INFORMATION COMMUNICATION TECHNOLOGY AS A SOURCE OF COMPETITIVE ADVANTAGE AT KENYA COMMERCIAL BANK GROUP LIMITED

BY

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DECLARATION

I hereby declare that this is my original work and has not been submitted to any other academic body.

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This Research project has been submitted for examination with my approval as the Supervisor.

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DEDICATION

This research study is dedicated to the young children struggling with the day to day life challenges beyond their control in the quest for a better tomorrow. The world is all yours for the taking.

May God see you through your struggles.
ABSTRACT

Information Communication Technology and the Internet in particular can create a competitive advantage and improve performance and competitiveness. The Kenyan banking sector, over the years, has experienced stiff competition due to the homogeneity of products and services offered by the banks. As a result, banks have been forced to adopt and apply ICT towards enhancing financial service delivery aimed at satisfying customer needs and ensuring they retain their market share. Kenya Commercial Bank Group Limited has adopted ICT to a great extent focusing on mobile banking, internet banking and agency banking. The bank has developed new pre-paid debit card KCB MeCash to leverage on its huge investment in modern Information Technology infrastructure to enhance cashless payment solutions. The objective of the study was to determine how usage of ICT influences competitive advantage in KCB Group Limited. The research design for this study was a case study since the unit of analysis is one organization. Primary data was collected using interview guide. Content analysis was used to analyze collected qualitative data. The study concluded that ATM is a source of competitive advantage at KCB Group Limited as it helps the bank in replacing the heavy overhead bank branches, lowering cost of operation and lowering delivery cost of financial services to customers and increasing non funded incomes. It also leads to an increase in customer base and customer deposits which in turn results into earning of more interest and increases interest margin thereby influencing the achievement of competitive advantage in the bank. The study concluded that adoption of telephone banking at KCB Group Limited influence achieving of competitive advantage by improving convenience and expanding access to financial services. Telephone banking also ensures significant time saving, increases bank income level, and increases bank telephone deposits, increases remote bank branches and also leads to an increase in bank customer base. ICT adoption has assisted KCB Group Limited in delivering differentiated financial products and services such as mobile phone banking dubbed KCB Mobi and KCB Bankika. The bank has also ensured enhanced differentiation of products through development of new financial products for different groups of customers in the markets. The study recommends that commercial banks should adopt ICT such as ATMs as it contributes to achieving of competitive advantage through replacing of the heavy overhead bank branches, lowering of cost of operation, lowering cost of delivering financial services to customers ICT adoption has also resulted into an increase of non-funded income, lower cost of financial delivery, increase in bank sales, increase in customer base and customer deposits. The benefits realized through ICT adoption has led to the generation of more profits, increased interest margins and thereby influencing achievement of competitive advantage in the bank.
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<tr>
<td>ATMS</td>
<td>Automated Tellers Machines</td>
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<tr>
<td>ICT</td>
<td>Information Communication Technology</td>
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<td>OP</td>
<td>Operational Integration</td>
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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The business organizations of the 21st century, operate in complex and competitive environment characterized by changing conditions and highly unpredictable economic climate. Information and Communication Technology (ICT) is at the centre of this global change curve. In this information era successful enterprises has resulted to adoption of better Information Communication Technology strategy (Onchwari, 2010). The use of Information and Communication Technology concepts, techniques, policies and implementation strategies to companies services have become a subject of fundamental importance and concerns to all organizations (Laudon & Laudon, 2001). Laudon and Laudon, (1991) contend that managers cannot ignore Information Systems because they play a critical role in contemporary organisation. The application of Information and Communication Technology concepts, techniques, policies and implementation strategies to banking services have become a subject of fundamental importance and concerns to all banks and indeed a prerequisite for local and global competitiveness. It has continued to change the way banks and their corporate relationships are organized worldwide and the variety of innovative devices available to enhance the speed and quality of service delivery.

Usage of ICT has been influenced by resource capability in a firm. According to the resource-based theory, in order to develop a competitive advantage the firm must have resources and capabilities that are superior to those of its competitors (Avlonitis et al,
2001). Without this superiority, the competitors simply could replicate what the firm was doing and any advantage quickly would disappear. Resources are the firm-specific assets useful for creating a cost or differentiation advantage and that few competitors can acquire easily. Thompson & Strickland (1999) define a core competence as an area of specialized expertise that is the result of harmonizing complex streams of ICT and work activity. They further explain that a core competence has three characteristics: one it provides access to a wide variety of markets, secondly it increases perceived customer benefits and lastly, it is hard for a competitor to imitate

Application of ICT has changed the way banks and their corporate relationships are organized worldwide and the variety of innovative devices available to enhance the speed and quality of service delivery. Harold & Jeff (1995) stated that financial service providers should modify their traditional operating practices to remain viable in the 1990s and the decades that follow (Bessant & Francis, 1998). Large investments in complex ICT that increases firm’s efficiency can create barrier to entry in the market. ICT can be used to lower costs by reducing cost of business processes and reduce costs to customers and suppliers. It plays a major role in differentiation by creating new features that improve on a firm’s existing products and services thereby resulting in product unique features.

Financial institutions that overhaul the whole of their payment and delivery systems and apply ICT to their operations are likely to survive and prosper in the new millennium. For instance, banks re-examine their service and delivery systems in order to properly
position themselves within the framework of the dictates of the dynamism of Information and Communication Technology (Vinson and McVandon, 2008). With regards to the delivery of products, KCB Group Limited has increased use of Automated Tellers Machines (ATMs) and telephone banking, Internet and e-banking to improve on its financial service delivery. The bank has developed new pre-paid debit card KCB McCashKCB to leverage on its huge investment in modern Information and Communication Technology infrastructure to enhance cashless payment solutions.

1.1.1 The Concept of Strategy

Strategic decision-making involves thinking about the long-term course one will take through a broad competitive landscape. Mintzberg (1979) stated that strategy provides the direction for operations. Strategy is, simply, the art and science of options. It is a matter of understanding current options, creating new options, and choosing among them. The object of strategy is to bring about advantageous conditions within which action will occur. Strategy is a mediating force between the organisation and its environment.

Porter (1985) defines strategy as a central vehicle for achieving competitive advantage. While Chandler (1998) defines strategy as the determination of the basic, long term goals of an enterprise, and the adoption of courses of action and the allocation of resources necessary to carry out these goals” information production using computers, telecommunications, software and ancillary equipment such as automated.
1.1.2 Information and Communication Technology

Information Communication Technology (ICT) is the automation of processes, controls, and information production using computers, telecommunications, software and ancillary equipment such as automated teller machine and debit cards. It is a term that generally covers the harnessing of electronic technology for the information needs of a business at all levels. Communication is the conveyance or transmission of information from one point to another through a medium. Information Communication Technology (ICT) is the automation of processes, controls, and information production using computers, telecommunications, software and ancillary equipment such as automated teller machine and debit cards (Khalifa 2000). It is a term that generally covers the harnessing of electronic technology for the information needs of a business at all levels. Irechukwu (2000) lists some banking services that have been revolutionized through the use of ICT as including account opening, customer account mandate, and transaction processing and recording. Information and Communication Technology has provided self-service facilities (automated customer service machines) from where prospective customers can complete their account opening documents direct online (Laudon & Laudon; 2001).

The Information and Communication Technology (ICT) Strategy, therefore, defines the technical direction and framework for company’s technology based developments, services and risk management. The ICT Strategy embodies the principles and priorities set within an organization’s Strategic Plan and any other subsidiary strategies (Wendy, 2004).
The introduction of Information and Communication Technology has revolutionized service delivery systems as it enables customers to access a service through technological interfaces independent of service professionals' involvement thereby transforming interactions between service providers and customers. Businesses are increasingly deploying ICT at the organizational level to enhance its operations. Barua et al., (1995) indicate that the impact of ICT is positive on capacity utilization, inventory turnover, and product quality at the organization level. The following inter-related dimensions variables, which are aligned with those identified. Waring & Wainwright (2000) into the possible views of the nature of integration of systems and technology have been identified to measure the sophistication of ICT adoption and exploitation by organizations.

ICT has been technically integrated in the firm where the staff access internet and e-mail, increase in transaction speed, presence of a network and number of PCs on the network, availability of sufficient and appropriate applications, regularity and security of backups; evidence of valid anti-virus software and presence of a firewall (Meuter et al. 2000). This dimension examines the company's current ICT infrastructure and forces the organization to consider the importance of ICTs within their business operation. Firm uses ICT in enhancing Operational Integration (OI). This influence integration of ICT with internal business practices, for example evidence and use of Web site and relevance/effectiveness of the site to the overall business, ability to highlight most profitable part of the business, how stock management functions are controlled (Khalifa 2000).
Through Strategic Integration (SI) firm analyzed role of ICT in co-coordinating and managing business processes internally and externally. This dimension incorporates the composite requirements of levels of operational integration and inter-organizational integration primarily, in order to assess the role of ICTs within the strategic operations of the business and also their extended business network (Wendy, 2004). The most striking and powerful uses of IT today involve networks that surpass departmental boundaries and hence encompass crisscrossing management. These are automated areas of an organization shared by two or more departments. Recent growth in the use of these interdepartmental an inter-organizational system has contributed to increased productivity, flexibility, and competitiveness (Rikhardsson & Kæmmergaard, 2006).

1.1.3 Competitive Advantage

A company has a competitive advantage whenever it has an edge over its rivals in securing customer and defending against competitive forces (Thompson & Strickland, 2002). Sustainable competitive advantage is attained out of core competencies that yield the long term benefit to the company. Competitive advantage is also defined as the strategic advantage one business entity has over its rival entities within its competitive industry. Achieving competitive advantage strengthens and positions a business better within the business environment.

In attempting to achieve competitive advantage, firms aim to present an offering which competes effectively in the marketplace by providing consumers with a combination of added value and price which is deemed to be superior to other offerings in the market.
Value is added to the offering by effective differentiation. Mathur (1988, 1992) suggests that there are two main non-price dimensions along which an organization can differentiate its offering: merchandise and support. A company has a competitive advantage whenever it has an edge over its rivals in securing customer and defending against competitive forces (Thompson & Strickland, 2002). Sustainable competitive advantage is born out of core competencies that yield the long term benefit to the company. Prahalad & Hamel (1990) define a core competence as an area of specialized expertise that is the result of harmonizing complex streams of technology and work activity. They further explain that a core competence has three characteristics; one it provides access to a wide variety of markets, secondly it increases perceived customer benefits and lastly, it is hard for a competitor to imitate.

The intangible nature of financial services makes it difficult to envisage the use of specific services features as the basis for establishing a competitive advantage. Services cannot be patented, so service features generally can be copied with ease (Davison, Watkins & Wright, 1989). This leads to difficulty in trying to establish a lasting competitive advantage using service features (Bharadwaj et al., 1993). It has been suggested also that many financial services markets are not especially price-sensitive, particularly in their more complicated offerings. Recent legislative changes requiring disclosure of all charges and commission earnings for certain investment services may result in some consumers becoming more price-sensitive; however, it is unlikely that price will become the major focus of competitive strategy for financial services. It is suggested, therefore, that competitive advantage is more likely to be based on support
considerations, such as service quality or image and reputation factors, pertaining to the organization as a whole rather than any individual service offering (McGoldrick & Greenland, 1992). Service quality has been highlighted by, among others, Lewis (1993) as important in financial services markets.

1.1.4 The Banking industry in Kenya

The banking industry in Kenya is governed by the companies Act, the Banking Act, the Central Bank of Kenya Act and various prudential guidelines issued by the Central Bank of Kenya (CBK). The banking sector was liberalised in 1995 and exchange controls were lifted. The CBK, which falls under the Ministry of Finance, is responsible for formulating and implementing monetary policy and fostering the liquidity, solvency and proper functioning of the financial system (CBK, 2013).

Massive, rapid, technological innovations are replacing the traditional branch teller. With greater competition brought by deregulation, globalization and widespread mergers and acquisitions taking place in the banking sector, more branches are being closed down and replaced by self-serviced banking (SSB) facilities like the ATMs as part of a larger rationalization exercise. Even with the massive branch network, the use of phone banking and Internet banking is strongly promoted by the banks in addition to ATMs. The banking industry in Kenya has witnessed tremendous changes linked with the developments in ICT over the years. The quest for survival, global relevance, maintenance of existing market share and sustainable development has made exploitation
of the many advantages of ICT through the use of automated devices imperative in the industry.

1.1.5 Kenya Commercial Bank Group Limited

The history of KCB dates back to 1896 when its predecessor, the National Bank of India opened an outlet in Mombasa (KCB, 2013). Eight years later in 1904, the Bank extended its operations to Nairobi, which had become the Headquarters of the expanding railway line to Uganda. The next major change in the Bank’s history came in 1958. Grindlay’s Bank merged with the National Bank of India to form the National and Grindlay’s Bank. Upon independence the Government of Kenya acquired 60% shareholding in National & Grindlay’s Bank in an effort to bring banking closer to the majority of Kenyans.

KCB Group has the widest network of banking outlets comprising over 222 branches and over 400 automated teller machines in Kenya, Burundi, Rwanda, South Sudan, Tanzania and Uganda (KCB, 2013). KCB Group embarked on a restructuring process which the Board instituted early in 2011, with the aim of improving KCB Group Limited from a Good bank to a Great bank. ICT products in use in the banking industry include Automated Teller Machine, Smart Cards, Telephone Banking and MICR, Electronic Funds Transfer and Electronic Data Interchange. With the help of ICT adoption, Kenya Commercial Bank Group Limited is now providing their products and services in multiple countries in East Africa region and other part of the world seeking to gain competitive edge in the global market.
1.2 Research Problem

Firms operate in a dynamic business environment. A number of forces in the environment affect business in various ways and influence their competitiveness. These forces bring about uncertainty for organizations in their quest for success and survival. Firms, therefore, have to come up with strategies aimed at gaining competitive advantage and one of them is adoption of ICT to facilitate easier and faster acquisition and dissemination of information. (Sirirak, Islam & Khang, 2011).

For banks, new opportunities can be created by stretching and exploiting the capabilities either in ways competitors find difficult to match or to create quite new market opportunities or both. Stretching ICT capabilities has been the basis on which banks have sought to create new services to their customers (CBK, 2013). The Kenyan banking sector, over the years, has experienced stiff competition due to the homogeneity of products and services offered by the banks. As a result, banks have been forced to adopt and apply ICT towards enhancing financial service delivery aimed at satisfying customer needs and ensuring they retain their market share. Kenya Commercial Bank Group Limited has adopted ICT to a great extent focusing on mobile banking, internet banking and agency banking. The bank has developed new pre-paid debit card KCB MeCashKCB to leverage on its huge investment in modern Information Technology infrastructure to enhance cashless payment solutions. However, there is scarce evidence of systematic empirical investigations or studies focusing on establishing whether Information and Communication Technology adoption influence the achieving of competitive advantage in Kenya Commercial bank Group Limited.
ICT helps a firm to differentiate itself not only through price but also through product
innovation, shorter time access to market, and customer service (Bloch et al., 1996). ICT
adoption can help a firm provide customized products and services, thus enhancing its
differentiation advantage. Fruhling & Digman, (2000) carried out a study on impact of
ICT in achieving competitive advantage in Ghana and found that ICT technologies such
as Internet banking reduce the costs of obtaining, processing, transmitting information,
reduce the cost of marketing, advertising, and business operations, less expensive product
promotion, cheaper distribution channels, and direct savings effectively positioning bank
better than rival in the market. Mihalič & Buhalis (2013) investigated the effects of
Information and Communication technology (ICT) in achieving competitive advantage in
banking sectors and found that electronic banking, Usage of ATMs and telephone
banking directly increase the banking profitability, enhanced bank product
differentiation, improve quality of financial services making the bank achieve a
competitive edge over its competitors. Nzuki (2006) determine application of ICT in
commercial banks and found that Electronic Data Interchange (EDI), M-pesa, ATM, e-
mail and Visa card influence bank competitive advantage by increasing banks
operational efficiency, cutting costs and to meet the customer demands and
increasing switching costs to customers.

Various local studies have focussed on Information Communication Technology and
Competitive Advantage. For instance Letting (2005) carried out a study on establishing
the relationship between Information Communication Technology and competitive
advantage in vegetables and Animal Oils and Fats Manufacturers in Kenya. Vishall
(2006), sought to determine whether the application of ICT influence achievement of competitive advantage in firms listed in the Nairobi Stock Exchange (NSE). The study concluded that firms listed in NSE apply ICT in their core business processes and competitive strategies to gain competitive advantage. Mbigura (2011) carried out a study on the relationship between Information Communication Technology and competitive advantage of Commercial Banks in Kenya and found commercial banks that had adopted ICT had generally higher profit margins compared to rivals. However, the study failed to carried out an in-depth analysis of a particular bank to ascertain the extent to which the adoption of specific Information Communication Technologies have resulted to competitive advantage within the commercial banks. Onchwari (2010) carried out a study on the influence of Information Communication Technology on competitiveness of commercial Banks in Kenya and found that through ICT, banks have been able to compete effectively. Based on my research, there is no known study that has focused on competitive advantage and Information and Communication Technology in Kenya Commercial Bank Group Limited.

Despite KCB Group Limited outperforming its rivals in the market, and increasing its usage and investment in ICT, scholars have not sought to determine the extent to which adoption of ICT strategy adoption in the bank influence the achievement of competitive advantage.

This study therefore sought to fill this knowledge gap by investigating how Information and Communication Technology has influenced achieving competitive advantage in
Kenya Commercial Bank Group Limited. The study sought to answer the question; to what extent does Information Communication Technology strategy adoption influence the achievement of competitive advantage in Kenya Commercial Bank Group Limited?

1.3 Research Objective
The objective of this study was to determine how usage of ICT influences competitive advantage in KCB Group Limited.

1.4 Value of the Study
The study will be significant to management in KCB Group Limited and other banks which have adopted or are adopting or expanding their ICT framework. The findings will help banks in gaining insight on how ICT adoption influence achieving of competitive advantage and thus urge them to formulate strategies towards enhancing the application of ICT so as to achieve competitive advantage. It will also give an appreciation of the level of ICT integration into the organizations structures, especially at KCB Commercial Banks in Kenya.

The study will be important to policy makers who will gain insight on how commercial banks gain competitive advantage through use of ICT and develop the best policies to use in order to enhance ICT usage by commercial banks and other financial institutions. The academicians will get the basic information for further studies along the same line of study so as to bridge any gap. The study will also provide the input to the scholars in gaining knowledge on the extent to which Information Communication Technology has influenced achieving of competitive advantage in the banking industry.
CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

This chapter reviews both theoretical and empirical literature related to the study. The theories reviews are resource based theory and Innovation diffusion theory. The chapter also presents overview on ICT in banking industry and the relationship between ICT and competitive advantage.

2.2 Theoretical Foundation of the Study

A theory is a set of interrelated concepts, definitions and propositions that present a methodological view of a phenomenon by specifying relations among variables with the purpose of explaining and predicting the phenomenon. The study will be built on two different theories namely resource based theory and Innovation Diffusion Theory (Hernando & Nieto, 2007).

According to the resource-based view, in order to develop a competitive advantage the firm must have resources and capabilities that are superior to those of its competitors. Without this superiority, the competitors simply could replicate what the firm was doing and any advantage quickly would disappear (Betz, 1997). Resources are the firm-specific assets useful for creating a cost or differentiation advantage and that few competitors can acquire easily. The following are some examples of such resources which include patents and trademarks, proprietary know-how, installed customer base, reputation of the firm and brand equity (Canals, 1993). In a global market economy service companies must
identify the key resources that can possibly generate a competitive advantage. They should also explore how they can access and capitalize on those resources in order to improve their business performance and stay competitive in the marketplace. The relevance of resources varies according to industry, time and space and may also depend on external industry conditions (Keeton, 2001).

A pure competitive advantage with respect to an individual company is linked to main generic strategies and can take the form of either low-cost or differentiated products that are sold at premium prices as well as the form of focus or niche market strategy. A competitive advantage resource-based view looks at the company resources and on their impact on competitiveness (Barney 1991). Cost efficiency remains a necessary condition for the creation of profit; however, so-called non price or intangible factors are those that add most of the value to a product. Porter, (1985) explains that competitive advantage grows fundamentally out of the value a firm is able to create for its buyers that exceeds the firm’s cost of creating it. In this sense, value is what buyers are willing to pay, and superior value stems from offering lower prices than competitive price for equivalent benefits or providing unique benefits that more than offset a higher price (Breznik, 2012).

On the other hand, the perspective of Innovation Diffusion Theory (Rogers, 1983) has been embraced by a group of researchers. The behavioral intention and determinants of Innovation Diffusion are; relative advantages, compatibility, complexity, observability, and trial-ability. Wang (2003) studied adoption of Internet banking using TAM model and introduced a new construct ‘perceived credibility’ that reflects the user’s security and
privacy concerns in the acceptance of Internet banking (Casolaro & Gobbi, 2007). They found the significant influence of perceived ease of use, perceived usefulness and perceived credibility on the intention to use Internet banking.

The Innovation Diffusion Theory explains individuals’ intention to adopt a technology as a modality to perform a traditional activity. The theory is developed by (Roger’s, 1983). The critical factors that determine the adoption of an innovation at the general level are the following: relative advantage, compatibility, complexity, trialability and observability (Rogers, 1995). The nominalized factors are complexity, triability and observability.

Disruptive Innovation Theory; in the area of electronic retail banking there has been an ongoing dispute among academics regarding the disruptive nature of the new business models based on the Internet. In their book “The innovator’s solution, Christensen and Raynor state that Internet banking can only be deployed as a sustaining technology relative to the business model of retail banks” (Christensen & Raynor, 2003)

2.3 Strategy and Competitive Advantage

Ansoff (1967) stated that strategy is the common thread in an organization, giving direction and scope of an organization in the long run while Ansoff (1980) explained that strategy is the set of decision making rules for guiding organizational behavior. It is a management tool which offers important help for coping with business turbulence and challenges faced by organizations as well as public sector. According to Gerry, Kevan & Whittington (2006), strategies exist at a number of levels in organization namely corporate, business, functional and operating strategies.
Strategy is the means by which objectives are pursued and obtained over time. Porter (1980) stated that strategy is basically about competition and the means by which an organization tries to gain a competitive advantage. The only purpose of strategic planning is to empower an organization to efficiently gain a suitable competitive edge over its competitors which implies that corporate strategy is an attempt to change, in the most efficient way, company strength relative to that of its competitors.

According to Porter (1985), a competitive advantage exists when the firm is able to deliver the same benefits as competitors but at a lower cost (cost advantage), or deliver benefits that exceed those of competing products (differentiation advantage). Thus, a competitive advantage enables the firm to create superior value for its customers and superior profits for itself. Cost and differentiation advantages are known as positional advantages since they describe the firm's position in the industry as a leader in either cost or differentiation.

When a firm sustains profits that exceed the average for its industry, the firm is said to possess a competitive advantage over its rivals. The goal of much of business strategy is to achieve a sustainable competitive advantage. Porter (1985) identified two basic types of competitive advantage namely cost advantage and differentiation advantage.

2.4 ICT and Strategic Competitive Advantage in the Banking Sector

Automated Teller Machines (ATMs) combines a computer terminal, record-keeping system and cash vault in one unit, permitting customers to enter the bank’s book keeping system with a plastic card containing a Personal Identification Number (PIN) or by
punching a special code number into the computer terminal linked to the bank’s computerized records 24 hours a day (Stanley, 2006). Once access is gained, it offers several retail banking services to customers (Rose, 1999). They are mostly located outside of banks, and are also found at airports, malls, and places far away from the home of bank customers. When automated teller machines (ATMs) first became popular more than 20 years ago, banks and their customers gained clear advantages. Distribution costs fell dramatically as ATMs replaced overhead-heavy bank branches, while returns on investment grew rapidly as the cost of new machines was balanced easily by reductions in branch staff. Customers were happier, too, as money became conveniently accessible.

It contributes to the promotion and marketing of banking services which leads to an increase in volume of sales. With the aid of Information Communication Technology, funds are transferred from one account to another at the push of a button thus lowering the cost of bank transaction and increasing the bank returns over its rivals in the market. It lowers the cost of intermediation and aids in achieving higher returns for banks (Laudon & Laudon, 2001).

Telephone Banking is defined as a service provided by a bank or other financial institution that enables customers to perform financial transactions over the telephone, without the need to visit a bank branch or automated teller machine. Telephone banking is a form of remote banking, which is essentially the delivery of branch financial services through telecommunication devices (Mukherjee et. al, 2003). Telephone banking has led to improved convenience, expanded access and resulted into significant time saving on the part of the bank customers while accessing banking services. In the banks’
perspective, the costs of delivering telephone-based services are substantially lower than those of branch based services (Daniel, 1999). Telephone banking has enabled banks achieve competitive advantage over their competitors by delivering differentiated financial products. A good example of telephone banking is the mobile banking service which has been adopted by several commercial banks. Furst et. al, (2011) found that U.S. national banks that offered telephone transactional banking, resulted into higher non-interest income, lower transaction expenses by 21% and also achieved 45% in market shares.

Personal Computer Banking (PC-Banking) is a service which allows the bank’s customers to access information about their accounts through a proprietary network, usually with the help of preparatory software installed on their Personal Computer. Once access is gained, the customer can perform many retail banking functions. This encourages the growth of PC-banking which virtually establishes a branch in the customer’s home or office, and offers 24-hour service throughout the week (Gurau, 2002).

Internet Banking is a system that enables bank customers to access accounts and general information on bank products and services through a PC or other intelligent device or any banking activity held on Internet (Mathias & Sahut, 1999). Internet banking gives customers access to their bank accounts through a website (Nzuki, 2006). Internet banking offers more convenience, flexibility to customers and grants them absolute control over their banking activities. It is widely agreed that Internet Banking provides banks with a competitive advantage by improving the quality of customer service,
reducing the operational costs and thereby promoting cost leadership (Furst et al., 2000). Through Internet Banking, banks have reduced the costs of obtaining, processing and transmitting information. It has also led to reduced cost of marketing, advertising, and business operations resulting from less expensive product promotion, cheaper distribution channels, and direct savings resulting from reduced overhead expenses such as inventory, retail space, and personnel (Fruhling & Digman, 2000). GTBank through its online banking adoption reported enhanced bank productivity, speed and efficiency in service delivery and improvement in customer services. It also realized 25% increase in Market share and 11% increase in profits resulting from the ability to offer banking services at a lower cost.

Branch Networking of branches is a computerization and interconnection of geographically scattered bank branches into one unified system in the form of a Wide Area Network (WAN) for creating and sharing of merged customers’ information and records (Porter, 2008). It offers quicker rate of inter-branch transaction as distance barriers are eliminated. In Mexico, Wide Area Network (WAN) were adopted by commercial banks for creating and sharing of consolidated customer information/records, offering quicker rate of inter-branch transactions as the consequence of distance and time are eliminated thereby improving productivity per time period and reducing costs of operation (Grandon & Pearson, 2004).

Point of Sale (POS) is an on-line system that allows customers to transfer funds instantaneously from their bank accounts to merchant accounts. For example, when
making purchases, a debit card is used to initiate and activate the Electronic Fund Transfer Process (Chorafas, 1988). Regis-coping Machine or Image Machine permits a bank to automatically store the signatures and photograph of account holders. Increased banking productivity results from the use of Point of Sale to serve customers through the reduction of banking operational costs, increasing of non-funded incomes and volumes of seamless transactions thereby earning banks high profits and creating competitive advantage (Laudon & Laudon, 2001). Banks in Malaysia used point of sale systems to achieve continuous banking transactions thereby outperforming rivals in the market by 12.5% overall performance in financial year 2012. EFTPoS resulted into increased banking productivity results through increased customer shopping hours and prolonged transaction period (Laudon & Laudon, 2001).

Electronic Fund Transfer (EFT) is a system of transferring money from one bank account directly to another without any paper money changing hands (Vinson & McVandon, 2008). Transactions are processed by the bank through the Automated Clearing House (ACH) network, a secure transfer system of financial institutions. For payments, funds are transferred electronically from one bank account to the billing company’s bank, usually in less than a day after the scheduled payment date. The growing popularity of EFT for online bill payment is paving the way for a paperless universe (Tait, 2009). Adoption of Electronic Funds Transfer by 38% commercial bank in Singapore resulted in 25% increase in market share, 16% increase in customer base and 23% increase in profit margin after tax. The Electronic Funds Transfer presents more convenience, efficiency and security to banks customers and enhances operation efficiency.
CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the research design and methodology of the study. In this chapter, decisions are about how research was executed and how interviewees were approached, as well as when, where and how the research was completed. The chapter therefore entails research design, data collection method and data analysis.

3.2 Research Design

The research design for this study was a case study since the unit of analysis is one organization. The study was aimed at getting detailed information regarding the achieving competitive advantage through adoption of Information Communication Technology at KCB Group Limited.

According to Ngechu (2006), a case study allows an investigation to retain the holistic and meaningful characteristics of real life events. Kothari (2004) noted that a case study involves a careful and complete observation of social units. It is a method of study in depth rather than breadth and places more emphasis on the full analysis of a limited number of events or conditions and other interrelations.

3.3 Data Collection

The researcher used primary data. Primary data was collected using an interview guide. The interview guide contain open-ended questions to collect qualitative data. This was used in order to gain a better understanding and enable a better and more insightful
interpretation of the results from the study. The interview guide was made of two sections. The first part addressed the background of the respondent and the second section addressed the extent to which ICT strategy adoption influence the achievement of competitive advantage in KCB Group Limited.

The interview was administered face to face by the researcher to the finance manager, strategy manager, sales and marketing manager, Information Technology manager, operations manager, human resource manager, risk manager and product development manager, all working in KCB Group Limited thus making a total of 8 interviewees. These respondents were head of departments that interact directly or indirectly with ICT products and service within the bank, hence their suitability to respond to the interview questions.

3.4 Data Analysis
Content analysis was used to analyze collected qualitative data. Content analysis is a systematic detailed qualitative description of the objectives of the study. It involves observation and detailed description of objects, items or things that comprise the study (Mugenda & Mugenda, 2003). The researcher used the data to determine how KCB Group Limited achieves competitive advantage through adoption of ICT. This method made it possible to analyze and logically group the large qualitative data to achieve the study objectives. Ngechu (2006) defines content analysis as a technique for making references by systematically and objectively identifying specific characteristics of information and using the same approach to relate to trends.
CHAPTER FOUR
DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

This chapter presents the analysis and findings of the study. Primary data was gathered through interview guides. The qualitative data was then analyzed using content analysis. The purpose of the study was to establish the extent to which adoption ICT tools influence competitive advantage in KCB Group Limited. All the 8 heads of departments projected in the previous chapter took part in the interview guide, thus resulting into a 100% response rate.

4.2 Demographic Information

From the findings, two of the interviewees indicated that they were Information Technology managers, one indicated that he was an operations manager, two indicated that their position in the bank was that of human resource manager, one indicated that he held the position of risk manager and one indicated that he was serving as a product development manager at KCB Group Limited.

The study sought to investigate the number of years for which the interviewees had been working in their bank. With regard to experience in the company 6 of the interviewees indicated that they have been working in their current department in the bank for a period of more than 10 years, 2 of the interviewees indicated that they have been working in the bank for a period of 6-10 years. This implied that the interviewees were in a better position to offer relevant information on how ICT has been used by the bank to achieving
competitive advantage as they were responsible for strategic management in senior level management and had experience owing to their working period at the bank.

4.3 Competitive Advantage through ICT adoption

The following paragraphs discuss the Competitive Advantage through ICT adoption at KCB Group Limited.

The interviewees were requested to describe how ATMs had been used to achieve competitive advantage at KCB Group Limited. From the findings, the interviewees indicated that through the use of ATMs, the bank has been able to replace the heavy overhead bank branches which enabled the bank to experience low cost in its operations and also ensured low cost of delivery of financial services to its customers. The interviewees also indicated that ATM usage in the bank had increased non funded incomes by 7%, lowered cost of financial delivery such as, printing bank statements, cheque processing module, paying routine bills, fees, utilities, phone bills, social security, legal fees and taxes by 18%, thus leading to an increase in bank sales by 21% and an increase in customer based by 11%. The interviewees further indicated that use of ATMs has enabled the bank to increase in customer deposits which influence earning of more interest and thereby increasing interest margin. The study found that ATMs usage was also contributing to the ability of the bank to offer 24/7 financial services any time and conveniently to customers and as a result helping the bank to save time and in turn be able to serve a large number of customers. The study also found that KCB Group Limited used ATMs to enhance connectivity and improve bank’s interbank networks. The
respondents further indicated that the use of ATM has resulted into improved profitability level. The use of ATM has helped the bank in simplifying customer banking experience and lowering the costs of transactions, giving an example, electronic withdrawal of cash across the ATM has resulted into a 5% reduction of costs. This implied that the usage of ATMs had been a source of competitive advantage at KCB Group Limited. The finding concurred with Stanley (2006) who found that usage of ATMs influence achievement of competitive advantage in the commercial banks. This is because ATM usage results into reduced distribution costs, replaced overhead-heavy bank branches, increased returns on investment due to reduction of the cost of acquiring new machines, branches and bank branch staff, improved customer satisfaction, lowered the cost of bank transaction and increased the bank returns over its rivals in the market.

The study requested the interviewees to indicate how telephone banking had been used to create competitive advantage in KCB Group Limited. From the findings, the interviewees indicated that telephone banking has been used by KCB Group Limited in improving convenience in offering financial services, expanding access to financial services resulting into significant time saving. Telephone banking has also led to increased bank income level, increased bank telephone deposits, and improved accessibility of banking services to a great extent. The interviewees also indicated that through the use of telephone banking, the bank reduced the costs of delivering bank services, increased remote bank branches and led to increase in bank customer base by 6%. The interviewees revealed that Telephone banking has enabled the bank to deliver differentiated financial products and services such as mobile phone banking for example KCB Mobi banking and
KCB Bankika. This clearly indicated that Telephone banking has been used in creating competitive advantage at KCB Group Limited. The adoption of telephone banking has also led to improved convenience in the delivery of banking services, lowered cost of bank operations and hence helps in achieving competitive advantage in KCB Group Limited. The findings concurred with Furst et. al (2011) who found that mobile banking service adopted by several commercial banks in U.S. national banks resulted into higher non-interest income, lower transaction expenses by 21% and also ensured the banks achieved 45% of the market share.

The interviewees were asked to describe how the Personal Computer Banking has been used by KCB Group Limited to achieve competitive advantage. From the responses, the interviewees stated that with Personal Computer Banking clients use software such as quicken and quick books that are installed on the PC allowing them to manage the entire net worth in the bank. The interviewees also indicated that Use of Personal Computer Banking assisted the bank in ensuring its customers were in a position to pay utility bills, transfer funds from KCB Group Limited bank accounts, and track their investment accounts, loans and mortgages without having to visit the bank in person. The interviewees also indicated that Personal Computer Banking was also used to provide banking transaction services to clients conveniently for example, through electronic banking. It also allowed the consumers to view their account balances, request transfers between accounts and pay bills electronically from home thereby attracting more customers to the bank. This implied that Personal Computer Banking has led to competitive advantage at KCB Group Limited.
The interviewees were asked to describe how Internet Banking has been used by KCB Group Limited to achieve competitive advantage. From the responses, the interviewees were unanimous that Internet banking acted as a tool used to offer virtual banking functions at KCB Group Limited. The interviewees indicated that internet banking led to E-banking which has made it easy to transact and lowered the cost of transactions, either through internet, mobile applications or other electronic delivery channels.

The interviewees also indicated that Internet Banking had been used at KCB Group Limited to enabling customers have access to their bank accounts and to provide general information on bank products and services through a PC. The interviewees also indicated that KCB Group Limited through the adoption of Internet Banking has managed to enhance convenience and flexibility in offering financial services to its customers. The interviewees also noted that Internet Banking had an impact in the achievement of competitive advantage by improving the quality of customer service by 17%, reducing the operational costs and thereby promoting cost leadership in the bank. Through Online Banking, KCB Group Limited has reduced the costs of obtaining and processing financial services to its customers thereby increasing its market share by 16%. It also led to an increase in non-funded income and lowered the cost of transmitting information thus lowering the marketing and advertisement cost through the cheaper distribution channels such as Mobile phones and online banking. Internet banking also led to more savings by the bank resulting from reduced overhead expenses such as inventory, retail space and personnel.
The interviewee also indicated that KCB Group Limited was offering NETinfo’s internet banking as a product for the banking and financial market. NETteller e-banking offer a universal Multi Channel Banking System which consists of a powerful platform that is capable of administrating and managing all customer channels centrally. This clearly indicated that Internet banking had been used in achieving competitive advantage at KCB Group Limited. The findings were similar to Fruhling & Digman (2000) who found that GTBank adoption of internet banking, enhanced bank productivity, speed and efficiency in service delivery and led to an improvement in customer services, 25% increase in market share. GTBank through its online banking adoption reported enhanced bank productivity, speed and efficiency in service delivery and improvement in customer services.

The interviewees were asked to describe how the Branch Networking of branches has been used by KCB Group Limited to achieve strategic competitive advantage. From the responses, the interviewees indicated that Wide Area Network (WAN) adopted by the bank helped in creation and sharing of centralized customer information and records thus lowering cost, saving time and providing convenience in providing bank transaction services to its customers. The interviewees also indicated that the networking of bank branches assisted the bank in offering quicker rate of inter-branch transactions as it eliminates geographical distance barrier. This implied that use of branched Network System helps the bank in creating competitive advantage in the market. The findings were similar to Grandon & Pearson (2004) findings who indicated that use of Wide Area Network (WAN) by commercial banks in Mexico led to quicker rate of inter-branch
transactions, eliminated distance and time wastage thus improving productivity per time period and reducing costs of operation thereby influencing competitive advantage over the rival banks which had not embraced branch networking of branches.

The interviewees were asked to describe how the Point of Sale (POS) has been used by KCB Group Limited to achieve competitive advantage. From the responses, the interviewees noted that Point of Sale enabled bank to serve customers through the reduction of banking operational costs, increasing of non-funded incomes and volumes of seamless transactions thereby earning banks high profits and creating competitive advantage over its rival in the market. The interviewees also noted that Point of Sale adopted by KCB Group Limited led to increased number of bank customers, increased return on investment, improved efficiency in financial services delivery and improved financial performance of the banks. Banks were also able to make use of Electronic Funds Transfer through Point of Sale thereby increasing the banks’ productivity through increased customer shopping hours and prolonged transaction period. The finding concurred with Laudon & Laudon (2001) who found that EFTPo adopted by commercial banks in Malaysia improved banks’ financial performance and to a great extent, led to achieving of competitive advantage.

The study sought to establish whether Electronic Funds Transfer usage had influenced competitive advantage at KCB Group Limited by requesting the interviewees to describe how the Electronic Funds transfer has been used by KCB Group Limited to achieve strategic competitive advantage. From the findings, interviewees indicated that Electronic
Funds Transfer (EFT) such as automated cheque clearing and RTGS transfers had led to an increase in market share at KCB Group Limited by approximately 12%, led to an increase in customer base by 15% and consequently an increase in bank profit margin after tax by 4%. Through RTGS, the bank has been able to offer more convenience and efficiency in the delivery of financial services to its customers at an enhanced security level thus ensuring KCB Group Limited achieves competitive advantage over its rivals. The findings were similar to Tait (2009) who found that the growing popularity of Electronic Funds Transfer for online bill payment was paving the way for a paperless universe. Adoption of Electronic Funds Transfer by 38% commercial bank in Singapore resulted into an increase in market share, increase in customer base and increase in profit margin after tax and ensured convenience and efficiency in proving financial services as compared to rival banks in the market.

4.4 Discussion

The motivation for adoption of ICT such as ATM, Internet banking, Personal computer banking, online banking and use of Local Area Network (LAN) in banking institution had been heightened by the need to improve productivity per time period and reduce cost of operation. The bank has also been able to replace the heavy overhead bank branches thus enabling the bank to experience low cost in its operations, ensuring low cost of financial services delivery to its customers.

The study revealed that ATM usage in the bank had increased non funded incomes by 7%, lowered cost of financial delivery such as, printing bank statements, cheque processing module, paying routine bills, fees, utilities, phone bills, social security, legal
fees and taxes by 18%, thus leading to an increase in bank sales by 21% and an increase in customer based by 11%. The interviewees further indicated that use of ATMs has enabled the bank to increase in customer deposits which influence earning of more interest and thereby increasing interest margin. The study found that ATMs usage was also contributing to the ability of the bank to offer 24/7 financial services any time and conveniently to customers and as a result helping the bank to save time and in turn be able to serve a large number of customers. The study also found that KCB Group Limited used ATMs to enhance connectivity and improve bank’s interbank networks. The respondents further indicated that the use of ATM has resulted into improved profitability level. The use of ATM has helped the bank in simplifying customer banking experience and lowering the costs of transactions, giving an example, electronic withdrawal of cash across the ATM has resulted into a 5% reduction of costs. This implied that the usage of ATMs had been a source of competitive advantage at KCB Group Limited. The finding concurred with Stanley (2006) who found that usage of ATMs influence achievement of competitive advantage in the commercial banks. This is because ATM usage results into reduced distribution costs, replaced overhead-heavy bank branches, increased returns on investment due to reduction of the cost of acquiring new machines, branches and bank branch staff, improved customer satisfaction, lowered the cost of bank transaction and increased the bank returns over its rivals in the market.

The study found that telephone banking had been used to create competitive advantage in KCB Group Limited as it led to improved convenience in the access of financial services, expanded access to financial services thus resulting into significant time saving. Similar findings were revealed by Mukherjee et. al. (2003) who carried out a study among
Malaysia commercial banks and found that telephone banking led to improved convenience, expanded access and resulted into significant time saving on the part of the bank customers while accessing banking services. Telephone banking has also led to increased bank income level, increased bank telephone deposits, and to a great extent, improved the accessibility of banking services by the bank customers. The findings supported Furst et al. (2011) who found that telephone banking increased profitability level, increased non-interest income, lowered transaction expenses by 21% and also ensured the banks achieved 45% growth in market share in Commercial banks in U.S. national banks.

Through Personal Computer Banking, clients use software such as quicken and quick books that are installed on the PC thus allowing them to manage the entire net worth in the bank. The interviewees also indicated that Use of Personal Computer Banking assisted the bank in ensuring its customers were in a position to pay utility bills, transfer funds from KCB Group Limited bank accounts, and track their investment accounts, loans and mortgages without having to visit the bank in person. The interviewees also indicated that Personal Computer Banking was also used to provide banking transaction services to clients conveniently for example, through electronic banking. It also allowed the consumers to view their account balances, request transfers between accounts and pay bills electronically from home thereby attracting more customers to the bank. The finding were similar to Gurau (2002) who found that PC-banking influence competitive advantage in commercial banks as it establishes virtually branches in the customer’s home or office, and offers 24-hour service throughout the week.
The study revealed that internet banking led to E-banking which has made it easier to transact and lowered the cost of transactions, either through the use of internet, mobile applications or other electronic delivery channels. Nzuki (2006) on the other hand revealed that Internet banking adopted by commercial banks offered more convenience and flexibility to customers by granting them absolute control over their banking activities thus influencing the achievement of competitive advantage. KCB Group Limited through the adoption of Internet Banking also improved on convenience and flexibility in the delivery of financial services to its customers thus leading to the achievement of competitive advantage by improving the quality of customer service, reducing the operational costs thereby promoting cost leadership in the bank. Through Online Banking, KCB Group Limited have managed to reduce the cost of obtaining and processing financial services, increased its market share by 16%. It also led to an increase in non-funded income and lowered the cost of transmitting information thus lowering the marketing and advertisement cost through the cheaper distribution channels such as mobile phones and online banking. Internet banking also led to more savings by the bank resulting from reduced overhead expenses such as inventory, retail space and personnel.

The Branch Networking of branches such as Wide Area Network (WAN) adopted by the bank influenced creation and sharing of centralized customer information and records thus lowering cost, saving time and providing convenience in providing bank transaction services to its customers. This supported findings by Grandon & Pearson (2004) who revealed that use of Wide Area Network (WAN) by commercial banks in Mexico led to
quicker rate of inter-branch transactions, eliminated distance and time wastage thus improving productivity per time period and reducing costs of operation.

The study also found that the adoption of Point of sales at KCB Group Limited had led to increased number of bank customers, increased return on investment, improved efficiency in financial services delivery and improved financial performance at the banks. It also led to increased productivity, customer shopping hours at the bank hence resulting into the achievement of competitive advantage. The finding concurred with Laudon, and Laudon (2001) who found that EFTPo adopted by commercial banks in Malaysia improved banks’ financial performance and to a great extent, led to achieving of competitive advantage.

Adoption of Electronic Funds Transfer (EFT) such as automated cheque clearing and RTGS transfers had led to an increase in market share at KCB Group Limited by approximately 12%, an increase in customer base by 15% and consequently an increase in bank profit margin after tax by 4%. Through RTGS, the bank was able to offer more convenience and efficiency in the delivery of financial services to its customers at an enhanced security level thus ensuring KCB Group Limited achieves competitive advantage over its rivals. These findings supported Tait (2009) whose study revealed that Electronic Funds Transfer for online bill payment led to an increase in market share, increase in customer base and increase in profit margin after tax. It also ensured enhanced convenience and efficiency in the provision of financial services to customers in the Singapore banking sector.
CHAPTER FIVE
SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction
This chapter presents a summary of findings, conclusion and recommendations of the study.

5.2 Summary of the Findings
The study revealed that the use of ATMs enabled KCB Group Limited to replace the overhead heavy bank branches thus enabling the bank to experience low cost in its operation and also reduce the cost of delivering financial services to its customers. The findings revealed that use of ATMs in the bank had increased non funded incomes, lowered cost of financial delivery such as, printing bank statements, cheque processing module, paying routine bills, fees, utilities, legal fees and taxes by 18%. It has also led to an increase in bank sales, customer base and customer deposits which influence earning of more interest thereby increasing interest margin. The study established that ATM usage has played a key role in ensuring 24/7 availability of financial services and had ensured convenience and time saving to the customers. ATMs have helped the bank in simplifying customers’ banking experience and in lowering the costs of transactions thereby ensuring the bank achieves competitive advantage.

The study revealed that telephone banking usage at KCB Group Limited has improved convenience in the delivery of financial services, expanded access timelines for financial services. It has also resulted into significant time saving, increased bank income level,
increased bank deposits and led to improved accessibility of banking services to the customers. The study revealed that through the use of telephone banking, the bank reduced the costs of delivering banking services, increased remote bank branches and led to increased customers base and ensured the bank delivered differentiated financial products and services such as mobile banking. Telephone banking helps in lowering cost of bank operations and is a source of competitive advantage at the KCB Group Limited.

The study also established that the use of Personal Computer Banking enhanced bank financial services by offering services such as bill payments, funds transfer to own account and other bank accounts within KCB Group Limited, investment account tracking, loan request and payment. Personal Computer Banking was also found to create competitive advantage by ensuring convenience in the provision of banking services such as electronic banking, account balance, account transfers and bill payment which can be done at the comfort of the customer from home thus increasing the number of access of customers who are able to access financial services even without a physically visit to the bank. Personal Computer banking as such leads to competitive advantage in KCB Group Limited over their competitors.

The study found that Internet banking influence KCB Group Limited in offering virtual banking functions such as E-banking that eases and ensures lower cost of transactions, either through the use internet, mobile phones or other electronic delivery. Internet Banking adopted at KCB Group Limited enabled customers to access their bank accounts and general information on bank products and services through a PC. Through the use of
Internet banking, KCB Group Limited offered flexibility and convenience to its customers in the delivery of financial services. It also grants absolute control to the banks’ customers over their banking activities improves the quality of customer service, reduces the operational costs and thereby promoting cost leadership at KCB Group Limited. Online Banking was found to reduce the costs of obtaining and processing banking services, increase the market share and profit margin. It also results into an increase in non-funded income, reduced cost in the transmission of information to the markets and advertisement. This was found to reduce product promotion cost, attain cheaper distribution channels such as Mobile phones and online banking, lead to direct savings resulting from reduced overhead expenses such as inventory, retail space and personnel.

The study revealed that KCB Group Limited had also adopted Wide Area Network (WAN) which helps the bank in creation and sharing of central customers’ information and records thus lowering cost, saving time and ensuring convenience in the delivery of financial services to its customers. The adoption of WAN has also led to successful risk management, offered faster processing of inter-branch transaction due to the elimination of geographical distance thus creating competitive advantage in the market.

The study revealed that Point of Sale adopted by KCB Group Limited enabled the bank to reduce its operational costs, increase the level of non-funded incomes and ensure high volumes of seamless transactions thereby earning banks high profits thereby leading to competitive advantage over its rival in the market. The study established that Point of
Sale adoption by KCB Group Limited also led to an increase in number of bank customers and also led to improved performance and return on investment on financial services delivery by the bank. The EFTPo in the bank resulted into increased productivity through increased customer shopping hours and prolonged transaction period thereby increasing the banks’ financial performance thus ensuring the bank achieves competitive advantage.

The study found that Electronic Fund Transfer (EFT) such as automated cheques clearing and RTGS transfers led to increase in market share at KCB Group Limited, increase customer base and increase bank profit margin after. The study revealed that Through RTGS, that bank was offering financial services to customers more convenience, efficiency, enhanced security conditions and enhances operation efficiency influencing achieving of competitive advantage at KCB Group Limited.

5.3 Conclusion
The study concluded that the ATM is a major source of competitive advantage at KCB Group Limited as it helps the bank in replacing the heavy overhead bank branches, lowering of operation cost and the cost of financial services delivery to its customers. ATM adoption also resulted into an increase in non-funded incomes, increase in bank sales, an increase in customer base and consequently customer deposits. These accrued benefits resulted into increased interest margins thereby influencing the achievement of competitive advantage in the bank.
The study concluded that adoption of telephone banking at KCB Group Limited influence achieving of competitive advantage by improving convenience in offering financial services, expanding access to financial services, contributing to significant time saving, increasing bank income level, increasing bank telephone deposits and improving accessibility of banking services. Telephone banking usage also led to an increase in bank customer base and enabled the bank to deliver differentiated financial products and services such as mobile phone banking for example KCB Mobi and KCB Bankika.

The study concluded that Internet banking influence achieving of competitive advantage as it was found to offer a platform for the bank to offer virtual banking functions such as E-banking. The main advantages that are attributed to the adoption of internet banking by KCB Group Limited include; low cost of transactions, flexibility to the customers when accessing their bank accounts and general information on bank products and services through a PC, enhanced quality of customer service, reduced cost of operation and cost leadership advantage regarding the financial services offering to the banks’ clients. Telephone banking also led to a reduction in the costs of processing and obtaining banking services, increased profit margins and market share, increased level of non-funded income and lowered the marketing and advertisement costs as the bank is able to use cheaper distribution channels such as mobile phones, online banking. It also led to more savings resulting from reduced overhead expenses such as inventory, retail space and personnel.
The study concluded that Wide Area Network (WAN) also led to competitive advantage by making it easier to create data and share centralized customer information thus lowering the cost of operation, resulting into time saving and convenience when offering financial services and transactions to the banks’ customers. Adoption of the WAN technology also results into enhanced credit risk management, ensures quicker rate of inter-branch transaction due to the elimination of geographical distance barrier and as a result into the attainment of competitive advantage.

The study concluded that Point of Sale influenced achieving of competitive advantage at KCB Group Limited as it leads to reduced banking operational costs, increased level of non-funded income, increased return on investments and increased volumes of seamless transactions thereby earning the bank high profits and creating competitive advantage over the rival banks within the market.

The study also concluded that Electronic Fund Transfer (EFT) such as automated cheque clearing and RTGS transfers influence achieving of competitive advantage in the bank by ensuring increased market share for the bank and increased profit margin. The adoption of Electronic Funds Transfer also offers more flexibility and convenience to the banks’ customers during their quest to obtain financial services offered by the bank. This has in turn resulted into competitive advantage at KCB Group Limited.
5.4 Recommendation for Policy and Practice

The study recommends that commercial banks should adopt the ICT tools, and ATMs in particular as it influence achieving of competitive advantage through replacing the overhead heavy bank branches, lowering of operation cost and the cost of financial services delivery to the customers, increasing the non-funded incomes, bank sales, customer base and increasing customer deposits thereby increasing interest margin. The ATM therefore influences the achievement of competitive advantage in the bank.

The banks should adopt telephone banking so as to achieve competitive advantage. Telephone banking is key in improving convenience and access to financial services, ensuring significant time saving, increasing bank income level, increasing bank telephone deposits, improving accessibility of banking services, increasing remote bank branches. It results into an increase in bank customer base and enables banks to provide differentiated financial products and services such as mobile banking to its customers.

The study also recommends that commercial banks should adopt Internet banking as it influences the achievement of competitive advantage through easing and lowering cost of transactions, enabling customers to access their bank accounts and general information on bank products and services through a PC. Internet banking also ensures improved quality of customer service, reduced operational costs and promotes cost leadership in the bank through reduction in the costs of obtaining and processing customer requests. It also leads to increase hours of banking services, increased market share, increased profit levels due to an increase in non-funded income. It also lowers the cost of transmitting information to
the markets, leads to a reduction in marketing cost, enhances advertisement and promotion cost.

The study recommends that Wide Area Network (WAN) should be adopted to influence creation of competitive advantage by helping bank in creation and sharing of centralized customer information, lowering cost of operations and saving transaction time. It ensures convenience in the provision of banking transactions, enhances credit risk management, ensures quicker rate of inter-branch transaction processing resulting from the elimination of geographical barrier thus leading to competitive advantage.

The study recommends the adoption of Point of Sale as it results into competitive advantage. Point of Sale adoption leads to a reduction in the banks’ operation cost, increases non-funded incomes, increases the return on investment and also leads to increased volumes of seamless transactions thereby earning banks high profits and creating competitive advantage over its rival in the market.

The study recommends that banks should adopt Electronic Fund Transfer (EFT) such as automated cheque clearing and RTGS transfers towards achieving competitive advantage. Electronic Funds Transfer leads to an increase in market share, customer base and bank profit margin. It also provides for efficiency and enhances convenience in the delivery of financial service.
5.5 Limitations of the Study

The main limitation of the study was in the inability to include more commercial bank and other financial institutions as the case study focused on KCB Group Limited only. The study would have covered more institutions across all sectors so as to provide a more broad based analysis. However, resource constraints led to this limitation.

The study faced time constraint challenges during the collection of information from the interviewees thus limiting the study from collecting information particularly where the interviewees were not available due to their tight work schedule.

The study also faced a limitation from uncooperative employees who were not willing to provide adequate information due to the perceived sensitivity of the information required for the study. The researcher explained to the interviewees that the information they provided was to be held confidential and was for academic use only. This was also captured in the letter of introduction provided to the interviewee by the university administration.

5.6 Recommendation for Further Study

The study determined the influence of ICT in achieving competitive advantage at KCB Group Limited. A further study should also be carried out to determine the influence of ICT in achieving competitive advantage at other sectors such as manufacturing companies. A further study should also be carried out to determine the relationship between information technology strategies and competitiveness in banking sector.
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APPENDICES

Appendix 1: Interview Guide

Background of KCB Group Limited respondent

1. Indicate your position at KCB Group Limited?
2. Indicate the number of years in service at KCB Group Limited

Achieving of Competitive Advantage through adoption Information Communication Technology at KCB Group Limited

3. Describe how the following Information Communication Technology tools have been used by KCB Group Limited to achieve Strategic Competitive Advantage

   i. ATMs

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ii. **Telephone Banking**

 iii. **Personal Computer Banking**
iv. Internet Banking

v. Branch Networking of branches

vi. Point of Sale (POS)
vii. Electronic Funds transfer