INFLUENCE OF INFORMATION AND COMMUNICATION TECHNOLOGY INTEGRATION IN GROWTH OF COMMERCIAL BANKS IN KENYA: A CASE OF KENYA COMMERCIAL BANK KENYA LIMITED

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DECLARATION

This research project report is my own original work and has never been submitted for a degree award in any university.

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This research project has been submitted for examination with my approval as a university supervisor.`a

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DR. NAOMI GIKONYO , LECTURER ,UNIVERSITY OF NAIROBI DATE

DEDICATION

I dedicate this work to my wife Esther Wanjiru Njuguna Shiroya and daughter Alexis Cheptoo Shiroya for their perseverance during my long hours of absence because of my study.

I also dedicate this work to my parents Rufus Weshibingha Shiroya and Mary Tecla Shiroya for the foundation they gave me and the many sacrifices they made to ensure I got a decent education.

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ABSTRACT

Information,communication and technology (ICT) has revolutionized how commercial banks operate by changing and simplifying cumbersome bank processes to the benefit of the shareholders and customers. A proportion of commercial banks have however not embraced ICT and have therefore not been able to compete effectively in the financial arena. This study examined the influence of ICT integration on the growth of commercial banks in Kenya with a hope that it would encourage other players to see the benefits of ICT integration.The objectives of the study were to determine how digital marketing influences growth of commercial banks, to assess how mobile banking influences growth of commercial banks , to establish the extent to which internet banking influences growth of commercial banks and to examine how customer centric technology influences growth of commercial banks. The study brought out how various ICT indicators employed by Kenya Commercial Bank have influenced growth of commercial banks. The study findings will be of great significance to the bank management, project leaders and industry as a whole facilitating them in coming up with long term solutions while underscoring the need to digitalize. Stratified random sampling technique was used to select bank managers from KCB Bank Kenya Head Office and three selected branches within Nairobi region. The target population was 251 managers that yielded a sample size of 50 managers using theory on sampling procedure that recommends that a representative sample should be between 10% and 30%. Descriptive survey research design was employed and structured questionnaires were used as the main method of data collection. Quantitative and qualitative data was obtained from 41 managers. The data was analyzed in percentages and presented using tables. The study found out that ICT has been integrated by commercial banks through; Digital marketing, Internet Banking, Mobile banking and customer centric .The study recommended that banks should ensure cyber security as they integrate ICT in its operation. Further studies on ICT integration on Microfinance institution should be carried out.

ABBREVIATIONS AND ACRONYMS

ATM:	Automated Teller Machine
CBK:	Central Bank of Kenya
DOI:	Diffusion of Innovation Theory
GDP:	Gross Domestic Product
ICT:	Information Communication Technology
KBA:	Kenya Bankers Association
KCB	Kenya Commercial Bank
OBA:	Online Behavioral Advertising

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Major breakthroughs such as the use of PC and its ability to email; to quicken business processes by computerizing some of the business processes have led to increased workflow that is largely effective and efficient (Lawlor, 2007). Today the availability of digital user generated documents has affected the traditional customer shopping behavior, consumers today are embracing new communication channels giving them an opportunity to shop and talk about their shopping experience (Essenstam, 2016). ICT has been widely integrated in a number of business functions from production to marketing and point of sale. This has been made possible due to the fact that businesses have now realized the positive impact of ICT on its operation. From gaining competitive advantage to driving efficiency and enhancing customer experience, businesses achieve maximum profits and growth through adopting ICT (Polasik and Wisniewski (2008) in their study Empirical analysis of internet banking adoption in Poland point out that considering the nature of banking industry operations and services, the banking sector is relatively amenable to innovative technologies.Aliyu and Tasmin, 2012).

In their study of An ICT framework for enabling rural banking in India, Satchidananda and Khanolkar (2006) found that ICT based solution was necessary and recommended an establishment of a data center that ensured a two way connectivity to mobile multi service delivery system that provided mobile banking platform as well as connectivity to all banks concerned.

According to (Luka and Ibinkule, 2012) in their study on The Impacts of ICT`s on Banks: A case of the Nigerian Banking Industry, banking industry is considered as the mortar of every robust economy and with advancement in technology banks are in the frontline when it comes to integrating ICT in its day to day functions. They also add that ICT has helped strengthen banks competitive position in the rapidly changing and emerging economies. To them, the growth of any enterprise is tied to retaining loyal customers, improving productivity, cutting costs, increasing market share and providing a timely response and that ICT is a major enabler for dealing with these issues.

New infrastructures in the world economy have been created through ICT thus making the world economy to be truly global, this has also given banks that use the new technology a competitive advantage over their rivals that have not fully integrated ICT in their functions. This integration has led to increased customer satisfaction and customer service delivery, enhanced speed in service delivery, accurate banking and accounting software and enhanced cyber security (Aliyu and Tasmin, 2012). Also worth noting is that banks have adopted information communication technology so as to improve the efficiency and effectiveness of the services they offer to their customers. ICT also improves banks business processes as well as enhances managerial decision making and workgroup collaborations. Banking sector has been radically affected by information technology developments in the banking industry. Saied Khajeh (2011), notes that information technology is a critical business resource because its absence may result to poor decisions which could lead to business failure. Information technology plays a very central role in the operation of banking industry since its application covers almost all departments in the organizational structure. Saied Khajeh adds that ICT opened up new markets, new products, new services and efficient delivery channels for the banking industry. He gives examples such as online banking, mobile banking and internet banking.

Kenya has witnessed great strides in mobile telecommunication and the same comparison can be seen in the banking industry. According to Mattos (1999 the frequent problems observed while using bank services are; long lines, limited time for customer service, transaction error due to the banks personnel and excessive bureaucracy. Today we have seen an end to spiraling queues in the banking hall during holidays when customers are preparing to spend big, school opening days when parents are rushing to pay fees and end months when salaries are just paid. The reduction in queues can be attributed to electronic queue management system where a customer picks a ticket number from the automatic dispensing machine and takes a seat waiting for his ticket number to be called. Most banks have aggressively pursued a policy of decongesting their banking halls by giving their customers alternative options like mobile and internet banking (Sheikh et al., 2013).

1.1.1 Commercial Banks in Kenya

The banking sector in Kenya is comprised of 43 commercial banks, two mortgage finance companies, 130 foreign exchange bureaus and 15 micro finance institutions

(CBK, 2012). The companies Act, the CBK Act cap 491, the Banking Act cap 488, and Microfinance Act 2006 are the main regulators and governors of the banking industry in Kenya. The Acts are used along with prudential guidelines which are issued by the CBK. In 1995 the exchange controls were lifted after liberalization of the banking industry in Kenya. The banks have come together under the Kenya Bankers Association (KBA), which serves as an umbrella body that lobbies for the banking sector's interests and as a forum to address issues affecting members. The main challenges facing the banking industry in Kenya include: Global financial crisis that led to reduction in deposits, trade volumes and performance of assets, declining interest margins, brought about by CBK's monetary Policy, interventions and new regulation especially with the passing of 2010 constitution. For instance, smaller banks would face the challenge of increasing the minimum core capital to Kshs.1Billion by end of 2012 as regulated by the finance Act 2008.

It is important to note that in recent times the banking industry in Kenya has faced tremendous challenges that have tested the public confidence in the financial institutions. Two commercial banks namely Dubai Bank and Imperial Bank underwent closure while a third one Chase Bank was placed under receivership by CBK .This drastic action by the regulator was necessitated following the discovery of gross financial impropriety and shadow book keeping in disregard to the shareholders (Osebe and Chepkemoi, 2016).

The cut throat competition in the banking sector coupled with the reduced government borrowing from the industry has affected the performance of commercial banks in Kenya. The operating environment for the industry keeps on evolving due to both local and global trends. To therefore remain above board amid tight regulations, competition and increased sustainable surveillance, banking industry has embraced technology as a lever to sustainable performance. The motivation for technology adoption within the industry is also enhanced with the view of circumventing the tight regulation that has been imposed by the regulator.

On 24th August 2016 the President of the Republic of Kenya, Uhuru Kenyatta signed into law a bill on the Banking Amendment Act of 2015.This bill had been put forward and passed by the National Assembly on 28th July 2016 with the intention to regulate the so called run-away interest rates that are applicable to bank loans and deposits, capping the interest rates that banks can charge on loans and must pay on deposits.

The passage of this law on the banking industry by and large meant that commercial banks may as a result be affected in the following ways; probable downsizing and rationalization of staff numbers, adjustment in the funding profile with particular interest to risky borrowers, competition amongst banks that would narrow down to customer service delivery, efficient bank performance with a critical look at the various redundant bank processes and ultimately greater innovation and diversification of products in an attempt to attract a larger customer base.

Because of the new law where a level playing field in terms of interest rates has been enforced by the government on the financial institutions, commercial banks in Kenya now more than ever will have to leverage more on ICT integration and technology to stay relevant and competitive.

The Kenyan commercial banks that invest heavily in ICT technology and are ready and willing to acquire the latest, convenient, customer friendly packages will have an advantage over their peers. This in turn will definitely make them stay ahead of the pack in terms of customer service, customer acquisition and retention and ultimately huge profits to the benefit of its shareholders.

1.2 Statement of the problem

Commercial banks in Kenya have been registering tremendous profits in the recent past. A close scrutiny of the top tier banks have revealed that a key ingredient in their good performance may be attributed to extensive use of ICT. There has been a raging debate as to whether or not ICT integration influences the growth of commercial banks. The problem is that some commercial banks in Kenya have not fully embraced the use of ICT in their processes because of various reasons and this gives motivation to study how ICT influences growth of commercial banks in Kenya with a hope that it will fill the knowledge gap in the area.

Increasing competitiveness in the global economy requires that companies adopt and redesign their operation processes for efficiency and effectiveness. In this growing global competition the ability to innovate and implement those innovations proves to be the cutting edge in achieving a competitive advantage over others. According to

Sarvi and Pillay (2015) an early adoption of ICT can allow countries to leapfrog over from the traditional development pathway into production of knowledge-based products and services. They further note that the ultimate foundation of international competitiveness is the ability of an organization to utilize ICT, this they argue is necessary to sustain growth driven by the production of knowledge-based products. Tshinu et.al, (2008) opines that organizations need to regard ICT infrastructure as the integration of different components that interact with one another directly and indirectly for sustainability of organization's objectives**.**

Maldeni and Jayasena (2009) assert that the growth and competitiveness of banks depend on the successful application of new technologies. They acknowledge the development of e-Banking as being essential in banking industry since it enables customers to conduct their transactions electronically over the Internet. This benefits banks and customers since there is reduced cost, physical branch network and customers are no longer bound by time or geographical boundary.

KCB bank Kenya limited being the largest bank in terms of asset base has progressively integrated technology into its operation. From the adoption of the latest core banking system that is T24- R14 to the launch of KCB-Mpesa platform that allows for financial inclusivity especially for the unbanked. Adoption of i-bank and e-payments platforms has enabled KCB Bank group to maximize on its non-income profits. An investigation into KCB and its ICT integration process will with no doubt yield results that will be used to encourage other players in the industry to embrace technology so as to improve their services and also increase their bottom line.

1.3 Purpose of the Study

The purpose of this study was to determine the influence of ICT Integration in the growth of Commercial banks in Kenya, a case of Kenya Commercial Bank Kenya Limited.

1.4 Objectives of the Study.

The study was guided by the following objectives

i) To determine how digital marketing influences growth of commercial banks.
ii) To assess how mobile banking technology influences growth of commercial banks.
iii) To establish how internet banking influences growth of commercial banks.

iv) To examine how customer centric technology influences growth of commercial banks.

1.5 Research Questions.

This study will seek to establish the extent to which ICT integration affects growth of commercial banks in Kenya by answering the following research questions;

i) How does digital marketing affect growth of commercial banks?
ii) How does mobile banking technology influence growth of commercial banks?
iii) How is internet banking affecting growth of commercial banks?
iv) How does the adoption of customer centric technology influence growth of commercial banks?

1.6 Significance of the Study

The study findings is of great significance to the management of the organization as this research will help to know the extent to which ICT integration affects growth of commercial banks thus facilitating them in coming up with long term solutions.

The study is of importance to the banking industry since knowledge is power and the knowledge by other commercial banks of how ICT integration plays a significant role in the banking industry will certainly help them build on current ICT projects and invest in technology to achieve their target**.**

The study will provide the background information to other researchers and scholars who may want to carry out further research on the same topic. The study will form the basis of references and guide the researcher while carrying out their study**.**

1.7 Limitations of the Study

Due to the rapid evolution and industry dynamism of ICT not only in banking realm but also in the business world, the type, scope and application of ICT integration approaches will vary and can change from sector to sector rendering the research findings only useful to specific sectors. Also, the study of Nairobi where technology and infrastructure is not a challenge means that the results may not be generalized to underprivileged and remote areas where technology is inadequate.

1.8 Delimitation of the Study

The study focused on the extent to which ICT integration affects commercial banks in Kenya. The study was carried out at KCB Bank headquarters in Nairobi County at

Kencom House on Moi Avenue. One delimitation of the subject was that KCB Bank had an approximate 5000 employees in Kenya which was fairly large, I therefore limited my research to KCB Head Office and a selection of 3 branches within Nairobi namely Moi Avenue, Sarit Centre and Garden City.

The target population was 251 employees who were picked from top management, middle management and support staff. The study was carried out in the month of October 2017.

1.9 Assumptions of the Study

It was assumed that the staff at KCB Bank Limited who was the respondents would be available for the research and that they possessed relevant knowledge that would help the researcher to make accurate conclusion. It was also assumed that the respondents would offer the information asked of them voluntarily. This was confirmed with the high rate of return of 82.7% and the information provided by the respondents proved adequate and enabled the researcher to make accurate, valid and reliable conclusions as pertains to the objectives stated in the study.

1.10 Definition of Significant terms

Customer Centricity and ICT

Creating a positive consumer experience at the point of sale and post-sale. A customer-centric approach can add value to a company by enabling it to differentiate itself from competitors who do not offer the same experience. In this study customer centricity and ICT refers to various strategies employed by commercial banks with the support of the latest technology in order to improve customers` ease of doing business and comfort.

Digital Marketing

Digital marketing is the utilization of digital channels to promote or to market products and services to consumers and business. Digital marketing includes those efforts that send a message from a source that is the company to the receiver that is the consumer; this is made possible through the use of digital platforms and internet.

Growth

Growth in this study refers to the improvement of some part of the success of an enterprise that takes place in raising revenue, posting profits for commercial banks as well as cutting overhead and increase in network coverage. A process whereby the firm changes from a small, informal, simple and unstructured firm to a bigger, often more formal, complex and structured organization Hakkert Kemp and Zoetermeer (2006).

Information and Communication Technology (ICT) Integration in Growth of Commercial Banks

ICT refers to technologies and tools that people use to create, share, gather, store and manage information and to communicate with one another, one on one, or in groups, through the use of computers and interconnected computers networks. They are mediums that utilize both telecommunication and computer technologies to transmit information. ICTs are not single technologies but combinations of hardware, software, media and delivery systems. Hand held devices like mobile phones are also part of ICT. Kandiri (2006).

Integration

Integration is defined as the act or process of combining two or more things so that they work together. ICT integration in this study refers to the use of Information and Communication technology platform to improve and better the myriad of banking services offered by the commercial banks in Kenya to the benefit of the customers and shareholders.

Internet Banking

Internet banking technology means the availability, accessibility and usage of websites and e-mail services in cash deposit, cash withdrawal and account balance inquiry by users in the banking industry. Internet banking technology has led to the incorporation of new features for security transactions, international payments; viewing credit card statements, deposits and account history, customers can now send e-mails from the bank's home page. This implies that banks can use websites as means to provide services to customers.

Mobile Banking

Mobile banking is a service that is provided by a bank or any other financial institution, this service allows its customers to conduct a range of financial transactions remotely using their mobile devices such as mobile phone or tablet and using software usually called an app.

1.11 Organization of the Study

This study is organized into chapter one that contains the background of the Study, Statement of the problem, purpose of the study, specific objectives, limitations of the study, delimitation of the study, assumptions of the study and definition of significant terms. Chapter two comprises of Literature Review which comprises of introduction, overview of factors that influence ICT integration in the growth of commercial banks, theoretical framework, and conceptual framework, summary and research gaps.

Chapter three contains Research methodology which comprises of research design, methods of data collection and methods of data analysis. Chapter four contains data presentation, interpretation and analysis while chapter five contains a summary of findings, discussions, conclusions and recommendations.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

ICT refers to a wide range of computerized technologies that enables communication and the electronic capturing, processing, and transmission of information. These technologies include products and services such as desktop computers, laptops, hand-held devices, wired or wireless intranet, business productivity software, data storage and security, network security etc. (Ashrafi and Murtaza, 2008). ICT encompass a range of rapidly evolving technologies and they include telecommunication technologies such as telephony, cable, satellite, TV and radio, computer-mediated conferencing, video conferencing) as well as digital technologies like computers, information networks, internet, World Wide Web, intranets and extranets and software applications (Chisenga, 2006).

2.2 Concept of ICT integration in Commercial Banks

Commercial banks globally have used ICT in two ways, firstly for communication and connectivity and secondly for system re-engineering. Agboola (2010) contends that there is need for a proper alignment of technology strategy with business strategy to remain competitive in the banking industry. He critically examines ICT and banking and study concludes that the adoption of ICT in banks had impact on the structure, content and quality of banking operations. Alhaji and Tasmin (2013) assert that ICT has particularly brought about a complete paradigm shift on the bank's performance and on the customer service delivery in the banking industry. They argue that in a bid to catch up with global development, improve the quality of customer service delivery, and reduce transaction cost, banks have invested heavily in ICT, and have widely adopted ICT networks for delivering a wide range of value added products and services. They add that ICT development has a significant effect on development of more flexible and user friendly banking services. This development has led to improved customer satisfaction; improved service delivery in terms of turnaround time, the use of electronic queuing system has had profound impact on the management of queues in the banking halls. Ceylan and Emre (2013) state that ICT banking adoption has a positive impact on the level of profits, deposits and loans per branch .As operational activities are now provided via ICT branches, ICT banking facilitates banking activities in branches that require more human input.

There have been profound innovations from banking products to information technology systems that have had major impact on growth and development of banking industry. Delgado and Nieto (2004) also add that that the development of electronic communication channels has had a profound impact on the banking industry. The electronic distribution of retail banking services for example, emerged with the introduction of automated teller machines (ATMs), a technology pioneered by Barclays Bank in 1967 (Batiz-Lazo and Wood, 2007). These ATMs have really impacted positively on the banking industry especially in rural or remote areas, these machines have made it possible for people to withdraw and deposit cash at their own convenience since they operate under 24 hours.

The modernization of ICT has set the stage for extraordinary improvement in banking procedures throughout the world. For instance the development of worldwide networks has considerably decreased the cost of global funds transfer. Berger (2003) reveals banks that are using ICT related products such as online banking, electronic payments, security investments, information exchanges in financial organizations can deliver high quality customer services delivery to customers with less effort. And it is these advantages that banks are now heavily relying on ICT for competitive advantage, customer retention, customer base growth, market share and profit maximization (Aliyu and Tasmin, 2012).

2.3 Growth of Commercial Banks.

There has been a steady growth of commercial banks in post independent Kenya after National Bank of Kenya becoming the first fully-owned government bank in 1968 followed by Kenya Commercial in 1971 which was formed following the merger of the National and Grindlays Bank, with the government owning a 60-per cent majority stake. KCB has tremendously grown over the years to become the become the largest bank in asset base, profitability and coverage.

With the passage of time the financial landscape has changed to include new entrants in the banking industry that has brought the total number of banks operating in Kenya to a total of 42 commercial banks, 12 microfinance banks, one mortgage finance company, eight representative offices of foreign banks, 86 foreign exchange bureaus, 14 money remittance providers as well as three credit reference bureau. Majority of the commercial banks utilize diverse systems to grow their profits, assets and customer base. Brynjolfsson and Hitt (2000) point out that ICT contributes significantly to a firm's level of output. They established that Information Technology capital contributes to an 81% marginal increase in output, whereas non Information Technology capital contributes to 6%. Likewise they illustrate that Information System professionals are more than twice as productive as non-Information System professionals. Farrell and Saloner (1985) and Economides and Salop (1992), showed that the relationship concerning Information and Communication Technology and banks performance have two encouraging outcomes, digital marketing and mobile banking.

2.4 The evolution of Digital Marketing in Growth of Commercial Banks

Digital marketing term was first used in the 1990's, but in the 2000`s and the 2010`s is when digital marketing became a sophisticated tool for companies to effectively create a relationship with depth and relevance with their customers (International Chamber of Commerce, 2015). Today rapid evolution of digital media has created new opportunities and avenues for advertising and marketing. Fueled by the proliferation of devices to access digital media, this has led to the exponential growth of digital advertising.

Digital marketing institute describes digital marketing as the utilization of digital channels to promote or to market products and services to consumers and business (Verhoef et al., 2014). Digital marketing includes those efforts that send a message from a source that is the company to the receiver that is the consumer; this is made possible through the use of digital platforms and internet. This is evident in the evolution of online marketing and retailing; because of the integration of ICT many shoppers do not go to the nearest store but rather grab the nearest digital device and go online to shop (Essenstam, 2016).

Worth noting is the international e-commerce that has also hugely enhanced different options and reach of digital channels. International Chamber of Commerce (2015) notes that brands today are using digital touch points as channels in the marketing communications process and shoppers are using those channels to their advantage along the entire pathway to purchase. Digital marketing institute asserts that digital marketing campaigns are now becoming prevalent as more digital channels are increasingly being incorporated into the marketing plans of organizations. Platforms like Instagram, YouTube, and Facebook allow brands to become good story tellers and also provide their customers with space to share their experiences of brands and products. This means that a platform for consumer to consumer and consumer to company conversations is created thus allowing companies to show their presence, create relationships as well as mutual value with their customers.

In Kenya according to Kenya cyber security report (2016) the evolution of online supermarkets like Kilimall, Jumia and marketing platforms like OLX that offers a range of products at the convenient of the customers` home have registered high number of users. Companies are now investing heavily on digital channels like social media to sell their products and services. Business Daily (2016) indicated that KCB Group was voted as Africa's top social media brand in banking in the latest Africa Brand Index Rankings. The Africa Brand Index is a listing of the most successful brands on the continent on social media, according to key metrics such as community growth, content engagement, sentiment .It has been ranked position one for its outstanding use of social media platforms in customer engagements. Owing to KCB`s large footprint in the region, coupled with the increased brand awareness online, KCB has been keen to leverage on social media to meet its business objectives. KCB Group CEO Joshua Oigara commented that, "Social Media has grown from being a mere digital channel for "socializing" to one of the most powerful digital marketing tools for products and brands. It has also proven to be a very cost-effective way of communicating to a global audience. He added that KCB Bank Kenya had also seen an increase in engagement where more and more customers were realizing that they could effectively communicate with the bank through social media and expected timely feedback.

The performance of KCB bank group in the digital platform has been recognized regionally. From the Standard Newspaper (2015), KCB Group was named the winner of premier Africa Social Media Award. The award was for Best Use of Social Media by a Financial Institution in Africa" during the Social Media Africa Awards in Lagos Nigeria for the banks use of social and digital media as a means of mobilization and awareness sub-platform for deepening access to and enhancing the use of Social Media and to facilitate the clear-cut awareness about its positive impact. Social media through channels like Twitter, Facebook, Instagram and Linked in have given customers an opportunity to voice their displeasure or to express delight in the services or products that the bank offers. The Customer Experience department in

KCB handles all matters posted on the various social platform with the utmost urgency and attention that they deserve. Aside from marketing, the platforms also challenge the bank on what other innovative services and gaps in the banking industry that may be addressed.

2.5 Technological Advancement and Mobile Banking in Commercial banks

Tiwari et al (2007) defines mobile banking as a service that is provided by a bank or any other financial institution, this service allows its customers to conduct a range of financial transactions remotely using their mobile devices such as mobile phone or tablet and using software usually called an app. Mobile apps are now being developed and used by commercial banks and other financial institutions that provide credit to customers. This has made it easier for people to access financial resources at their fingertips. Accessing funds is now made easier by mobile banking platforms; thanks to technology, banking industry has seen a major boost in growth of customer base and profits. Vaidya (2011) identified the earliest mobile banking service offered was over SMS, a service known as SMS banking.

Capegmini (2012) asserts that in 2011 alone banks globally set aside nearly 13 billion dollars for investments in digital channels with a third of their total budget dedicated to mobile banking. Mobile commerce has grown in leaps and bounds with more customers opting to conduct their transactions from their mobile phones.

Table 2.1: Growth Ratio of Mobile Banking Users in 2012 and 2013.

Country	Percentage of consumers using mobile banking (%)		Increase in Percentage (%)
Year	2012	2013	
China	10	25	150
Brazil	10	21	110
Kenya	6	18	200
USA	11	22	100

Mobile banking technology has helped the banking industry reach the unbanked people especially in the rural areas. Agency banking is now being leveraged by banks to reach the unbanked population; this has seen banks grow their customer base and presence in the banking industry. According to Cotterill (2002) Mobile banking has also extended banking services to the remote areas, services like depositing and withdrawal of funds can now be carried out in rural areas in Ghana. He continues further that, this has enabled loading and unloading of cash in small communities or in widespread communities where people are gathered. Barclays bank offers a service called Barclays Pingit and Hello money offering services in Africa, this service allows the transfer of money from the United Kingdom to many parts of the world with the use of mobile phone.

Mobile banking is used in many parts of the world with little or no infrastructure, especially in remote areas and rural areas. This aspect of mobile commerce is also popular in countries where most of its population is unbanked. In most of these places banks are often found in big cities and customers have to travel hundreds of kilometers to the nearest bank branch. Kenya's mobile banking platform like Safaricom, Airtel money, KCB Mobi, Equitel have been used to transfer limited amount of money and are increasingly being used to pay utility bills. Al Ashban and Burney (2001) indicated that customers` adoption of mobile banking technology depended on education or awareness of the mobile banking platform and how to use, other than that it would have no vital role in banking industry.

Nafula (2006) asserts through mobile banking customers can also buy airtime directly from their account, they can do many transactions at the comfort of their homes this saves time money and energy and thus enabling customers to enjoy banking services without necessarily having to appear at the bank. She adds that a new technology in Uganda, Inter-bank communication helped to connect Crane Bank, Standard Chartered Bank, Centenary Rural Development Bank, Stanbic Bank, Allied bank, Bank of Baroda and Nile bank in Uganda. This has facilitated inter- bank communication and made electronic transfer of funds easier and taking less time.

In their study of the effect of Information Technology on the growth of the Banking Industry in Nigeria Idowa et al., (2002) concentrated on the use of technologies such as telephone banking technology. It was noted that the use of ICT ensured quick and improved service delivery to customers in Nigeria, thus indicating desirable outcomes. While the above study showed positive correlates in Nigeria it did not point to the context in Kampala thus leaving a gap that the study seeks to fill. Knowing the existence of telephone banking technology in Kampala may not be enough, there is need to investigate its influence in order for the business enterprises to benefit from it. Nicolleti (2014) concludes that that cyber security is the biggest threat to Mobile banking with particular concern on the magnitude of attacks. He also observes that the computing power of these applications could make substantial damage.

2.5.1 KCB Mobile Banking: KCB MOBI

According to KCB Group internal communication (2017), KCB Bank Kenya limited developed a mobile payment solution called KCB Mobi that enables its customers to make mobile payment within the bank and also between several banks, this is made possible through the recipients' mobile phone number. The concept behind KCB Mobi is that you will be able to enjoy 'banking as mobile as you are**.** Services found in KCB Mobi are ability to check account balance or mini-statement, sending of money directly from KCB account to M-Pesa or any other person's M-Pesa account, Purchase of airtime directly from your KCB account to top up any mobile network, transfer of cash between any KCB accounts, checking balance and loading of cash to KCB credit card and prepaid card, withdrawal of cash from any KCB Mtaani Agent and paying of Utility bills for KPLC, DSTV, ZUKU, GOTV etc.

Cash withdrawals from the mobile accounts have also been made possible through the use of ATM, where a transaction is validated by use of mobile phone and pin instead of card and pin. Researchers have shown a positive response for the use of this channel, since people can send money to their families easily at cheaper costs through the use of mobile banking.

2.5.2 KCB M-PESA

KCB in partnership with mobile service provider have come up with a revolutionary product which is a mobile based account offered exclusively to M-PESA customers. KCB customers can now enjoy credit facilities from as low as Kshs.50 to as high as KShs.1 million instantly on their mobile phones an innovation of branchless banking. KCB Mpesa enables users to access loans at attractive low interest rates of 1.16% per month with a one off negotiation fee of 2.5%. The cost for the one month loan is 3.66% with excise duty applicable on fees. A KCB MPESA customer can also save for a fixed period of time (Fixed Deposit Account) or save a little at a time for a set period (Target Savings Account) and earn interest of up to 7.35% p.a. It is also important to note that the transfer of money in and out of the KCB M-PESA is free (Business Daily, 2015).

The lucrative KCB MPESA marriage has witnessed KCB`s customer transactions with M-PESA triple to Kshs. 125 billion, while the volume of transactions has grown from 10,000 a day to 100,000.Loans borrowed through KCB Group’s mobile banking service has hit Sh7.8 billion in its one year existence with 5.2 million customer accounts and disbursing an average of Kshs 660 million loans monthly. KCB boasts of 1.5 million customers beside those of KCB M-Pesa but it suffices to say that Mobile banking is playing a pivotal role in creating huge assets capital for the bank today (Business Daily, 2015).

The realization of mega profits is pegged on the willingness of the bank to invest heavily in ICT integration and innovation as exhibited clearly by KCB MPESA.

2.5.3 SMS Alerts

KCB has installed an innovative feature for its customers whereby a customer can request to have immediate and regular notifications via SMS of the credit and debit transactions that hit his account .The customer advises the bank on the threshold of the minimum amount of money whether debit or credit which he should be notified upon. This technology has proved to be key in tracking fraudulent transactions because an illegitimate transaction is quickly identified.

2.6 The Acceptance of Internet banking technology in commercial banks

Internet banking has changed the way banks operate in Kenya. Kenyan banks are dynamic because even though a whole new dimension has emerged about the concept of banking. They are fast adapting to the changing trends and demand of the customers. This has been exhibited by the numerous products and services that have been rolled out by banks that are internet related.

Solanki (2011) states that Internet banking is one of the latest technological wonders in the recent past involving use of ICT for delivery of banking products and services. ICT banking is changing the banking industry and is having a major effect on banking relationships. Banking is now no longer confined to branches where one has to approach the branch in person**.**

Ayadi (2003) explains that access to electronic means of payment and the high number of customers connected to the Internet has changed the perception of banks toward market and increased the development of Internet Banking. Hutchinson and Warren (2003) argue that Internet banking requires a sound security procedure that involves designing effective methods via which users can be authenticated in a remote environment such that transactions being conducted are secured within their respective environments. Internet banking technology has made remarkable changes in the banking industry, which include: cost reduction due to electronic processing carried out on the Internet. According to Kerem (2003) Internet banking technology has led to the incorporation of new features for security transactions, international payments; viewing credit card statements, deposits and account history, customers can now send e-mails from the bank's home page. This implies that banks can use websites as means to provide services to customers. Recently in South Africa Internet banking accounts surpassed one million and continued to rise rapidly. There is no wide spread dissatisfaction about the security concern on the use of Internet banking in South Africa instead Internet banking has led to increased customer support and quickens transactions and payments of customers (Buys and Brown, 2004).

Ezeoha (2005) in his study of Regulating Internet Banking in Nigeria, noted that there are security concerns in Internet banking where fraud has become a daily business to some individuals; Internet banking has remained insignificant due to fraud and forgery, e-banking services are offered in Naira only and that in Nigeria Internet banking may take a long time to fully become one of the economic relevance in the country banking practice because of fraud which has made it complex hence causing few customers to transact their businesses through the Internet. Coupled to that is that the development of bank websites does not go beyond information purposes.

According to NIBSS (2014) on the 2014 E-Payment Fraud Landscape in Nigeria, Internet banking and ATM scored as the lead channels for perpetrating E-fraud in 2014. In 2014 in Nigeria, internet banking accounted for a loss of about Nigerian Naira NGN 3.2 billion to fraudulent transactions in terms of value. Rogers (2003) in his Diffusion of Innovations Theory, opines that consequences are changes that appear in an individual or social system as a result of the adoption or rejection of an innovation. In this case one of the variables can be used to predict another. Rogers (2003) argues that in order for one to understand consequences, a three dimensional approach is very important which includes: desirable versus undesirable, direct versus indirect and anticipated versus unanticipated outcomes.

This research focused on the desirable and undesirable dimension implying a negative or positive effect. Employing Diffusion of innovation theory, desirable outcomes will be seen in the significant technological advancements in the industry that have enabled greater convenience for the customers and higher profits for the banks. Undesirable outcomes on the other hand will be the downside owing to the propensity of fraudulent transaction through various avenues for example card skimming, phishing, impersonation as has been witnessed globally but mostly in Nigeria. Rogers (2003) discussed consequences of innovations, which are also important in explaining the influence of ICT, on the banking industry. Other researchers who have used this Theory include: Namirembe (2007) in her study entitled Influence of ICT on the banking industry: the case study of Kampala noted that the impact of internet banking, telephone banking and ATMs on the banking industry in Kampala. She concluded that ICT had a major impact in the development and growth of the banking industry in Uganda.

Yeap and Chach (2005) carried out a study in Malaysia about Internet banking and found that Internet banking was largely adopted by and used by clients of foreign banks. Saloner and Shepard, R. (1995), studied Adoption of Automated Teller Machines in US. Banks and it`s positive impact in banking industry. Furst, Lang and Nolle (2000) studied the adoption of transactional web sites among US nationally chartered banks the results showed that banks used the internet largely as a digital distribution channel, mainly for money transfers, brokerage and securities trading transactions. Courchane et al., *(*2002) in their study about the application of Internet banking in Financial Matters, developed a model of the probability of adoption basing on the findings. Similarly to Courchane et al., the influence of ICT on the banking industry is expressed in form of an empirical model basing on the findings after data collection.

Tan and Teo (2000) studied factors influencing the adoption of internet banking in Singapore basing their study on the Theory of Planned Behavior. Their study findings, showed that adoption of internet banking was driven by attitudinal factors such as the relative advantage of internet banking; compatibility of internet banking with respondent's values, experience, and needs; trial ability; and risk, Polatoglu and Ekin (2001) studied an empirical investigation of the Turkish Consumers Acceptance of Internet Banking Services and found that cost and time saving dimensions are perceived as a major benefits when customers use Internet banking more often and for larger transactions.

2.6.1 KCB I-Bank

In Kenya and KCB Bank, internet banking has revolutionized the movement of funds from one party to the other and further created greater convenience for the customers. KCB offers a platform called I-Bank which enables its customers to transact in the same way they would, had they physically visited the branch. Customers are able to view their statements and query balances. All types of funds transfers be they internal transfers, Electronic Funds Transfer (EFT), Real Time Gross Settlement (RTGS) or SWIFT can be done from KCB I-Bank enabled hand held device. Mobile money transfers from one's account to a mobile phone or vice versa is also possible with I-Bank. Payment of Utility bills like Water, Electricity and DSTV is also a reality under I-Bank. Banking need not be a long and tedious process with a lot of paperwork because with KCB I-Bank all necessary services can be executed at the touch of a button (Ongwen, 2015).

2.6.2 KCB Quick pay

Another service offered by KCB in internet banking is Quick pay, it is an online payment tool that enables users' mostly corporate institutions, to generate their payroll for their employees and share the files electronically with KCB bank for onward transmission to their staff. The funds for the payment of salaries are checked by the system automatically and if the customer had not funded the account then the file is put in abeyance. The files sent are usually in encrypted format to forestall any security fears and possible loss. Quick pay has brought about great convenience for the corporate customer because of the ability to pay their workers without the need of physical movement of personnel to present cheques and payrolls.

2.7 Influence of ICT and Customer Centricity in growth of commercial banks

Customer Centricity is a specific approach to doing business that focuses on the customer. Customer centric businesses ensure that the customer is at the centre of a business's philosophy, operations or ideas. These businesses believe that their clients are the only reason that they exist and use every means at their disposal to keep the client happy and satisfied. Jack Ma (Founder, Alibaba Group) is famous for the quote "Forget about your competitors, just focus on your customers".

2.7.1 Electronic Queue Management System (EQMS).

In the digital age today reaching out to your customers` needs and desires is paramount, KCB bank was amongst the first banks in the country to introduce Electronic Queue Management System (EQMS).This was as a response to an outcry from customers who had to endure standing for long periods of time in long queues in the banking hall waiting to be served Sheikh et al., (2013). With EQMS we have seen an end to the spiraling queues in the banking hall during end of the month and during school opening days because the customer only picks a ticket number from the automatic dispensing machine and takes a seat awaiting for the number to be called out by the Automatic display. The new arrangement ensures that the banking process is more orderly and comfortable. EQMS has enabled staff reallocation because unlike before when a resource was deployed to man the queues in the banking hall now it is automated. The tellers also report higher productivity and supervisors can monitor performance from the number of customers served by each teller.

2.7.2 KCB Contact Centre

In 2009, KCB Bank launched its first in-house 66 seater ultra-modern 24 Hour Contact Center which would serve customers as a one stop shop for customer queries. The objective of the Contact Centre was also an attempt by KCB to manage in-bound and out-bound customer interactions across its large bank network so that its expansion strategy would not impact negatively on customers operations. The Contact Centre has lived up to its billing by providing timely solutions to the bank customers.

2.7.3 E-Statements

At KCB ICT integration has enabled customers to receive their bank statements electronically through E-Statement. Physical statements are now only limited to corporate customers and upon special request. This latest move has allowed for great saving in the area of postage and paper.

2.7.4 Core Banking System

In a move to offer seamless service to all its customers KCB bank has initiated a system for one branch network where one ICT system is in use in all its branches and therefore customers enjoy the same service wherever they are.

2.8 Theoretical Framework

Change is the movement of a company from its present state towards some desired future state to increase its competitive advantage. Change management encompasses stewardship of this process and is designed to set a firms course of action, identifying strategies that the firm will use to compete in the market place and how it will organize its internal activities. To adequately document the KCB experience, Change Management theory can be used as the main anchor. KCB Bank by design has grown into a great bank because of its ability to embrace change as a result of the demands placed on it by the market place and social forces. Technology as a change agent has largely impacted the change management process in KCB.

Kurt Lewin in 1947 identified a model of change which had a three step change, unfreezing, changing and refreezing. To explain his theory he used the analogy of a block of ice and the various changes you have to put it through if you wanted it to be a cone of ice. The first stage of change would be to melt the block of ice to return it into a malleable form this first stage is called unfreezing.

The second stage of change involves the molding of the iced water into the desired shape in this case a cone shape, this stage is called change. The third and final stage requires that you must solidify the new shape so that the new change is made permanent; this final stage is called refreezing. The KCB of yester years had to break down the old beliefs, values, attitudes and ways of operating that had produced poor results. The bank had to accept that change is necessary and in the 90`s the bank underwent the unfreeze stage of change as it started its journey into modernizing its operation process with the use of ICT. By the year 2000 KCB had overcome the uncertainty created in the unfreeze stage and now proactively supported the new direction which was hinged largely on ICT .Change was taking place not only globally but also in every facet of the bank. Staffs that were resistant to change were unfortunately harmed through rationalization in this stage as the bank aggressively pursued a policy of computer literacy and modernization of its processes.

Mid 2000`s to present saw KCB reemerge as the leader in the banking industry not only through outward signs like rebranding but also because of its stability and consistent profit making as was enabled by its investment in the latest and most expensive use of ICT operations. The employees of the bank embraced the new changes in ICT technology effected by the bank, the new ways of working and also internalized the strategy of the bank. The refreeze stage has enabled the bank celebrate the successes brought about by the change and has returned the bank to stability on the business circle, Zollo and Winter (2002) define dynamic capability theory as a pattern of collective activity through which the organization systematically generates and modifies its operating routine in pursuit of improved effectiveness. KCB bank has evolved over the years, modifying its organizational culture to suit the present needs of its customers.

The resource-based view (RBV) theory also states that the basis for competitive advantage of a firm lies primarily in the application of a bundle of valuable tangible or intangible resources at the firm's disposal. In the case of KCB, ICT and innovation could be the resources that affirm uses to compete favorably in the volatile market place. ICT and innovation are immutable in that if a firm is dynamic then the firm is inevitably innovative.

2.9 Conceptual Framework

The study looks at the effect of ICT integration on growth of banking industry in Kenya. Some of the ICT innovations looked at include digital marketing, mobile banking, and internet banking technology and customer centricity. These have been summarized in conceptual framework as shown in Figure 2 below.

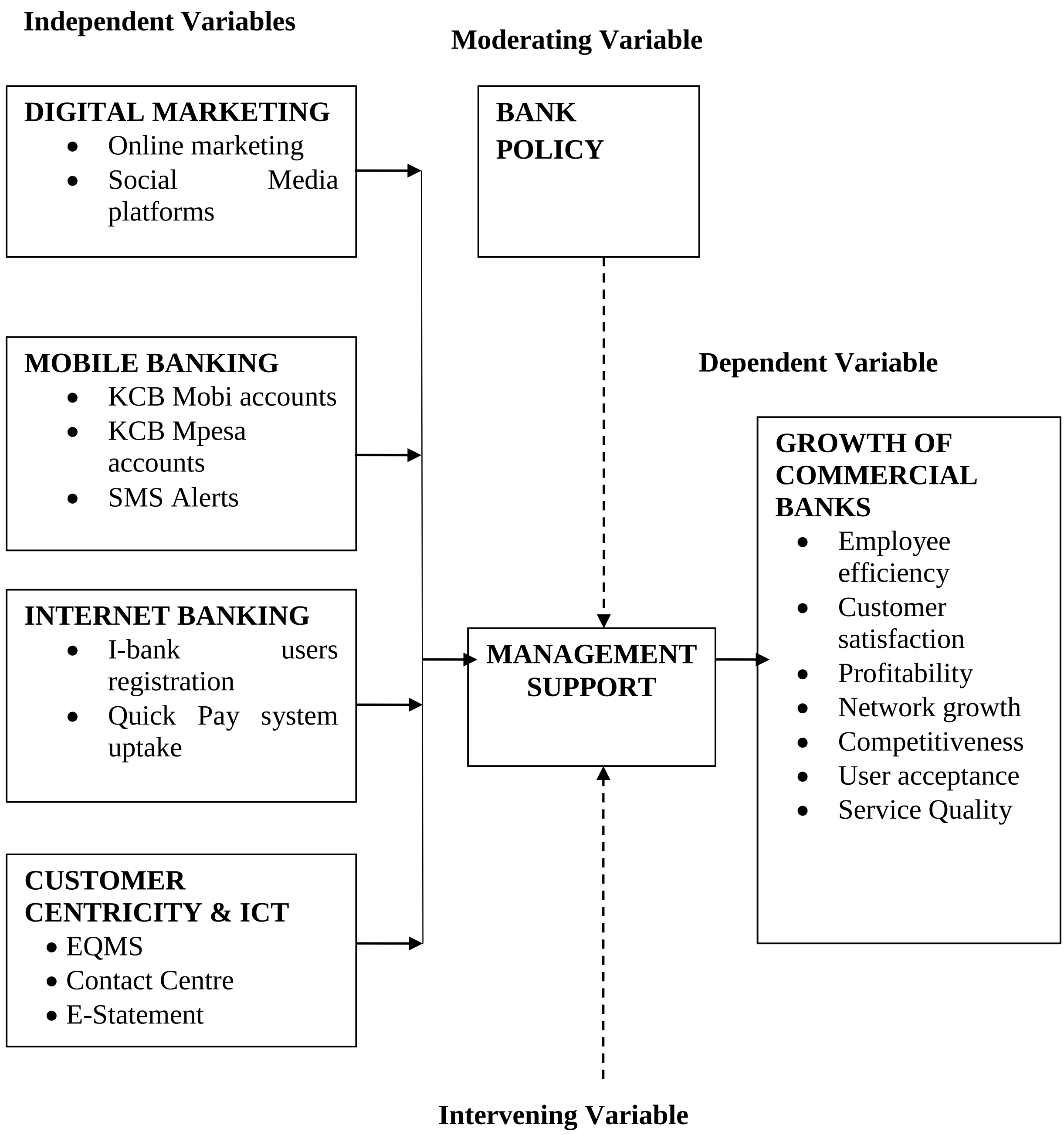

Figure 1 Conceptual Framework

2.10 Summary

ICT integration has brought remarkable progress in the growth of the banking industry. From introduction of ATMs, Internet banking, mobile banking, cheque clearing to digital marketing. It has truly influenced growth of banking industry in Kenya. In this study variables such as digital marketing, mobile banking and internet banking were looked at, and how they have impacted the banking industry. This study will seek to determine the extent to which these variables have influenced the growth of banking industry in Kenya. The themes emanating from the variables will be used as well as conceptual framework of the study provided.

2.11 Research Gaps

Much research has been undertaken on the influence of ICT on the growth of the banking industry. Most research however has not delved deeper into the particular ICT related products and channels that have impacted heavily on the industry and consequently lead to its growth.

This study will identify the various ICT products that KCB has employed in its operations or partnered with third parties like Safaricom to bring about a unique entity like KCB Mpesa which has revolutionized E-commerce.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

This chapter focused on the research technique that was used to collect data. It covered the research design, target population, sample selection and size, data collection and data analysis.

3.2 Research design

Descriptive research design was used in the study. Descriptive research seeks to establish factors associated with certain occurrences, outcomes, conditions or types of behavior. Descriptive research is a scientific method of investigation in which data is collected and analyzed in order to describe the current conditions, terms or relationships concerning a problem. A descriptive study is carefully designed to ensure complete description of the situation, making sure that there is minimum bias in the collection of data and to reduce errors in interpreting the data collected (Kothari, 2004).

3.3 Target population

Target population is defined by Kothari (2004) as a universal set of the study of all members, of real or hypothetical set of people, events or objects to which an investigator wishes to generalize the result. For the purpose of this study, the target population consisted of managers from various units within the bank adding to 251 employees who work mainly from Head Office and three branches within Nairobi. The branches which had been identified for the research are Moi Avenue, University Way and Garden City. Aside from proximity to the researcher, the branch size had also been taken into consideration as the chosen branches, Moi Avenue, University Way and Garden City are large, medium and small in size respectively.

Table 3.1: Target Population

Department	No of Employees
Back Office Operations	70
Information and Technology	100
Customer Experience-Department	19
Retail	62
Total	251

3.4 Sample size and Sampling Procedures

According to Kothari (2004) a sample is that part of the population which has been selected for observation and analysis. Therefore sampling is the process of getting representative number of the subject. The state of population under study was identified and the researcher used stratified random sampling method to represent the issue under study. According to Mugenda and Mugenda (1999) these are participants or groups consisting of individuals with a variety of opinions, backgrounds and actions relative to a topic. The reason for using this was to enable the researcher's source of information from different groups which can be helpful for the study.

3.4.1 Sample Size

Using the Krejcie and Morgan table, (1970) yielded a much larger samples size which was unmanageable. The study therefore took 20% of the population from each department as recommended by Mugenda and Mugenda (1999) which posits that a representative sample should be between 10% and 30%.

The sample size of 50 enables the researcher to reach majority of the participants and also achieve better results in both quality and quantity.

Table 3.2 Sample Size

Department	**No of Employees**	**Sample**	**Percentage of population (%)**
Back Office Operations	70	14	20
Information and Technology	100	20	20
Customer-Experience Department	19	4	20
Retail	62	12	20
Total	**251**	**50**	**20**

3.4.2 Sampling procedures

A sample of 50 out of a target population of 251 managers was selected using stratified random sampling technique. The population is relatively small and therefore the researcher managed to issue 50 questionnaires to the selected managers to participate in the study.

3.5 Research instruments

Kothari (2004) describes primary data as first-hand information collected, compiled and published for some purpose. This data was collected from the respondents by the researcher in form of questionnaires that they were required to fill. Since it was collected from original sources for specified purposes, it involved collection of data from the respondents from their own observations and experiences. Secondary data is information already collected by someone and for some purpose and are available for the present study. This is data which was originally collected for different purpose and at different time. A combination of closed ended questionnaires and open ended questionnaires was used be used to collect data.

3.5.1 Pilot testing

A pilot study is an initial experiment performed on a small scale to determine feasibility prior to the research study undertaken on a full scale.

Pilot testing was done by a random sampling of five managers from Back Office Operations Division. Questionnaires were administered to the five managers whose response was not included in the final report. The pilot test assisted the researcher in predicting the appropriate sample size also improved upon the study design.

3.5.2 Validity of Data Collection Tools

Validity is the extent to which a test measures what it is supposed to measure. Mugenda and Mugenda (1999), defines validity as the degree to which a test measures what it purports to measure. It enables the researcher to remove irrelevant, biased and ambiguous questions hence promoting validity. Validity of instruments refers to the accuracy, clarity, soundness, suitability, meaningfulness or technical soundness of the research instrument. Validity was established through a pilot study whose aim was to test the reliability of the questionnaires in order to exclude unnecessary items, make useful additions and thus refine it. An expert opinion from the supervisor was also sought for review and recommendation.

3.5.3 Reliability of Instrument

Reliability refers to the repeatability of findings whereby a measure is considered reliable if a person's score on the same test given twice is similar. Reliability is defined as a measure of the degree to which the research instrument yields consistent results or data, after repeated trials (Mugenda and Mugenda, 1999). In this study Internal Consistency Reliability test was used to measure reliability using Cronbach's alpha also referred to as coefficient alpha. It measures how consistently participants respond to one set of items. It requires only one sample of data to estimate the internal consistency reliability which is then computed using Statistical Package for Social Sciences (SPSS) Version 2.2 .Cronbach's alpha ranges from 0.0 to 1.0 whereby the minimally acceptable measure of reliability is 0.70.

3.6 Data collection procedures

Questionnaires were hand-delivered and collected after a few days. The types of questions used included both open and closed ended. Closed ended questions were used to ensure that the given answers were relevant. The researcher phrased questions clearly in order to make clear dimensions along which respondents were analyzed. In open ended questions, space was provided for relevant explanation by the respondents, thus giving them freedom to express their feelings. This method was considered effective to the study in that; it created confidentiality. The presence of the researcher was not required as the questionnaires were self-administered.

3.7 Data Analysis Methods

According to Kothari (2004), data analysis procedure includes the process of packaging collected information, putting it in order and structuring its main components in a way that the findings can be easily and effectively communicated. After the fieldwork, before analysis, all questionnaires were adequately checked for reliability and verified. Editing, coding and tabulation were carried out. The data was analyzed using quantitative and qualitative techniques where quantitative analysis was done using frequency distribution and use of measure of central tendency. The data was presented by use frequency tables while qualitative analysis was presented through content analysis and evaluation of text material.

3.8 Ethical Consideration

This relates to right and wrong conduct in carrying out research. The study was conducted by following the ethical principles of research. Permission was sought for the use of bank reports. The rights of the respondents were respected .The researcher maintained high ethical standards and did not disclose any information about the bank and his clients to third parties**.**

3.9 Operationalization of Variables

A variable is an empirical property that can take two or more values. It is any property that can cause a change, either in quantity or quality. A dependent variable is a variable whose outcome depends on the manipulation of the independent variables. Independent variable (predictor) on the other hand is a variable that is manipulated to cause changes in the dependent variable. In this study the independent variables were Digital Marketing, Mobile Banking, Internet Banking and Customer Centricity.

Digital Marketing strategies are online marketing tools and like Social Media platform tools like Facebook and Twitter, which are avenues that take advantage of technological advancements in order to offer better services. Mobile banking products like KCB Mobi, KCB Mpesa, KCB Mkopa and SMS alerts are used to offer product differentiation and flexibility in service. Under Internet banking we explore two services namely I-Bank and Quick Pay which are pegged on offering convenience to the customer. Customer Centricity on the other hand focused on new and innovative services that support customer intimacy and retention like Electronic Queue Management System (EQMS), E-Statements, Contact Centre and One branch network.

Moderating variables behaves like the independent variable in that it has a significant contributory or contingent effect on the relationship between the dependent and the independent variable. In this study the moderating variable is Bank Policy.

An intervening variable is a variable that might affect the relationship of the dependent and independent variable but is generally difficult to measure or to see the nature of their relationship. In this study our intervening variable was Management support.

Table 3.3 Operationalization Table

RESEARCH OBJECTIVES	VARIABLE	INDICATORS	MEASURES OF INDICATORS	DATA COLLECTION METHOD	TYPE OF ANALYSIS
To assess how digital marketing influences growth of commercial banks in Kenya.	Digital Marketing **Type of Variable** Independent variable	• Presence of company digital marketing materials • Relevance of product offering to improve service	• Number of working digital channels available targeting customers • Frequency of use of the facilities in daily operations	• Questionnaire • Observation **Level of Scale** Ordinal	Descriptive statistics **Levels of Analysis** Proportions
To assess how mobile banking influences growth of commercial banks in Kenya.	Mobile Banking **Type of Variable** Independent variable	• Greater uptake of mobile apps • Variety of product options offered on Mobile platform • Less congestion and queues in the banking hall • Faster Turn Around Time on transactions	• Number of customers registered on mobile platforms. • Number of customers actively using services • Numbers of customers served at the branch compared to previous time • Number of successful transactions performed on Mobi platform	• Questionnaire • Records • **Level of Scale** Ordinal	Descriptive statistics **Levels of Analysis** Proportions

To examine the extent to which internet banking influences growth of commercial banks in Kenya.	Internet Banking **Type of Variable** Independent variable	• Presence of working internet connections • Attitude towards Internet banking • Possession of relevant ICT skills	• Frequency of internet use amongst customers • Frequency of Internet banking usage by customers • Ease of use of Internet banking apps	• Questionnaire **Level of Scale** Ordinal	Descriptive statistics **Levels of Analysis** Proportions

To assess how customer centric technology influences the growth of commercial banks in Kenya.	Customer Centricity and ICT **Type of Variable** Independent variable	• Customer satisfaction • Customer feedback • Product differentiation	• Number of new and repeat customers happy with new technologies • Positive and high customer survey results • Number of new ICT customer tailored products	• Questionnaire • Observation **Level of Scale** Ordinal	Descriptive statistics **Levels of Analysis** Proportions

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

This chapter presents data analysis, presentation and interpretation of findings obtained from the participants from KCB Bank Kenya Ltd, Nairobi. The findings of this study generated enough information which effectively achieved the research objectives. The survey focused on assessing the influence of ICT integration in the growth of commercial banks, case of Kenya Commercial Bank Kenya Limited**.** Descriptive statistics such as frequencies and percentages were used in data analysis. The analyzed data was presented in tables and interpretations with regards to ICT were made with reference to the four themes discussed namely, Digital Marketing, Mobile banking, internet banking and customer centricity.

4.2 Reliability Analysis

A pilot study was carried out to determine reliability of the questionnaires. The pilot study involved the sample respondents. Reliability of the questionnaire was evaluated through Cronbach's Alpha which measures the internal consistency. Cronbach's alpha was calculated by application of SPSS for reliability analysis. The value of the alpha coefficient ranges from 0-1 and may be used to describe the reliability of factors extracted from dichotomous and or multi-point formatted questionnaires or scales. A higher value shows a more reliable generated scale. Cooper & Schindler (2003) indicated 0.7 to be an acceptable reliability coefficient

Table 4.1 illustrates that all the four scales were reliable as their reliability values exceeded the prescribed threshold of 0.7

Table 4.1: Reliability Coefficients

Scale	Cronbach's Alpha	Number of Items
Digital Marketing		
Online marketing	0.781	5
Social media platforms-Twitter, Facebook,	0.821	5
Mobile banking technology		
KCB Mobi Accounts	0.876	5
KCB Mpesa Accounts	0.871	5
SMS alerts	0.721	5
Internet banking strategy		
KCB I-Bank	0.823	5
Quick pay	0.795	5
Customer Centric strategy		
EQMS	0.851	5
Contact Centre	0.776	5
E-Statement	0.821	5
Core banking system-T24	0.873	5

4.3 Questionnaire Response Rate (QRR)

This study was conducted in four divisions of the Kenya Commercial Bank, Head Office - Nairobi. A total of 50 questionnaires were administered randomly to the staff. Out of these, 41 were successfully collected indicating an 82.7% response rate. The response rate per department is as shown in Table 4.2.

Table 4.2: Questionnaires response rate

S/No.	Department	Questionnaires Issued	Questionnaires Returned	Percentage (%)
1	Back Office/ Operations	14	13	92.9
2	Retail	12	11	91.7
3	Customer-Experience Department	4	4	99.9
4	Information Technology	20	13	65.0
	Total	50	41	82.7

4.4 Characteristics of the Respondents

The general characteristics of the staffs who participated in the study are as cross-tabulated in Table 4.3.

Table 4.3: General characteristics of the respondents

Department		Gender		Total			
		Male	Female	21- 30 yrs	31- 40 yrs	41 Above yrs	
Back-Office Operations	Count	8	5	3	6	4	13
	% of Total	19.5	12.2	7.3	14.63	9.8	31.7
Retail	Count	7	4	2	5	4	11
	% of Total	17.7	9.8	4.8	12.2	9.8	26.9
Customer Experience Department	Count	2	2	3	1	0	4
	% of Total	4.9	4.9	7.3	2.4	0	9.8
Information Technology	Count	8	5	3	8	2	13
	% of Total	19.5	12.2	7.3	19.5	4.9	31.7
Total	Count	25	16	11	20	10	41
	% of Total	60.9	39.0	26.8	48.8	21.9	100.0

The male population was higher among the participants accounting for 60.9% as compared to 39% of the female participants. The majority of the respondents were aged between 35 and 44 years making a total of 48.8% of the total respondents. 26.8% of the respondents were aged between 25 and 34 years, 21.9% of the respondents were aged between 45 and 54 years, 2.4% of the respondents were aged above 55 years while there were no respondents aged below 25 years meaning majority of KCB bank managers were aged 25 years and above.

4.4.1 Level of Education

Table 4.4 above indicates the level of education analysis.

Table 4.4 Level of Education

	Frequency	Percentage (%)
Diploma	3	7.3
Degree	10	24.4
Masters	23	56.1
Others/Specify	5	12.2
Total	41	100

According to the analysis majority of the respondents 56.1% had masters level of education, this indicated that that KCB Bank Kenya ltd management had a very educated management team. 24.4% had master's level education. Those that were above 41 years had the lowest level of education majority had form six level of education represented by 5(12.2%) while 3(7.3%) had diploma level of education. From the analysis it can be concluded that the KCB Bank Kenya ltd recruited most of it staff after they had completed university education. It can also be concluded that the high level of education in the managerial team plays an integral role in the training and use of ICT thereby creating a techno savvy and confident staff.

4.4.2 Duration of Work

The respondents were asked to indicate the period in years they have worked in the bank. The results were analyzed and presented in the table and figure below

Table 4.5 Duration of Work

	Frequency	Percentage (%)
Below 5 years	0	0
5 to 10 years	6	14.6
10 to 15 years	9	21.9
Over 15 years	26	63.4
Total	41	100

From table 4.5 the majority of employees have worked with the KCB Bank for over 15 years represented by 26(63.4%). Those that had worked for between 10 to 15 years were 21.9% while 14.6% who were lowest had worked for a period between 5 to 10 years. The results of the study were therefore good since a more experienced sample in terms of number of years worked are among the population that took part in the study thereby making findings more reliable. The long period of years worked indicates that KCB is a solid and stable bank, the staff acquire a mastery of the ICT systems and also get on the relevant job experience, This goes a long way in ensuring KCB grows head above shoulders compared to other commercial banks.

4.4.3 Respondent Category

Table 4.6 indicates the various level of management from which the respondents were drawn.

Table 4.6 Respondent Category

Category	**Frequency**	**Percentage (%)**
Top Management	2	4.9
Middle Management	12	29.2
Low Level Management	27	65.9
Total	41	100

Table 4.6 indicates that majority of employees are in the low management level 65.9% while 29.2% are at middle management levels. The least number of employees are at top management level at 4.9%.

4.5 Digital marketing and growth of commercial banks

The influence of various factors in the adoption of digital marketing was measured using both closed and open ended questions. In open-ended questions, the respondents were given room to explain their answers in detail. In the closed questions, the participants used Yes and No structure as well as a five-point Likert scale (i.e. 5= Strongly Agree, 4= Agree, 3= Neither, 2= Disagree and 1= Strongly Disagree) to indicate degree of agreement or disagreement with the highlighted statement. The various aspects of digital marketing that were being investigated included online marketing and Social media platforms-Twitter, Facebook, Instagram, and You Tube.

Table 4.7 Shows the effect of digital marketing on the growth of commercial banks.

Table 4.7 Effect of digital Marketing on growth of commercial banks in Kenya

Variable	Rating	Frequency	Percentage (%)
Does digital marketing affect growth of commercial banks in Kenya?	YES	41	100.0
	NO	0	0.0

From the analysis, 100% of the total respondents stated that digital marketing affected growth of commercial banks in Kenya. Majority of the respondents stated that banks had embraced ICT in the banking market space and that it drove growth by increasing the number of new customers especially through internet ads and social platforms like twitter, YouTube, Facebook and Instagram where banks have set up accounts to drive their marketing campaigns**.**

4.5.1 Online Marketing and Social media platforms

On the influence of online marketing on growth of commercial banks in Kenya, respondents responded through structured closed ended question. With a five-point Likert scale to indicate the extent to which they agreed, or disagreed, that corporate strategy influenced the choice of sales and marketing strategy at KCB. Their responses have been summarized in Table 4.8

Table 4.8: Online Marketing and Social media platforms

	1 Strongly Disagree (%)	2 Disagree (%)	3 Neither (%)	4 Agree (%)	5 Strongly Agree (%)
Online Marketing	5.0	14.9	7.1	53.2	19.9
Social media platforms	12.8	14.2	9.2	49.6	14.2

From table 4.8 it can be seen that 53.2% of the respondents agreed that they can attribute growth of commercial banks in Kenya to online marketing campaigns. Also 19.9% of the respondents strongly agreed that online marketing influenced the growth of commercial banks. However, a total of 5.0% of the respondents strongly disagreed with that position while 14.9% disagreed. Only 7.1% were undecided.

A total of 14.2% of the respondents strongly agreed that social media platforms influenced the growth of commercial banks with a further 49.6% agreeing with the same. However, 12.8% and 14.2% of the respondents strongly disagreed and disagreed respectively with that position while 9.2% remained undecided.

The responses show a clear trend where the respondents admitted that digital marketing, indicated by online marketing and social media platforms like twitter, Facebook, Instagram and you tube, influenced the growth of commercial banks. This indicates that the managers are well versed in the convenience that digital channels provides, the managers will therefore be good brand ambassadors of the services provided by the bank and hence promote growth of the bank.

4.6. Mobile Banking and growth of Commercial banks

Integration of IT and mobile telephony has emerged to be a viable solution to increased financial inclusion for the unbanked. Mobile banking technology has enabled bank customers to get financial services by use of their mobile phones. The respondents gave their opinions on the influence of mobile banking on the growth of commercial banks in Kenya. Their responses were summarized in Table 4.9.

Table 4.9: Effect of mobile Banking on growth of commercial banks in Kenya.

Variable	Rating	Frequency	Percentage (%)
Does mobile banking affect growth of commercial banks in Kenya?	YES	41	100
	NO	0	0.0

From the table 4.9 above 100% of the respondents generally felt that mobile banking had an effect on the growth of KCB as a commercial bank in Kenya. They cited that more and more customers were adopting mobile banking thus affecting the number of time customers visit the banking halls. This has positively affected bank operation cost especially reduction of staff costs and increased revenue through transaction cost charged by banks. Majority of KCB Bank managers said that mobile banking technology has enabled banks to penetrate in rural areas thus the study indicates that mobile banking technology is a positive aspect of enhancing banking reach and affordability.

On the extent of the effect of mobile banking technology on growth of commercial banks in Kenya, respondents responded through structured closed ended question. With a five-point Likert scale to indicate the extent to which they agreed, or disagreed, that the various mobile payment tools employed by KCB influenced growth. Their responses have been summarized in Table 4.10

Table 4.10: Extent of the effect of mobile banking technology on the growth of commercial banks in Kenya

Mobile Banking Technology	1 Strongly Disagree (%)	2 Disagree (%)	3 Neither (%)	4 Agree (%)	5 Strongly Agree (%)
KCB Mobi accounts	0.0	6.3	12.1	42.5	39.0
KCB Mpesa account	0.0	4.4	5.7	59.9	29.9
SMS Alerts	0.0	5.7	30.6	42.3	21.3

From table 4.10 it can be seen that 39.0% of the respondents strongly agreed that opening KCB Mobi accounts affected the growth of KCB Bank Kenya ltd in terms of the market share, a further 42.5% were in agreement that in deed KCB Mobi accounts would lead to the growth of KCB Bank Kenya ltd. On the other hand, 6.3% disagreed with that view while 12.1% were undecided on whether it affected growth of banks.

In addition, 29.9% of the respondents strongly agreed that the KCB Mpesa accounts had great effect on the growth of KCB Bank Kenya ltd. with a further 62.3% agreeing with the same. However, it can be seen that 5.7%, disagreed that KCB Mpesa accounts had an influence on the growth of banks. 10.6% were undecided.

KCB Bank SMS alert service has been indicated to be a positive factor in the growth of KCB Bank Kenya ltd. A total of 42.3% of the respondents agreed that the SMS alerts were effective in customer retention. Quite a good number of employee 30.6% were not sure whether indeed it affected the growth of the bank. They cited that the SMS was mainly used to generate revenue since and that it should be made free. A further 21.3% of the respondents strongly agreed that in deed SMS Alert services provided by KCB bank had an effect on the growth of the bank. This was because customers who had enrolled to this service expressed a high level of satisfaction and that they referred others to open an account with KCB Bank Kenya. However, 5.7% disagreed that the bank SMS alert service had an effect on the growth of the bank.

The trend from the responses revealed that the mobile banking technology indicators namely KCB Mobi account, KCB Mpesa accounts and SMS alerts, have a major influence on the growth of KCB as commercial bank.

4.7 Internet banking and growth of Commercial banks

On the influence of internet banking on the growth of commercial banks in Kenya, the respondents used Yes and No structured questions as well as a five-point Likert scale to indicate the extent to which they agreed that internet banking influenced growth of commercial banks in Kenya. Their responses have been summarized in Table 4.11 and 4.12

Table 4.11: Effect of Internet banking on the growth of commercial banks in Kenya

Variable	Rating	Frequency	Percentage (%)
Does Internet banking affect growth of commercial banks in Kenya?	YES	41	100.0
	NO	0	0.0

From table 4.11 it can be seen that 100% of the respondents agreed that internet banking has an effect on the growth of commercial banks in Kenya. They argued that it had led to a decrease in transaction cost especially on the part of customers. That is transaction cost over the counter is usually expensive since clients have to pay for cash handling fees especially when they are doing a withdrawal or transfers. Respondents said that this will soon be done away with since bank customers can now transfer cash on line to their creditors and debtors. Customers can also check for their account statement on line instead of subscribing for monthly, quarterly or annually account statement which they have to pay for.

Table 4.12: Extent of effect of Internet banking on the growth of commercial banks in Kenya

Internet Banking	1 Strongly Disagree (%)	2 Disagree (%)	3 Neither (%)	4 Agree (%)	5 Strongly Agree (%)
KCB I-Bank	4.3	5.0	5.0	37.6	48.2
Quick pay	3.5	9.9	6.4	39.7	40.4

From Table 4.12 it can be seen that 48.2% of the respondents strongly agreed that KCB I-Bank has a major influence on the growth of commercial banks in Kenya. A further 37.6% of the respondents agreed with the same. However, 5.0% of the respondents disagreed with that position and another 5.0% of the respondents were undecided on whether KCB I-Bank affects or does not affect the growth of commercial banks in Kenya. On Quick pay and the effect it has on the growth of commercial banks in Kenya, 40.4% felt strongly that Quick pay affects the growth of commercial banks in Kenya, with a further 39.7% of the respondents agreeing with the same view. However, 3.5% and 9.9% of the respondents strongly disagreed, and disagreed, respectively, that Quick pay has any influence on the growth of commercial banks in Kenya. 6.4% of the respondents were undecided about that view.

4.8 Customer centricity and growth of Commercial banks

On the influence of customer centricity on the growth of commercial banks in Kenya, the respondents used Yes and No structured questions as well as a five-point Likert scale to indicate the extent to which they agreed that customer centricity influenced growth of commercial banks in Kenya Ltd. Their responses were as summarized in Table 4.13and 4.14

Table 4.13: Effect of Customer centricity on growth of commercial banks in Kenya

Variable	Rating	Frequency	Percentage (%)
Does customer centricity affect growth of commercial banks in Kenya?	YES	41	100
	NO	0	0

Generally all the KCB Bank Kenya managers viewed customer centricity as a factor that influences the growth of commercial banks in Kenya. They cited that EQMS, Contact Centre, E-Statement, Core banking system-T24 were core bank systems and functions that increased customer satisfaction since they improved customer experience. Customer experience is enhanced through reducing turnaround times especially on queries or resolutions of customer complaints.

The respondents gave their opinions on the extent to which they felt customer centricity had an influence on growth of commercial banks in Kenya.

Table 4.14 Extent of effect of Customer Centricity factors on growth of commercial banks in Kenya.

Customer Centricity	1 Not at all (%)	2 Low (%)	3 Moderate (%)	4 High (%)	5 Very High (%)
EQMS	0.0	0.0	12.1	71.6	16.3
Contact Centre	0.0	2.8	18.4	55.3	23.4
E-Statement	1.4	2.1	6.4	22.7	67.4
Core banking system-T24	1.8	6.2	24.1	50.2	17.7

As it can be seen on Table 4.14, the largest number of respondents 71.6% felt that EQMS contributes to a high extent to the growth of commercial banks in Kenya with a further 16.3% feeling that the contribution of EQMS to the growth of KCB Bank Kenya ltd is to a very great extent. 12.1% were however, not undecided.

55.3% of the respondents felt that contact center had a positive impact on the growth of commercial banks. Although a small number 2.8% disagreed that contact center contributed to the growth of commercial banks banking industry. 18.4% of the respondents felt that it neither contributed to the growth. However, a good number of respondents 23.4 strongly agreed that contact center contributed largely to the growth of commercial banks.

Table 4.14 also indicates that 1.4% and 2.1% of the respondents strongly disagreed and disagreed respectively that KCB E-statement had no effect to the growth of commercial banks in Kenya. A majority of the respondents 67.4% strongly agreed E-statements contributes very highly to the growth of KCB Bank Kenya and a further 22.7% of the respondents agreed that it did contribute. However, 6.4% were undecided.

Majority of the respondents 50.2% agreed that Core banking system-T24 influenced the growth of commercial banks. Citing that the new core banking system had a larger capacity and thus it would be able to serve more clients at a time and reduce turnaround time. A further 17.1% strongly agreed that it affected growth of the banking industry. 24.1% neither felt that it contributed to the growth. A small number of KCB Bank Kenya managers that is 1.8% and 6.2% strongly disagreed and disagreed respectively citing that adopting new system had some challenges in terms of use and adjustment to it. They said that adoption of the new system largely affected customer accounts especially loan accounts where some were being debited twice per month and also some standing orders were not being actioned upon on time.

According to the KCB Bank managers the customer centricity tool such as EQMS, core banking system T24 E-statement and contact center positively affected customer experience. They asserted that customer experience was enhanced by making it easier for customers to retrieve commonly requested information at their own convenience anytime, anywhere and in any format without any extra charges. In fact it had reduced cost and time on the part of customers especially where they had to physically visit the branch.

CHAPTER FIVE
SUMMARY OF FINDINGS, DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The chapter summarizes the findings, conclusions and recommendations based on the study findings from the respondent's feelings and perceptions on ICT integration on growth of commercial banks in Kenya. The summary of findings captured frequencies and percentages of the indicators of ICT integration. Conclusions based on the ICT integration indicators and recommendations to banking management and also for future research are provided.

5.2 Summary of the Findings

The study had a response rate of 82.7%. The study also indicated that the majority of employees had worked with the KCB Bank for over 15 years represented by 26(63.4%). Those that had worked for between 10 to 15 years were 21.9% while 14.6% who were lowest had worked for a period between 5 to 10 years. Majority of employees were in the low management level 65.9% while 29.2% are at middle management levels. The least number of employees are at top management level at 4.9%.

According to study findings on the effect of digital marketing in the growth of commercial banks in Kenya, 53% of KCB Bank managers agreed that online marketing affected the growth of commercial banks. Majority of the respondents that is 49.6% agreed that social media platforms like YouTube. Twitter, Facebook and Instagram were mainly used by banks for marketing campaigns.

From the study findings on extent to which KCB Mobi accounts affects the growth of KCB bank Limited, majority of the respondents that is 42.5% agreed that it affected the growth of the banks. 59.9% agreed that KCB Mpesa affected growth of KCB bank in Kenya. On the SMS alerts, 42.3% agreed it affected growth of commercial banks.

According to the study findings on the extent to which KCB I bank affects growth of the banking industry. 48.2% agreed that it affects growth of the banking industry. 40.1% agreed that Quick pay affected the growth of the banking industry in Kenya.

From the study findings on how the respondents rated EQMS, contact center, e-statement and core banking system (T24) effect on the growth of KCB bank. 71% of the KCB Bank managers agreed that EQMS affected growth of banks in Kenya. 55.3% agreed that contact center was pivotal in the growth of banks and further 67.4 strongly agreeing that E- statement was a major driver for growth. 50.2% agreed that the core banking system (T24) had a significant contribution to the growth of KCB bank.

5.3 Discussions

In this section of research we discuss findings in relation to empirical literature. The study successfully investigated and analyzed the influence of ICT integration on commercial banks in Kenya. It looked at the effect of digital marketing, mobile banking, internet banking and customer centricity on the growth of commercial banks in Kenya. This study examined the effect of ICT integration on the growth of commercial banks in Kenya. As Tan and Teo (200) conclude, ICT integration has helped banks to present a potentially low cost alternative to brick and mortar branch banking. Luka and Ibinkule (2012) on the impact of ICTs on Banks, a case of Nigerian banking industry determined that ICT had a positive impact on the innovation productivity and sector value chain of banks .The study found that banks had integrated ICT in its operation as a way of improving services to the customers. Adoption of delivery mechanism such as internet banking, mobile banking and digital marketing have reduced the dependence on the branch network as a core delivery mechanism.

5.3.1 Digital Marketing and growth of Commercial banks

According to Garcia and Heal (2016) diffusion of digital technologies and the digitization of many products has transformed the global trade. Online market places have made it easier to match buyers and sellers of goods and services, from different countries. This digitization has lowered both marginal production costs and transaction costs associated with barriers of distance. From the study digital marketing has been found to have an effect on the growth of commercial banks. Banks have embraced digital marketing through online marketing and the social media platforms. 53% of the respondents agreed that online marketing has an effect on the growth of commercial banks. 49.6% agreed that social media platform positively affected the growth of banks in Kenya.

5.3.2 Mobile banking and growth of Commercial banks

The study found that mobile banking has a positive effect on the growth of commercial banks in Kenya. Through mobile banking ,KCB bank has been able to avail its services mainly to the unbanked population especially through KCB Mobi and KCB Mpesa accounts, these accounts have also decreased operation costs of banks and increased its revenue through transactions cost over the mobile. The results of the study showed that 42.5% and 59.9% of managers from KCB bank Kenya limited respectively agreed that KCB Mobi and KCB Mpesa accounts have increased tremendously since their launch in 2015. Echoing the same is Lee, Lee and Kim (2007) who opine that mobile banking has presented an opportunity for financial institutions to extend banking services to new customers thereby increasing their market share.

5.3.3 Internet banking and growth of Commercial banks

According to Nielsen (2002) innovating internet banking services is likely to foster banks' ability to retain profitable customers. The study findings on internet banking have shown that KCB I bank and Quick pay are pivotal in ensuring the growth of KCB as a commercial bank. The results are confirmed by Luka and Frank (2012) who postulate that internet banking has enabled bank customers to perform some common banking transactions like writing checks, paying bills, preparing payrolls, transferring funds, and inquiring about account balances. (Tan and Teo, 2000) echoes the same, they argue that internet banking has evolved into a one stop service and information unit that promises great benefits to both banks and consumers. In a study amongst customers of a large European retail bank, Boehm (2008) found that internet banking had a more significant connection with customer retention as compared to the traditional means of delivery.

5.3.4 Customer centricity and growth of commercial banks

The study revealed that EQMS affected growth of banking industry indicated by 71% of the respondents who agreed that it affected, 50.2% also agreed that core banking system T24 had a positive effect on the growth of banking industry and a further 55.3% agreeing that contact center was paramount since customers still needed to be in constant communication with their banks. 67.4% strongly agreed that E-statement positively affected growth of banking industry in Kenya. Geraldine (2013) opines that ICT has provided banks with the ability to offer worldwide services to customers in an easy and cost effective manner. The study shows that through EQMS, core banking system T24 and the E-statement platform, customers can today make online enquiry on account balances and status; they can request online for account statement and download the same. Customer centricity has been improved by ICT through EQMS, contact center and immediate e-mail communication with customers on any problem or request.

5.4 Conclusions

The main objective of the study was to determine the influence of ICT Integration on the growth of Banking Industry, KCB Bank Kenya Ltd was taken as the case subject. A total of 41 questionnaires were gathered and analyzed. Based on the results the study findings concluded that ICT integration plays a crucial role in the growth and development of banking industry in Kenya.

On digital marketing the study revealed that online marketing and social media platforms were mainly used by banks to increase its market share. The study also showed that mobile banking increased revenues and customer base of banks. This was done through increased registration of KCB Mobi and KCB Mpesa accounts. SMS alerts have also been found to be effective in customer retention as well as revenue generator for banks. Internet banking is also a growth driver in the Kenyan banking industry. The study has shown that KCB I-bank and Quick pay play an important role in delivering services such as payroll preparation, cash transfers and payment of bills. Internet banking has reduced cost and time in the part of customers by reducing the number of branch visits. It has however increased revenue through transaction cost via internet banking. Customer centricity has also been seen to play part in growth of banks in Kenya. This is because through enhanced customer experience, customer retention rate is increased as well as increase in new customers through referral. In summary ICT integration is today a key driver of the Kenya economy and therefore it plays a central role in enhancing customer experience through deliverables such as turnaround time, and reduction of transaction costs on the part of the bank and its customers.

5.5 Recommendations

Based on the findings and conclusions the researcher has recommended that;

i) The banks should invest more on information technology so as to enhance its productivity.

ii) Banks need to ensure internet banking is secure to its customers and that Internet service providers (ISP) have implemented firewall to protect the banks website from hacking.

iii) Banks are also to ensure that they are properly configured and institute procedure for continued monitoring and maintenance arrangements.

5.6 Suggestions for Further Studies

The research has suggested the following areas for further studies;

i) The study focused on the influence of ICT integration on growth of commercial banks in Kenya focusing only on one bank. Further studies should be done on all commercial banks to assess how technology adoption affects their operations.

ii) Further studies should be done to assess the impact of ICT integration in Micro finance institutions, insurance companies and Saccos.

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APPENDICES

Appendix 1: Introduction Letter

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Nairobi. (00100)

Dear Respondent,

I am an MA-Project Planning and Management student in the department of Extramural Studies in the University of Nairobi. I am carrying out a research on the "Influence of Information Communication Technology integration in the growth of commercial banks in Kenya; a case of Kenya Commercial Bank Ltd.".

The purpose of this questionnaire is to gather data on the subject in order to bring to the fore how adoption of ICT in commercial banks may offer solutions in the industry as well as improve on performance and best practice. You have been considered as an active player and hence selected as one of the respondents in this study. The information given will be treated confidentially and will be used strictly for academic purposes only.

Your cooperation will be highly appreciated.

Thank you in advance

Ronald O. Shiroya

L50/76060/2014

Appendix 2: Questionnaire

Please answer questions by putting a tick [√] in the appropriate box or by writing in the space provided.

PART 1: DEMOGRAPHIC INFORMATION

1. Gender:

   Male [ ]

   Female [ ]

2. Age:

   21-30 years. [ ]

   31-40 years. [ ]

   41 years and above [ ]

3. Highest Level of Education

   Diploma [ ]

   Degree [ ]

   Masters [ ]

   Others/ Specify [ ]

4. Duration of Working in the KCB Bank Kenya limited

   5 years and below [ ]

   5 to 10 Years [ ]

   10 years to 15 years [ ]

   Above 15 years [ ]

5. Respondent Category

   Top Management [ ]

   Middle Management [ ]

   Lower Management [ ]

PART 2: DIGITAL MARKETING AND GROWTH OF BANKING INDUSTRY

6. Does Digital Marketing affect growth of the commercial banks in Kenya?

   Yes [ ]

   No [ ]

   Please Explain

…………………………………………………………………………………………

…………………………………………………………………………………………

…………………………………………………………………………………………

7. Please indicate the extent to which you agree that Digital Marketing has influenced Growth in KCB. Using a Scale of 1-5, please indicate your agreement or disagreement level. 1-Strongly Disagree, 2-Disagree, 3-Neither Agree nor Disagree, 4-Agree, 5-Strongly Agree

Digital Marketing Channels	1	2	3	4	5
Online marketing					
Social media platforms-Twitter, Facebook, Instagram, You Tube					

Please give reasons for your answer

…………………………………………………………………………………………

…………………………………………………………………………………………

…………………………………………………………………………………………

PART 3: MOBILE BANKING

8. Does mobile banking affect growth of commercial banks in Kenya?

   Yes [ ]

   No [ ]

   Please Explain

   ……………………………………………………………………………………

   ……………………………………………………………………………………

9. Please indicate the extent to which you agree that Mobile banking technology has influenced Growth in KCB. Using a Scale of 1-5, please indicate your agreement or disagreement level. 1-Strongly Disagree, 2-Disagree, 3-Neither Agree nor Disagree, 4-Agree, 5-Strongly Agree

Mobile banking technology	1	2	3	4	5
KCB Mobi Accounts					
KCB Mpesa Accounts					
SMS alerts					

Please explain your answer

……………………………………………………………………………………

……………………………………………………………………………………

……………………………………………………………………………………

PART 4: INTERNET BANKING

10. Does Internet banking affect growth of commercial banks industry in Kenya

Yes [ ]

No [ ]

Please Explain

……………………………………………………………………………………

……………………………………………………………………………………

……………………………………………………………………………………

11. Please indicate the extent to which you agree that Internet banking technology has influenced Growth in KCB. Using a Scale of 1-5, please indicate your agreement or disagreement level. 1-Strongly Disagree, 2-Disagree, 3-Neither Agree nor Disagree, 4-Agree, 5-Strongly Agree

Internet banking strategy	1	2	3	4	5
KCB I-Bank					
Quick pay					

PART 5: CUSTOMER CENTRICITY

12. In your opinion, how has the adoption of ICT contributed to improvement in customer service in the following areas? Using a Scale of 1-5, please indicate your agreement or disagreement level. 1-Strongly Disagree, 2-Disagree, 3-Neither Agree nor Disagree, 4-Agree, 5-Strongly Agree

Customer Centric strategy	1	2	3	4	5
EQMS					
Contact Centre					
E-Statement					
Core banking system-T24					

Thank you for your cooperation

Appendix 3: Determining Sample Size

Table for determining sample size from a given population

Krejcie and Morgan Table

N	S	N	S	N	S
10	10	220	140	1,200	291
15	14	230	144	1,300	297
20	19	240	148	1,400	302
25	24	250	152	1,500	306
30	28	260	155	1,600	310
35	32	270	159	1,700	313
40	36	280	162	1,800	317
45	40	290	165	1,900	320
50	44	300	169	2,000	322
55	48	320	175	2,200	327
60	52	340	181	2,400	331
65	56	360	186	2,600	335
70	59	380	191	2,800	338
75	63	400	196	3,000	341
80	66	420	201	3,500	346
85	70	440	205	4,000	351
90	73	460	210	4,500	354
95	76	480	214	5,000	357
100	80	500	217	6,000	361
110	86	550	226	7,000	364
120	92	600	234	8,000	367
130	97	650	242	9,000	368
140	103	700	248	10,000	370
150	108	750	254	15,000	375
160	113	800	260	20,000	377
170	118	850	265	30,000	379
180	123	900	269	40,000	380
190	127	950	274	50,000	381
200	132	1,000	278	75,000	382
210	136	1,100	285	100,000	384

Note: N is population size; S is sample size

Appendix 4: List of Commercial Banks

1	African Banking Corporation Ltd
2	Bank of Africa Kenya Ltd
3	Bank of Baroda (K) Ltd
4	Bank of India
5	Barclays Bank of Kenya Ltd
6	CFC Stanbic Bank Ltd
7	Charterhouse Bank Ltd
8	Chase Bank(K)Ltd
9	Citibank N.A. Kenya
10	Commercial Bank of Africa Ltd
11	Consolidated Bank of Kenya Ltd
12	Co-operative Bank of Kenya Ltd
13	Credit Bank
14	Development Bank of Kenya Ltd
15	Diamond Trust Bank (K) Ltd
16	Dubai Bank Kenya Ltd
17	Eco Bank Kenya Ltd
18	Equatorial Commercial Bank Ltd
19	Equity Bank Ltd
20	Family Bank Ltd
21	Fidelity Commercial Bank Ltd
22	G.T Trust Bank
23	First Community Bank Ltd
24	Giro Commercial Bank Ltd

25	Guardian Bank Ltd
26	Gulf African Bank Ltd
27	Habib Bank A.G Zurich
28	Habib Bank Ltdg
29	Imperial Bank Ltd
30	I& M Bank Ltd
31	Jamii Bora Bank Ltd
32	Kenya Commercial Bank
33	K-Rep Bank Ltd
34	Middle East Bank (K)Ltd
35	National Bank of Kenya Ltd
36	NIC Bank Ltd
37	Oriental Commercial Bank Ltd
38	Paramount Universal Bank Ltd
39	Prime Bank Ltd
40	Standard Chartered Bank (K) Ltd
41	Trans- National Bank Ltd
42	UBA Kenya Bank Ltd
43	Victoria Commercial Bank Ltd