnaire was analysed using both descriptive and inferential statistical analysis methods. This study used descriptive such as; measures of central tendency, frequency and percentages to summarize and describe the normality of the data. Inferential statistics (multiple regression model and Person moment correlation coefficient) was used to establish the strength and the directions of the variables and the relationship between digitalization and international market penetration.

It allows the researcher to investigate the relationship between variables (Kumari & Yadav, 2018). Pearson moment correlation coefficient was used by the researcher to establish the strength of the association between digitalization (independent variable) and international market penetration (dependent variable). Multiple linear regression was used to establish the direction and the relationship between dependent variable and predictors. Therefore, an application of multiple linear regression to the dependent and independent variables would produce an equation as stated below.

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \epsilon$$

Where:

Y = Dependent variable/construct (International Market Penetration)-Customer Growth

$B_0$  = constant

$\beta_1, \beta_2$  &  $\beta_3$  = regression coefficients

$X_1$  = independent construct (Mobile Banking)

$X_2$  = independent construct (Internet Banking)

$X_3$  = independent construct (Digitized Customer care)

$\epsilon$  = error term



## **CHAPTER FOUR: DATA ANALYSIS, PRESENTATION AND DISCUSSION**

### **4.1. Introduction**

The chapter presents analysis, presentation, and discussions of the findings for the six commercial banks with subsidiaries in the international market. The study sampled 36 group executive staff and all the staff did fill the questionnaire correctly. This represented a 100% response rate. The descriptive and inferential statistics were used to analyse the data. The sections in the chapter are presented as follows; general information, digitalization dimensions (mobile, internet, and digitalized customer care), and relationship between digitalization and international market penetration.

### **4.2. General Information**

The respondents of the study were asked questions on the general information of the commercial banks. These questions included: number of subsidiaries, date founded and country of origin. Responses from the questions, and a review of the commercial bank's annual integrated reports and company registration details provided supporting information that were presented and summarized in Table 4.1.

**Table 4.1 General Information**

<b>Name of the Commercial Bank</b>	<b>Country of Origin</b>	<b>Number of foreign subsidiaries</b>	<b>Year of registration</b>	<b>Number of years in Operation</b>
Kenya Commercial Bank	Kenya	6	1896	117
Group				
Equity Bank Limited	Kenya	5	1984	29
Diamond Trust Bank	Kenya	3	1945	73
NCBA Group PLC	Kenya	3	1959	64
I & M Group PLC	Kenya	4	1974	49
Co-operative Bank	Kenya	1	1968	55

Source: Banks consolidated financial statements (2021-2023), Company registration details (Attorney General).

The information presented in Table 4.1 shows that all the commercial banks countries of origin are Kenya. KCB Group is one of the oldest banks in Kenya with 117 years of operations and six foreign subsidiaries in Tanzania, South Sudan, Rwanda, Uganda, Burundi, and Ethiopia, as evidenced in their KCB Group PLC 2022 annual report (Appendix iv). Equity Bank Limited, a fast-growing bank in Kenya with 29 years of business existence, operates five foreign subsidiaries in Rwanda, Tanzania, Sudan, Uganda, and the Democratic Republic of the Congo. This is evidenced in their Equity-Group-Holdings PLC financial statement of 2022 (Appendix v).

Diamond Trust Bank (DTB) is the second-oldest bank in Kenya, with 73 years of operations. The bank has expanded its operations in three international countries: Tanzania, Uganda, and Burundi, as reported in Diamond Trust Bank of Kenya Limited's 2022 annual report (Appendix vi). On the other hand, NCBA Group PLC, with 64 years of operation, has penetrated three other foreign markets: Rwanda, Uganda, and

Tanzania, as shown in the Investor Relations NCBA Group 2022 annual report (Appendix vii).

Founded in 1974, I & M Group PLC have experienced 49 years of business operations. It has expanded its wings to 4 foreign banks (Tanzania, Rwanda, Uganda, and Mauritius); this is indicated in the I & M annual report and consolidated financial statements 2022 (Appendix viii). Lastly, the Cooperative Bank Limited has 55 years of operations but has not largely ventured into the international market. The bank operates only in one foreign market, which is South Sudan, as shown in their 2022 annual report and accounts with Co-operative Bank (Appendix ix).

### 4.3. Adoption of Digitalization

The study sought to establish the extent to which digitalization has been embraced by the six commercial banks and their subsidiaries in the regional market. The statements covered internet banking, mobile banking, and digitalized customer care. The respondents were provided these statements describing adoption of digitalization that they were required to rate. The rating scale was 5=Strongly Agree, 4=Agree, 3=Neutral, 2=Disagree and 1=Strongly Disagree. The level of agreement on the statements was therefore presented in Table 4.2.

**Table 4.2 Adoption of Digitalization**

<b>Statements</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>
Our organization has adopted digitalization	36	3.5	1.4
Our organization has implemented internet Banking	36	3.8	1.2
Our organization has implemented Mobile Banking	36	3.7	1.3
Our organization has implemented Digitized Customer care	36	3.4	1.6
<b>Composite mean &amp; SD=</b>		<b>3.6</b>	<b>1.4</b>

**Source: Author 2023**

The respondents (Table 4.2) with a mean (SD) of 3.5 (1.4) agreed that their organization has adopted digitalization. Further, the study established that respondents with a mean (SD) of 3.8 (1.2) agreed that the organization has implemented internet banking. Furthermore, findings revealing that respondents with a mean (SD) of 3.7 (1.6) agreed that the organization has implemented mobile banking. Lastly, the study established with a mean (SD) of 3.4 (1.6) that respondents gave neutral response that the organization has implemented digitized customer care. The composite mean (SD) showed agreement that the organization has adopted digitalization in its operations.

The secondary data showed that Kenya Commercial Bank (KCB) Group is a leader in digital financial banking solutions with robust digital banking and innovative digital products. The group has mobile, internet, and customer care banking platforms aimed at increasing revenues and market share. This information is reported from the KCB Group PLC 2022 annual report (Appendix iv). Equity Group Limited, as reported in Equity Group Holdings PLC's 2022 financial statement (Appendix v), instituted digital channels and products to improve financial inclusion among customers. The group utilizes digital online banking to tap more customers in the diaspora and mobile banking. Customers are able to save, deposit, withdraw, and make payments using the digital platforms.

The Diamond Trust Bank has digitalized platforms that are focused on enhancing financial inclusion and the number of transactions. As reported in their Diamond Trust Bank of Kenya Limited 2022 annual report (Appendix vi), the digital products are mobile and internet-aided applications that allow customer self-service operations. On the other hand, NCBA Group introduced digitalized banking to improve its income and banking segments. The Investor Relations NCBA Group 2022 annual report (Appendix

vii) showed that the group uses digital and mobile banking solutions aimed at improving digital lending and non-funded incomes.

I & M Bank Plc's strategic goal was to increase its number of digitalized active customers and transactions, as shown in its I & M annual report and consolidated financial statements for 2022 (Appendix viii). In that regard, the bank introduced digitalized unsecured personal loans using mobile and web platforms to provide their customers with digital lending solutions. On the other hand, the Co-op Bank Limited focused on improving its non-funded income by embracing digitalized platforms and e-credit products. The market segmentation was the diaspora and Omni-Channel customers to utilize the digitalized platforms.

#### **4.4The International Market Penetration.**

The study sought to find out from the respondents the level to which the commercial banks have penetrated international market through digitalization of the various processes. Several statements were provided in which they were required to provide their level of agreement. Rating was based on the following scale; 1=to small extent, 2=to some extent, 3= to moderate extent, 4=to great extent and 5=to very great extent. The findings were summarized in Table 4.3.

**Table 4.3 International Market Penetration**

<b>Statements</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>
The volumes of deposits via Internet Banking have been increasing	36	3.7	1.5
The volumes of deposits via Mobile Banking has been increasing	36	3.6	1.6
There has been an increase in the number of clients served via digitized customer care platforms	36	4.2	1.2

Volumes of loan disbursement via internet banking technology has been increasing	36	3.7	1.3
Volumes of loan disbursement via Mobile banking technology has been increasing	36	3.8	1.5
The volumes of withdrawals via Internet Banking has been increasing	36	3.7	1.3
The volumes of withdrawals via Mobile Banking has been increasing	36	4.1	1.3
Digitized Customer has helped attract more customers	36	3.3	1.5
<b>Composite Mean &amp; SD=</b>		<b>3.7</b>	<b>1.4</b>

**Source: Author 2023**

Table 4.3 shows that respondents with a mean (SD) of 3.7 (1.5) stating that to a great extent has the volumes of deposits via internet banking has been increasing in the international market penetration. Findings showed that respondents with a mean (SD) of 3.6 (1.6) stated that to a great extent has the volumes of deposits via mobile banking has been increasing during the penetration of international market. The findings showed that respondents with a mean (SD) of 4.2 (1.2) stated that to a great extent that there has been an increase in the number of clients served via digitized customer care platforms in the international market penetration. Further showing that respondents with a mean (SD) of 3.7 (1.3) stated that to a great extent has the volumes of loan disbursement via internet banking technology has been increasing due to international market penetration.

Additionally, the study established that respondents with a mean (SD) of 3.8 (1.5) stated that to a great extent has the volumes of loan disbursement via mobile banking technology has been increasing due to market penetration internationally. Furthermore,

the study established that respondents with a mean (SD) of 3.7 (1.3) stated that to a great extent has the volumes of withdrawals via internet banking has been increasing due to international market penetration. Findings revealing that respondents with a mean (SD) of 4.1 (1.3) stated that to a great extent has the volumes of withdrawals via mobile banking has been increasing due to international market penetration. Lastly, the findings showed that respondents with a mean (SD) of 3.7 (1.4) stated that to a great extent has the digitalized customers has helped attract more customers. The composite mean (SD) of 3.7 (1.4) showed that to a great extent has the commercial banks penetrated the international market.

Secondary data shows that Equity Bank Limited controls 26.2% of the mobile banking subscriptions locally and abroad, followed by 14.7% KCB, 19.3% Cooperative Bank, 6.6% I & M Group PLC, and 2.6% NCBA Group PLC, and 3.5% DTB. Similarly, the findings showed that Equity Bank controls 28% of the internet banking subscriptions in the market, followed subsequently by 16.9% KCB, 15.7% cooperative bank, 4.1% I & M Group Plc, and 1.9% DTB. Lastly, on the other digitalized operations that include customer care, the study established that the majority of digitalized operations are conducted at Equity Bank (27.8%), followed subsequently by KCB (11.7%), Cooperative Bank (8.3%), DTB PLC (7.4%), I & M Bank (4.9%), and NCBA Group PLC (4.8%) (Appendices ii-xi).

Additionally, the study found that 61.3% of the mobile banking subscriptions are found in foreign banks, while 38.5% are found in the local market (Kenya). In respect of internet banking, the study found that 60.9% of the subscriptions emanate from foreign markets, while 39.1% originate locally (in Kenya). Lastly, 70.3% of other digitalized

service subscriptions are conducted in foreign banks, while only 29.7% are conducted locally (in Kenya) (Appendices ii-xi).

#### 4.5. Digitalization and International Market Penetration

The study sought to establish from the respondents the extent in which digitalization has contributed to international market penetration. The respondents were provided with statements explaining association between digitalization and international market penetration in which they were expected to rate. Rating was based on the following scale; 1=to small extent, 2=to some extent, 3= to moderate extent, 4=to great extent and 5=to very great extent. Findings to this level of agreement were presented in Table 4.4.

**Table 4.4 Digitalization and International Market Penetration**

<b>Statement</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>
Market share	36	3.3	1.4
Sales Volume	36	3.4	1.5
Growth of customer	36	3.7	1.4
<b>Composite mean &amp; SD=</b>		<b>3.5</b>	<b>1.4</b>

Source: Author 2023

Table 4.4 findings showed that respondents with a mean (SD) of 3.3 (1.4) stated that to a moderate extent has the international market share improved due to digitalization. Further, respondents with a mean (SD) of 3.4 (1.5) stated that to a moderate extent has the sales volume from international market improved due to digitalization. Lastly, respondents with a mean (SD) of 3.7 (1.4) stated that to a great extent has there been a growth of customers due to digitalization in the international market. The composite mean (SD) of 3.5 (1.4) shows that to a great extent has the commercial banks penetrated the international market due to digitalization.



The secondary findings ((Appendix iv–viii) showed that the average customer growth rate in all six commercial banks had grown by 23.2% over the two-year period. Additionally, the average customer growth rate among the foreign subsidiary banks is higher at 36.4% than that of the local bank in Kenya at 17.1%. The customer growth rate at Diamond Trust Bank, at 77.6%, was found to be the highest among the other five financial banks in the region.

#### 4.5.1. Relationship between digitalization and international market penetration

The study sought to establish the significant relationship between digitalization and international market penetration. A Measures of correlation (Pearson) Moment correlation coefficient and multiple regression analysis were used to establish this relationship between the study variables.

#### 4.5.1. Correlation analysis

The Pearson moment correlation coefficient was used by the researcher to establish the type of relationship that exists between digitalization (an independent variable) and international market penetration (a dependent variable). The findings on these were presented in Table 4.5.

**Table 4.5 Correlation analysis**

		<b>Correlations</b>			
		Improved internet banking	Improved mobile banking	Improved digitalized customer care	Growth of customers
Growth of customers	Correlation Coefficient	.869**	.905**	.941**	1.000
	Sig. (2-tailed)	.000	.000	.000	.
	N	36	36	36	36

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

The findings in Table 4.5 showed that a significant positive relationship exists between improved internet banking and growth of customers ( $r=.869$ ,  $p<0.05$ ). Therefore, improved internet banking is associated with improved customer growth in international market. Findings showed a significant positive relationship exists between improved mobile banking and growth of customers ( $r=.905$ ,  $p<0.05$ ). Therefore, improved mobile banking is associated with improved customer growth in international market. Lastly, findings showed that a significant positive relationship exists between improved digitalized customer care and customer growth ( $r=.941$ ,  $p<0.05$ ). Therefore, improved digitalized customer care is associated with improved customer growth in international market.

#### 4.5.2. Multiple Linear Regression Analysis

The assumptions for linear regression analysis including; homoscedacity, assumption of independence of errors, linearity, normality was tested and were not to have been violated in the analysis of the model. Therefore, the model summary describing the relationship between predictors and the dependent variable was shown in Table 4.6.

**Table 4.6 Model Summary**

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.959 <sup>a</sup>	.919	.911	.42617

a. Predictors: (Constant), Improved digitalized customer care, Improved internet banking, Improved mobile banking

b. Dependent Variable: Growth of customers (International market penetration)

Both the independent variables (mobile banking, internet banking, and digitalized customer care) together explain 91.1% of the variance (Adjusted R Square) in

international market penetration (customer growth), which is highly significant, as indicated by the F-value of 120.811,  $p < 0.05$  as shown in Table 4.7.

**Table 4.7 ANOVA**

**ANOVA<sup>a</sup>**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	65.827	3	21.942	120.811	.000 <sup>b</sup>
	Residual	5.812	32	.182		
	Total	71.639	35			

a. Dependent Variable: International market penetration Growth of customers

b. Predictors: (Constant), Improved digitalized customer care, Improved internet banking, Improved mobile banking)

An examination of the t-values indicates (Table 4.8) that digitalization contributes to the prediction of international market penetration among the commercial banks.

**Table 4.8 Coefficients**

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.013	.265		.051	.960
	Improved internet banking	.290	.144	.234	2.011	.033
	Improved mobile banking	.531	.189	.497	2.811	.008
	Improved digitalized customer care	.232	.142	.254	1.630	.013

a. Dependent Variable: International Market Penetration (Growth of customers)

Table 4.8 shows that mobile banking contributes to 53.1% unit of international market penetration. Additionally, internet banking contributes to 29% unit of international market penetration and also, digitalized customer care contributes to 23.2% unit of

international market penetration. Multiple linear regression model summary of the relationship between digitalization and international market penetration is follows

$$. Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \varepsilon$$

$$Y = 0.013 + 0.531X_1 + 0.290X_2 + 0.232X_3 + 0.265$$

#### **4.6. Discussion**

The findings obtained in the study directly concur with the theories that underlie the current study. The Diffusion of Innovation Theory (DIT) postulates that services, products, or ideas gradually gain popularity and use in a specific market segment. This was witnessed in the findings, where mobile and internet banking are gaining popularity, as witnessed by the growing number of subscriptions in the foreign international banking markets. Descriptive findings from the respondents showing agreeing that digitalization have increased the international market penetration with a higher number of customers. Additionally, the lesson for organizations is that they should perceive a service innovation such as digitalization as new and diffuse it in their operations if it helps to address some unique market needs.

The findings further concur with the Uppsala Internationalization Process Model, which posits that a firm should first strongly establish its operations and again take a fair share of the domestic market before committing its resources to foreign markets gradually, from one step to another. From the secondary findings, many of the financial banks had sufficient experience in the local market (Kenya) before venturing to the foreign markets. The local banks form a bigger foundation for the other foreign banks, as shown by the various financial investments made. The Uppsala Internationalization Process Model emphasizes that firms should first have in-depth knowledge of the local market and succeeds before thinking of internationalization.

The study established from the respondents that there has been improved internet banking, mobile banking and digitalized customer care. The secondary findings showed that the majority of mobile and internet subscriptions are found in foreign banks. This finding concurs with a study conducted by Onyango and Ondiek (2021) on the influence of digitalization on the integration of sustainable development goals, which found that many of the mobile and internet banking functions emanate from international banking institutions and subsidiaries. The study further found that a positive association exists between digitalization and international market penetration. These findings are justified by a study conducted by Chindudzi *et al.* (2020) on the influence of digital banking on commercial banks' performance in Zimbabwe established that it positively and significantly performs through increased online customer deposits and banking transactions in foreign countries.

The study found that the customer growth had grown according to the respondents. Similarly, the secondary indicating that customer growth had grown in the international market. Onyango & Ondiek's (2021) agree with the finding by opining that commercial banks have continued to grow steadily over the years, attributed to customer awareness and marketing strategies among the bank management. Additionally, the average customer growth rate among the foreign subsidiary banks is higher at 36.4% than that of the local bank. This concurs with findings by Potapova *et al.* (2022), who postulate that many local banks have gone international to venture into new markets.

The study established that a strong positive relationship exists between predictors (mobile, internet banking and digitalized customer care) and international market penetration. Additionally, the study found that these predictors contribute to international market penetration. Although some of the reviewed studies provided some resemblance in their findings, the study was able to fill the gaps. A study by Otieno and

Ndede (2020) established that there is a positive relationship between the adoption of digital banking and the market performance of Kenyan commercial banks. Likewise, to prove to some extent the findings of the current study, Kinyanjui (2020) investigated the relationship between the digital transformation process and customer relationship management amongst commercial banks in Kenya and found a positive relationship between the study variables. Both the independent variables (mobile banking, internet banking, and digitalized customer care) together explain a higher variance in international market penetration, which was found to be highly significant.

## **CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMEDATIONS**

### **5.1. Introduction**

The key findings of the study are summarized in this chapter, along with conclusions that are guided by the objectives. The section further outlines insightful recommendations that inform decision-making and operations. Finally, the chapter outlines suggestions that future researchers can adopt based on the limitations that the current study faces.

### **5.2. Summary of the Findings**

The findings of the study on digitalization revealed that commercial banks have adopted digitalization. Commercial banks have implemented internet and mobile banking. They commercial banks are using digitalized customer care on average. Generally, the organization has adopted digitalization in their operations. With some of the digitalized offerings being offered by these commercial banks include digital online banking, internet-aided applications, digitalized unsecured personal loans, mobile and web platforms, and e-credit products. It was established that mobile and internet banking subscriptions have a large portion of performance emanate from foreign markets. In a similar manner, numerous digitalized customer care service subscriptions and operations come from foreign market segments.

Findings on the extent to which the commercial banks have penetrated the international market findings revealed that volumes of deposits via internet banking, and mobile banking have been increasing over the years. Similarly, the study established that there has been an increase volume of loan disbursement via internet and mobile banking technology. Furthermore, volumes of withdrawals via internet and mobile banking have as well increased. Further, it was established that digitalization has helped attract

more customers. Generally, the findings revealed that commercial banks have penetrated the international market. This supports that the average customer growth rate among the foreign subsidiary banks was found to be higher at 36.4% than that of the local banks.

The findings on digitalization and international market penetration revealed a strong positive relationship association existing between digitalization (mobile and internet banking, digitalized customer care) with international market penetration. Additionally, both the independent variables (mobile banking, internet banking, and digitalized customer care) together explain 91.1% of the variance (Adjusted R Square) in international market penetration.

### **5.3. Conclusion**

Several studies have provided findings on digitalization and other variables, including customer relationship management, market performance, and financial performance. The current study differs by linking digitalization and international market penetration. Digitalization was found to have a positive significant influence on international market penetration. Significantly, a strong positive strong relationship was found to exist between the study variables. Additionally, mobile and internet banking and digitalized customer care were found to predict international market penetration contributing to customer growth rate. Correspondingly, many of the foreign banks have been progressing positively with the number of digitalized services, which means that they have been able to penetration the international market.

The study has been able to fill the gaps in the literature by explaining the extent to which digitalization has led to international market penetration among commercial banks. Commercial banks that intend to increase customer growth have embraced internet, mobile banking and digitalized customer care in their provision of products



and services. Since the digitalization of banking operations is predominant and most preferred, market penetration in foreign markets has been improving significantly every year.

#### **5.4. Recommendations**

The study recommends to managers, policymakers, and academic institutions based on its insightful findings. The banking sector is faced with intense competition and extreme risks emanating from the external environment. Therefore, they need to strategically position themselves by tapping the benefits that would accrue by offering their products and services through digitalized platforms. Since the populations in many African countries are embracing technology and ICT, the financial institutions should develop marketing strategies to suit this market segment.

The level of customer awareness and preference has become a headache for many businesses. Commercial banks are not exceptions to this; they need to understand the needs and preferences of their customers. The current customer requires comfort and convenience in the services and products they receive. Therefore, commercial banks need to utilize digitalized products and services because they offer customers the required convenience and comfort. The digitalization of products and services is a strategic tool that marketing management and authorities can utilize to penetrate new markets locally and internationally.

The digitalization of products and services should be viewed by commercial banks as a way of increasing the portfolio of products on the market. Digitalization enables a range of products or services to be offered to the customer. These include receiving credits, paying bills, making purchases, transferring funds, and saving. Adoption of digitalized processes should be a priority for banking management or organizations to increase their non-funded incomes or revenue streams.

### **5.5. Limitations of the Study**

Gaps are presented in the current study due to limitations brought about by the use of concepts, methods, and different contextual grounds. The researcher ensured that these limitations were addressed to avoid their negative effect on the results of the study. On the conceptual gap, the study only focused on a few digitalization services without comprehensively mentioning other operations that utilize technology, such as automatic teller machines and agency banking. Additionally, customer growth was only used as an indicator for measuring international market penetration. There are other indicators such as market share, number of channels, and sales turnover.

On the methodology gap, the study utilized a cross-sectional descriptive research design where secondary data from specified units of observations were utilized. There are numerous research designs that can be utilized. Furthermore, on the contextual gap, the study purposefully selected commercial banks with foreign subsidiaries; this was a bias in the methodology by the researcher.

### **5.6. Suggestion for further studies**

The study proposes that future studies be conducted to include other technological aspects, such as agency banking and ATM usage. More indicators that are used to measure international market penetration should be used to obtain a wider perspective on the findings. Without any bias, all commercials with or without foreign subsidiaries should be sampled to understand the in-depth analysis of the variables of the study this would aid to make a comparative analysis.

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## Appendix 1: A list of licensed Kenyan Commercial Banks

No.	List of Kenyan Commercial Banks
Local Public Commercial Banks	
1	Kenya Commercial Bank (KCB)
2	National Bank of Kenya
Local Private Commercial Bank	
3	African Banking Corporation Ltd.
4	Jamii Bora Bank Ltd.
5	Commercial Bank of Africa Ltd.
6	Co-operative Bank of Kenya Ltd.
7	Credit Bank Ltd.
8	Charterhouse Bank Ltd.
9	Chase Bank (K) Ltd
10	Dubai Bank Kenya Ltd
11	Equatorial Commercial Bank Ltd.
12	Equity Bank Ltd
13	Family Bank Ltd
14	Fidelity Commercial Bank Ltd.
15	Guaranty Trust Bank Formely Fina Bank Ltd.
16	Giro Commercial Bank Ltd
17	Guardian Bank Ltd
18	Imperial Bank Ltd
19	Investment & Mortgages Bank Ltd.
20	Middle East Bank (K) Ltd
21	NIC Bank Ltd.
22	Oriental Commercial Bank Ltd.
23	Paramount Universal Bank Ltd.
24	Prime Bank Ltd
25	Trans-National Bank Ltd.
26	Victoria Commercial Bank Ltd

Adapted from <https://www.centralbank.go.ke/wp-content/uploads/2022/04/Directory-of-Licensed-Commercial-Banks-Mortgage-Finance-Institutions-NOHCs-Aprill-2022.pdf>. Copyright 2022 by Central Bank of Kenya.

## Appendix 2: Branches of Kenyan Banks Subsidiaries in the Region

Country Presence	KCB Group Plc	Equity Group Holdings Plc	Diamond Trust Bank Group	NCBA Group Plc	I&M Holdings Plc	Guaranty Trust Bank	Co-operative Bank	ABC Bank	Total
Tanzania	14	14	28	12	8	-	-	-	76
Uganda	13	43	35	4	13	8	-	3	119
Rwanda	150	16	-	3	14	14	-	-	197
Burundi	6	-	4	-	-	-	-	-	10
South Sudan	13	5	-	-	-	-	4	-	22
Democratic Republic of Congo		70	-	-	-	-	-	-	70
<b>Total 2021</b>	<b>196</b>	<b>148</b>	<b>67</b>	<b>19</b>	<b>35</b>	<b>22</b>	<b>4</b>	<b>3</b>	<b>494</b>
<b>Total 2020</b>	<b>58</b>	<b>146</b>	<b>68</b>	<b>20</b>	<b>22</b>	<b>22</b>	<b>4</b>	<b>3</b>	<b>343</b>

Adapted from <https://www.centralbank.go.ke/wp-content/uploads/2022/04/Directory-of-Licensed-Commercial-Banks-Mortgage-Finance-Institutions-NOHCs-April-2022.pdf>. Copyright 2022 by Central Bank of Kenya.



## Appendix 3: Questionnaire

### Quantitative

#### A. Demographic Profile

- i. Name of Bank.....
- ii. Country of Origin.....
- iii. Date Founded.....
- iv. Number of subsidiaries in foreign markets.....

#### B. Digitalization

##### i. Adoption of Digitalization by the Commercial Bank

Below are some questions. Kindly tick as appropriate to indicate the extent to which agree with the following statements

Measuring Scale

<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

	<b>Areas</b>	1	2	3	4	5
1	Our organization has adopted digitalization					
2	Our organization has implemented internet Banking					
3	Our organization has implemented Mobile Banking					
4	Our organization has implemented Digitized Customer care					

**C. The International Market Penetration.**

**ii. Impact of digitalization on the organization**

Kindly tick as appropriate to indicate the extent to which agree with the following statements

**Measuring Scale**

<b>To small extent</b>	<b>To some extent</b>	<b>To moderate extent</b>	<b>To great extent</b>	<b>To very great extent</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

	<b>Areas</b>	1	2	3	4	5
1	The volumes of deposits via Internet Banking has been increasing					
2	The volumes of deposits via Mobile Banking has been increasing					
3	There has been an increase in the number of clients served via digitized customer care platforms					
4.	Volumes of loan disbursement via internet banking technology has been increasing					
5	Volumes of loan disbursement via Mobile banking technology has been increasing					
6	The volumes of withdrawals via Internet Banking has been increasing					
7	The volumes of withdrawals via Mobile Banking has been increasing					
8	Digitized Customer has helped attract more customers					

**iii. Digitalization and Market Penetration**

**Measuring Scale**

<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>
--------------------------	-----------------	----------------	--------------	-----------------------

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
----------	----------	----------	----------	----------

**In your opinion, to what extent has digitalization led to the following**

<b>Areas</b>	1	2	3	4	5
Market Share					
Sales Volume					
Growth of Customer Base					

## Appendix iv: Data capture form

### D. General Information

- v. Name of Bank.....
- vi. Country of Origin.....
- vii. Date Founded.....
- viii. Number of subsidiaries in foreign markets.....

### E. Digitalization

#### iv. Adoption of Digitalization by the Commercial Bank

- 1. Availability of internet banking.....
- 2. Demographics (Age, gender) using digitalized banking platform.....
- 3. Internet banking and number of subscribers

Years	2020	2021	2022
Customers subscribed to internet banking			

- 4. Services or products offered by the commercial bank via internet.....
- 5. Availability of mobile banking.....
- 6. Mobile banking and number of subscribers

Years	2020	2021	2022
Customers subscribed to mobile banking			

- 7. Services or products offered by the commercial bank via mobile.....
- 8. Availability of Digitized Customer care .....
- 9. Customers using Digitalized customer care

Years	2020	2021	2022
Customer contacted using digitalized customer care			

10. Services or products offered through digitalized customer care.....

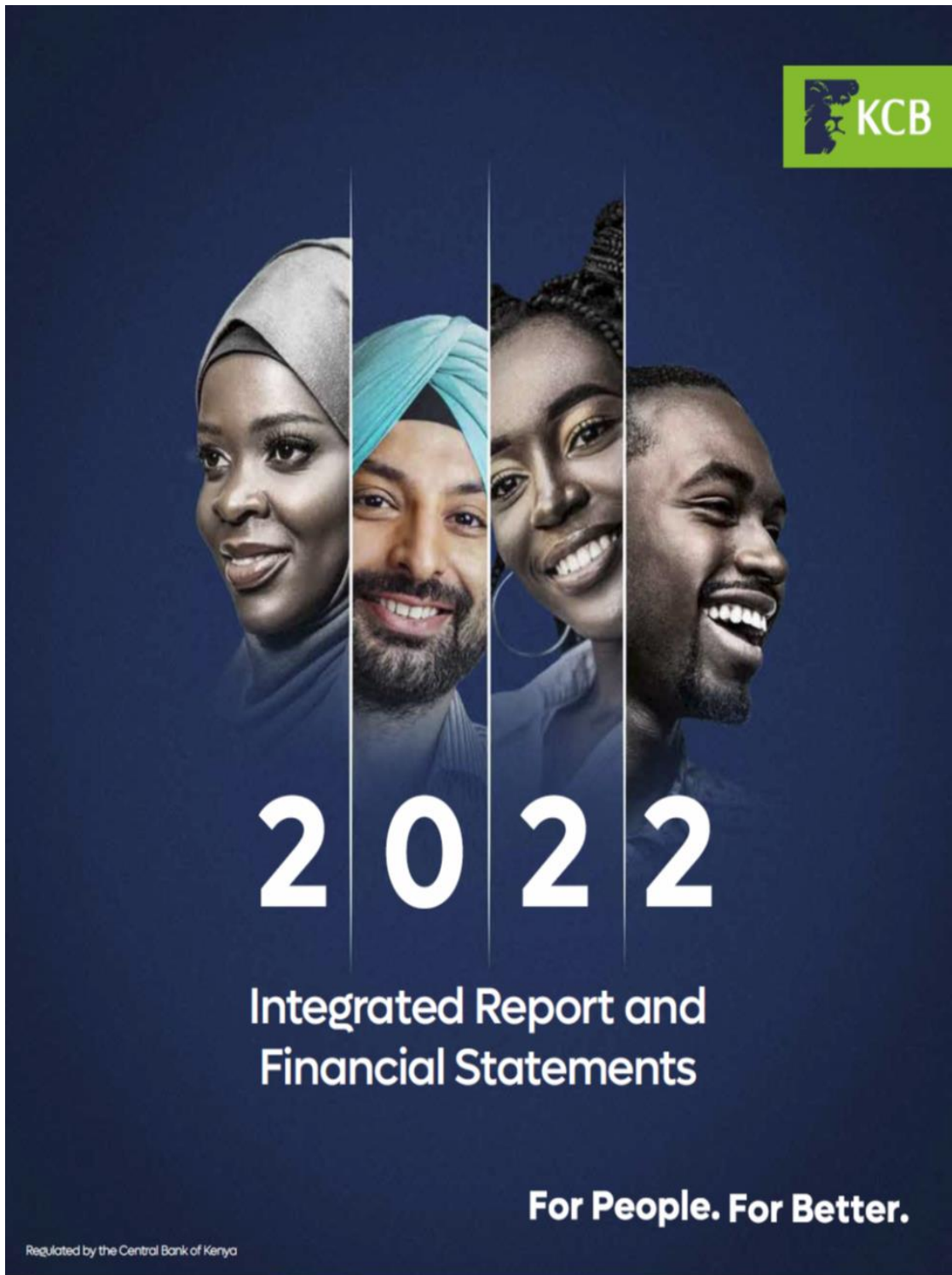
**F. The International Market Penetration.**

11. Foreign market subsidiaries under digital banking.....

12. General Customer growth rates

Years	2020	2021	2022
Customer growth using digital platforms			

## Appendix v: KCB Annual Financial Report 2022



Source: <https://kcbgroup.com/wp-content/uploads/2023/05/KCB-Group-Plc-2022-Integrated-Report-and-Financial-Statements.pdf>

## Appendix vi: Equity Bank Limited Annual Financial Report 2022



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Source: <https://equitygroupholdings.com/wp-content/uploads/2023/06/Equity-Group-Holdings-PLC-2022-Integrated-Report-and-Financial-Statements.pdf>

Appendix vii: DTB Annual Financial Report 2022



Source:

[https://dtbk.dtbafrika.com/sites/default/files/downloads/2022\\_Integrated\\_report.pdf](https://dtbk.dtbafrika.com/sites/default/files/downloads/2022_Integrated_report.pdf)



## Appendix viii: NCBA Bank Annual Financial Report 2022



**NCBA**

GROUP PLC

ANNUAL REPORT AND FINANCIAL STATEMENTS

FOR THE YEAR ENDED  
31 DECEMBER 2022

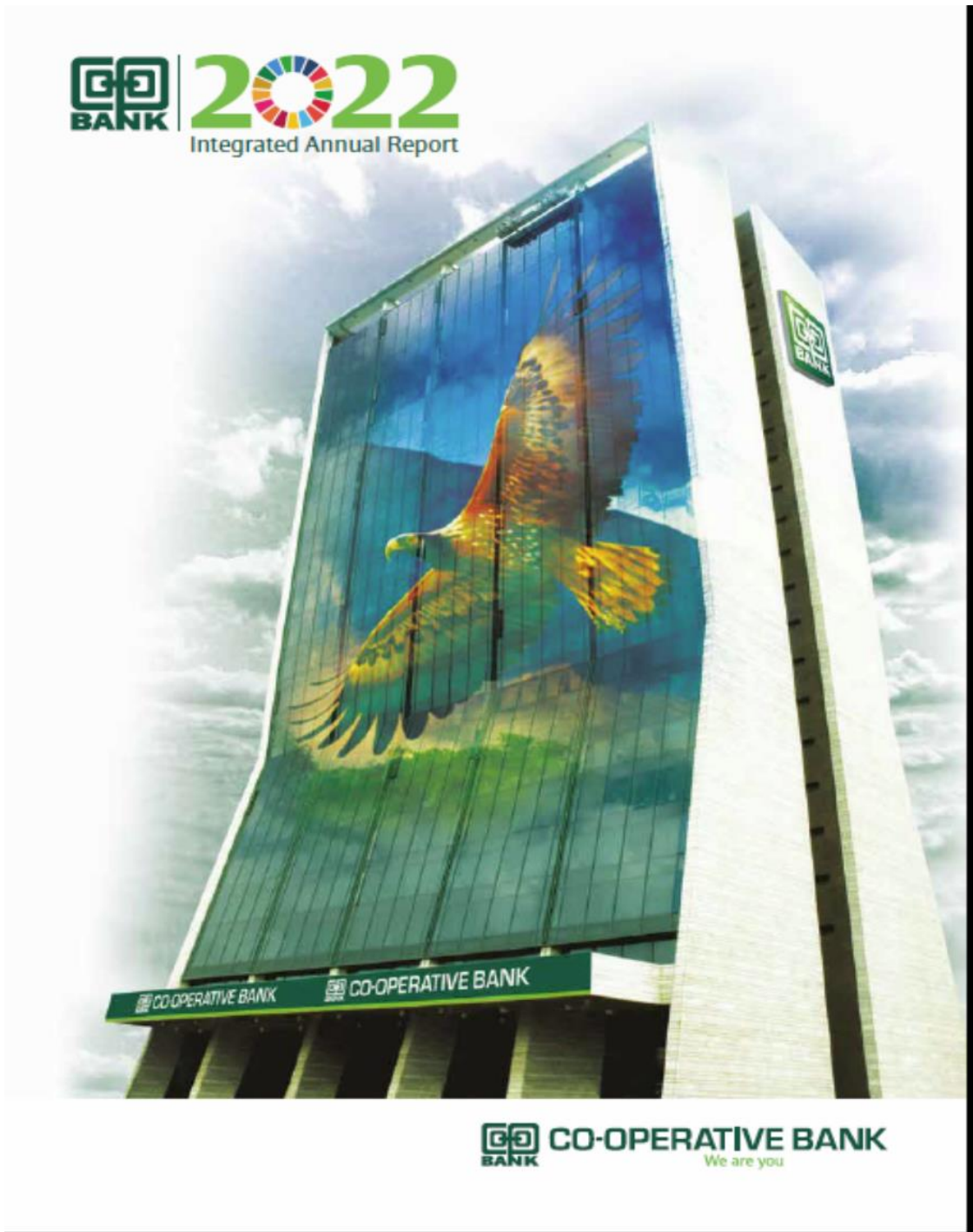
Source: <https://ncbagroup.com/wp-content/uploads/2023/04/NCBA-Group-PLc-Signed-2022-FS.pdf>

Appendix ix: I & M Bank Annual Financial Report 2022



Source: <https://www.imbankgroup.com/ke/wp-content/uploads/sites/2/2023/08/IM-Annual-Report-2023-V005.pdf>

## Appendix x: COOP Bank Annual Financial Report 2022



<file:///C:/Users/HND/Downloads/CO-OP-BANK-2022-Integrated-Report.pdf>

## Appendix xi: Digitalized Banking Subscriptions 2020/2021/2022

BANK NAME/SUBSIDIARIES	NUMBER OF DIGITALIZED SUBSCRIPTIONS 2020/2021/2022 ('000')								
	MOBILE BANKING			INTERNET BANKING			OTHER DIGITAL OPERATIONS		
	2020	2021	2022	2020	2021	2022	2020	2021	2022
<b>A. KENYA COMMERCIAL BANK</b>									
KENYA	1256.1	1268.66	1294.034	894.1	983.51	1081.861	12.8	14.08	15.488
SUDAN	67.2	67.872	69.22944	41.2	42.024	42.86448	6	7.2	7.92
RWANDA	102	112.2	134.64	98.1	107.91	118.701	43.1	43.531	43.96631
BURUNDI	47.3	47.773	48.72846	33.8	30.42	31.0284	8.2	8.282	8.36482
UGANDA	124.11	125.351	140.9	98.2	104.8	110.04	11.3	11.526	11.36
ETHIOPIA	89.7	90.597	91.50297	56.2	76.51	77.08	11.32	11.67	12.41
<b>TOTAL</b>	<b>1686.41</b>	<b>1712.45</b>	<b>1779.035</b>	<b>1221.6</b>	<b>1345.17</b>	<b>1461.575</b>	<b>92.72</b>	<b>96.289</b>	<b>99.50913</b>
<b>B. EQUITY BANK LIMITED</b>									
KENYA	1566.2	1581.86	1597.681	1231.01	1243.32	1255.63	145.5	146.955	148.41
RWANDA	234.1	236.441	242.34	188.1	189.981	191.862	6.1	6.161	6.405
TANZANIA	189.4	191.294	193.051	102.3	103.323	104.346	15.2	15.352	18.24
SUDAN	95.34	96.2934	115.5521	34.5	34.845	35.19	4.4	4.84	4.488
UGANDA	451	455.51	478.06	236.1	238.461	240.822	21.5	23.65	25.8
DRC	45.1	46.002	46.002	34.5	34.845	35.19	4.3	4.386	4.386
<b>TOTAL</b>	<b>2581.14</b>	<b>2607.4</b>	<b>2672.686</b>	<b>1826.51</b>	<b>1844.78</b>	<b>1863.04</b>	<b>197</b>	<b>201.344</b>	<b>207.729</b>
<b>C. DIAMOND TRUST BANK</b>									
KENYA	102.2	103.222	104.244	56.3	57.426	57.426	26	26.26	26.52
TANZANIA	45.01	45.4601	45.9102	11.1	11.322	11.433	5.1	5.151	5.202
UGANDA	67.1	73.81	87.23	15.4	15.708	16.94	4.5	4.545	4.59
BURUNDI	34.2	34.542	34.884	7.4	7.548	7.474	2.8	2.828	2.856
<b>TOTAL</b>	<b>248.51</b>	<b>257.034</b>	<b>272.2682</b>	<b>90.2</b>	<b>92.004</b>	<b>93.273</b>	<b>38.4</b>	<b>38.784</b>	<b>39.168</b>
<b>D. NCBA Bank</b>									
KENYA	65.3	71.83	78.36	32.2	32.522	32.844	12	12.12	12.24
RWANDA	23.2	27.84	30.624	16.3	16.463	16.626	5.1	5.151	5.202
UGANDA	33.6	40.32	41.5296	20.2	20.402	20.604	3.4	3.434	3.468
TANZANIA	45	45.9	47.277	22.1	22.321	22.542	2.6	2.626	2.652
<b>TOTAL</b>	<b>167.1</b>	<b>185.89</b>	<b>197.7906</b>	<b>90.8</b>	<b>91.708</b>	<b>92.616</b>	<b>23.1</b>	<b>23.331</b>	<b>23.562</b>
<b>E. I &amp; M BANKING GROUP</b>									
KENYA	256	261.12	307.2	103	104.03	105.06	10.3	10.403	10.506
TANZANIA	37.3	38.419	41.03	23.4	23.634	23.868	5.1	5.151	5.202
RWANDA	56.2	56.762	62.43	17.5	17.675	18.008	2.2	2.222	2.266
UGANDA	66.1	67.422	72.71	31.2	31.512	32.142	3.4	3.434	3.468
MAURITIUS	15.7	15.857	17.27	10.2	10.302	10.508	1.5	1.515	1.53
<b>TOTAL</b>	<b>431.3</b>	<b>439.58</b>	<b>500.64</b>	<b>185.3</b>	<b>187.153</b>	<b>189.6</b>	<b>22.5</b>	<b>22.725</b>	<b>22.972</b>
<b>F. CO-OP BANK PLC</b>									
KENYA	1231.1	1243.41	1255.722	675	681.75	688.5	34	34.34	35.066
SOUTH SUDAN	6.3	6.363	6.426	5.3	5.353	5.406	2.1	2.121	2.142
<b>TOTAL</b>	<b>1237.4</b>	<b>1249.77</b>	<b>1262.148</b>	<b>680.3</b>	<b>687.103</b>	<b>693.906</b>	<b>36.1</b>	<b>36.461</b>	<b>37.208</b>

## Appendix xii: Customer Growth 2021/2022

BANK NAME/SUBSIDIARIES	CUSTOMER GROWTH RATES YEAR 2021/2022	
	2021	2022
<b>A. KENYA COMMERCIAL BANK</b>		
KENYA	14 56940	15474954
SUDAN	189644	205565
RWANDA	790269	845955
BURUNDI	450437	737170
UGANDA	1,200,450	1345385
ETHIOPIA	8504700	8958555
<b>TOTAL</b>	<b>25,704,900</b>	<b>27,567,584</b>
<b>B. EQUITY BANK LIMITED</b>		
KENYA	11965088	12286124
RWANDA	1341275	1789881
TANZANIA	482981	575862
SUDAN	916325	1085449
UGANDA	1236059	1742952
DRC	171912	180578
<b>TOTAL</b>	<b>16113640</b>	<b>17660846</b>
<b>C. DIAMOND TRUST BANK</b>		
KENYA	223456	365434
TANZANIA	159603	354674
UGANDA	55323	153675
BURUNDI	55323	3207
<b>TOTAL</b>	<b>493705</b>	<b>876990</b>
<b>D. NCBA Bank</b>		
KENYA	855795	944655
RWANDA	156300	175395
UGANDA	254955	310565
TANZANIA	85750	97527
<b>TOTAL</b>	<b>1352800</b>	<b>1528142</b>
<b>E. I &amp; M BANKING GROUP</b>		
KENYA	1458655	1498745
TANZANIA	358405	367211
RWANDA	578459	623546
UGANDA	754905	965455
MAURITIUS	345256	515315
<b>TOTAL</b>	<b>3495680</b>	<b>3970272</b>
<b>F. CO-OP BANK PLC</b>		
KENYA	7868560	9156504
SOUTH SUDAN	453056	689346
<b>TOTAL</b>	<b>8321616</b>	<b>9845850</b>