ONLINE BANKING AND COMPETITIVE ADVANTAGE IN COMMERCIAL BANKS IN KENYA

By

ROSE WANJIRU NJUKI

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DECLARATION

This is my original work and has not been submitted for examination to any other academic body.

Sign: ___________________________________ Date _____________________________

ROSE WANJIRU NJUKI

D61/65374/2013

This research proposal has been submitted for examination with my approval as the supervisor

Sign: ___________________________________ Date _____________________________

Mr J.K. Lelei

Lecturer,

Department of Management Science,

School of Business,

University of Nairobi.

DEDICATION

This study is dedicated in loving memory of my father Richard Njuki and grandfather Octavious Kanyatta. These two great men believed in my abilities and gave me the best foundation which has propelled me this far.

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TABLE OF CONTENTS

LIST OF TABLES

LIST FIGURES

LIST OF ABBREVIATIONS/ACRONYMS

ASP Application service providers

ATM Automated Teller Machine

B2C Business-to-consumer

CBK Central Bank of Kenya

DOI Diffusion of Innovation

EFT Electronic Fund Transfer

FSD Financial Sector Deepening Kenya

GDP Growth Domestic Product

ICT Information and Communication Technology

IT Information technology

KCB Kenya Commercial Bank

SACCOs Savings and Credit Cooperative Societies

SPSS Statistical Programme for Social Sciences

ABSTRACT

This study aimed at establishing the relationship between online banking services and the competitive advantage of commercial banks in Kenya. The purpose of the study was to establish how the online services has led to competitive advantage in the Kenyan banking industry with the specific of the study being to determine the extent of online banking adoption in commercial banks in Kenya; establish the challenges of online banking in commercial banks in Kenya; and determine the relationship between online banking and competitive advantage of a bank. The study focused on the 43 commercial banks in Kenya. Data was collected through the use of questionnaires distributed to selected bank managers. The study found that there are currently a wide range of online banking services offered by commercial banks in Kenya. The study also found that majority of the banks in Kenya are currently offering this online banking services to ensure that they remain competitive and relevant in the market and also to share in the benefits of this competitive advantage. However, there are several challenges that the banks are facing in their endeavour to offer online banking to the customers. These challenges need to be mitigated in order for the banks to enjoy the full benefits of investing in internet banking. From the study, it can be concluded that in order for banks to remain relevant in the market, they have to ensure that they offer a variety of online banking services ranging from balance inquiry to customer care services. The study recommended that banks adopt and implement a continuous improvement strategy to win customers. They also come up with products and services which are highly unique. Policy makers should put into consideration online banking awareness creation when drafting policies on the operations of banks in Kenya in order to overcome the challenges faced.

CHAPTER ONE: INTRODUCTION

1.1. Background of Study

Information technology (IT) is increasingly becoming an invaluable and powerful tool driving development, supporting growth, promoting innovation, and enhancing competitiveness (Kamel, 2005). Information and Communication Technology (ICT) advancements, globalization, competition and changing social trends such as customer proactiveness and increased preferences for convenience have caused intense restructuring of the banking industry (Loonam & O'Loughlin, 2008). In light of the extensive use of information and communication technologies, the banking and financial services industry provided new systems and applications that maximize the use of modern technology that are now available (Qaddomi, 2008). Chou and Chou (2000) observe that, banking is an industry that is expected to undergo drastic change because of the E-commerce revolution.

The banking sector has been one of the first sectors that have adopted many electronic applications to improve performance and gain a competitive advantage strategy (Amboko & Wagoki, 2012).It was necessary for banks to change the concept of traditional banking services to remote banking services because of the rapid growth of electronic banking service by customers and increased competition among banks due to increased customer expectations (Joseph *et al*, 2005). Amboko and Wagoki (2012) further state that, in most developing countries, e-commerce adoption has been inhibited by the quality, availability and cost of accessing infrastructure. Despite this, electronic banking is used as a strategic tool by the global banking sector to attract and retain customers (Sharma, 2011), reduce costs and raise efficiency (Omari & Bataineh, 2012).

1.1.1. Online Banking

Online banking is a form of electronic banking offered via the Internet whereby, consumers can perform and transact financial services in a virtual environment (Bradley & Stewart, 2003). In essence, online banking is an electronic customer interface and an alternative channel of distribution which allows customers transact via the internet (Atanassov, Nanda, & Seru, 2007). Internet banking (e-banking) is the use of internet and telecommunication networks to deliver a wide range of value added products and services to bank customers (Steven, 2002).

Mohammed, *et al*. (2009) assert that, E-banking also called online banking uses the internet as the delivery channel by which to conduct banking activity, for example, transferring funds, paying bills, viewing account balances, paying mortgages and purchasing financial instruments and certificates of deposits. Kariuki (2014) states that, there are two major online banking models: the integrated approach (click and mortar) and the stand alone Internet banks, also known as "virtual" banks that have no physical branches or tellers whatsoever (Okiro & Ndungu, 2013). Online banking is the fastest growing area for businesses (Aladwani, 2001).

Online banking has numerous services such as online viewing of account details and statement information, payment of bills, transferring money between accounts, scheduling automatic periodic payments such as rent or loan payments, applying for accounts or loans and managing loyalty points (Kariuki, 2014; Sathye, 2007). Acharya and Kagan (2004) in their study found that, with the development of secured transaction technologies, more banks are using internet banking as a transactional as well as an informational medium. Users can now perform common banking transactions such as writing checks, paying bills, transferring funds, printing statements and checking account balances online. Sharma (2011) further asserts that, through internet banking, customers can view the accounts, get account statements, transfer funds, pay bills, obtain banking information and advice and purchase drafts.

In addition, Okiro and Ndungu (2013), cites online services as checking balance, online bill payments, downloading loan/account applications, using credit card online, seeking product and rate information, inter account transfer, interbank transfers, salary processing and customer care. In what can be described as Business-to-consumer (B2C) banks are also offering payment services on behalf of their customer who shop in different e-shops (Aduda & Kingoo, 2012). Despite the many services and applications offered by banks through online banking, many bank customers use this technology only for non-transactional activities, such as viewing account statements and balances, while bank managers want customers to use different aspects of online banking (Rotchanakitumunai & Speece, 2003). In addition, banks face disadvantages and challenges in order to make profit in spite of the benefits brought by online banking services (Nyaiyo, Okibo & Nyang'au, 2015).

However, there are several impediments that the commercial banks face in their quest to offer online banking to their customers. These could be classified as technological, managerial and business related (Magutu *et al*. 2011). Technological challenges are related to acquisition, installation and maintenance of the necessary hardware and software. Managerial challenges include people and organisational issues. On business challenges, the bank will lose the personalised service that it offered its customers. It may also find itself facing new kinds of legislations (de Souza & Von Wiese, 2000).

1.1.2 Competitive Advantage

Competitive advantage is defined as an advantage that a firm has over its competitors, allowing it to generate greater sales or margins and/or retain more customers than its competition. There can be many types of competitive advantages including the firm's cost structure, product offerings, distribution network and customer support (Kotler, 2000). A superiority gained by an organization when it can provide the same value as its competitors but at a lower price, or can charge higher prices by providing greater value through differentiation. Competitive advantage results from matching core competencies to the opportunities.

Competitive advantages give a company an edge over its rivals and an ability to generate greater value for the firm and its shareholders. The more sustainable the competitive advantage, the more difficult it is for competitors to neutralize the advantage (Barney, 2002). There are two main types of competitive advantages: comparative advantage and differential advantage. Comparative advantage, or cost advantage, is a firm's ability to produce a good or service at a lower cost than its competitors, which gives the firm the ability to sell its goods or services at a lower price than its competition or to generate a larger margin on sales. A differential advantage is created when a firm's products or services differ from its competitors and are seen as better than a competitor's products by customers. Porter (1985) in his release on generic competitive strategies describes the two basic types of competitive advantage a firm can possess as low cost or differentiation. This combined with the firm’s activities to achieve the competitive advantage leads to three generic strategies namely cost leadership, differentiation and focus.

Commercial banks in Kenya are trying to introduce internet based electronic banking systems to improve their operations and to reduce costs (Gumbo, 2010). Maholtra and Singh (2007) state that, e-banking is leading to a paradigm shift in marketing practices resulting in high performance in the banking industry. Banks have to introduce new products and services that have greater appeal to changing customer base in order to be competitive in the market place (Simpson, 2002; Brewer, 2001). Electronic banking services such as online banking could be one of the alternatives (Gupta & Collins, 1997). On the other hand, Christopher and Mike (2006) contend that, E-banking has become an important channel to sell products and services and is perceived to be a necessity in order to stay profitable. Bradley and Stewart (2003) were of a similar opinion when they observed that, online banking was considered a hygienic factor as opposed to a source of competitive advantage.

1.2 Banking Industry in Kenya

Banking industry in Kenya is governed by the Companies Act, the Banking Act, the Central Bank of Kenya Act and other various prudential guidelines issued by the Central Bank of Kenya (CBK, 2013).The banking sector was liberalized in 1995 and exchange controls lifted (Nyaiyo *et al.*, 2015). In comparison with other East African economies, Kenya's banking sector has for many years been credited for its size and diversification. Private credit to GDP, a standard indicator of financial development, was 23.7% in 2008, compared to a median of 12.3% for Sub-Saharan Africa. Based on the same indicator, Kenya is ahead of Tanzania which has 12.3% and Uganda with 7.2% (Beck, Demirguc-Kunt & Levine, 2009).

According to Financial Sector Deepening Kenya (FSD Kenya), the most recent data available indicates that only 19% of adult Kenyans have access to a formal, regulated financial institution while over a third have no access to even the most rudimentary form of informal financial service. This leaves a percentage of more than 80% outside the bracket of the reach of mainstream banking (Amboko & Wagoki, 2012).The banking industry comprised 43 commercial banks, 15 micro-finance institutions and 109 forex bureaus as at the end of

December 2013.The industry has over the years enjoyed exponential growth in deposits, assets, profitability and products offering mainly attributed to automation of services and branch network expansion both locally and regionally. This growth has brought about increasing competition among players and new entrants into the banking sector.

Banks play a central and critical role in economic growth and development. In 2007, the Government of Kenya published its long term vision referred to as 'Kenya's Vision 2030'. The provision of financial services is at the centre of the planned economic growth trajectory through the year 2030. The specific objectives are to improve the stability of the banking industry, enhance efficiency in the delivery of credit and other financial services and improve access to financial services and products for a larger number of Kenyan households. Kenya's financial industry is currently one of the fastest growing not only in East Africa, but in the continent.

The banking industry has remained largely profitable in spite of the economy performing poorly in some years and facing adverse effects of the global financial crisis in 2008. Profits have grown by close to 400% in a span of 13 years moving from 18.8Billion to 89.2Billion in 2011 making it the most profitable sector in the economy (Kamau & Were, 2013). They further assert that, the impressive performance can be attributed to the positive impact of reforms and technology development. Improved technology has enabled banks to process data and information faster and efficiently. In the same breath, technology has led to increasingly cashless society with rapid growth in use of plastic and mobile money.

Despite its growth in recent years, the banking sector remains volatile due to high levels of non-performing assets in the balance sheets. This has led to a slow-down in lending (Beck, 2009). There has also been failure to provide banking services to the bulk of the population.

In addition, financial services are expensive as evidenced by high interest rate spreads and account fees. The competition is inadequate because the industry is fragmented with many small banks serving specific niches but not contributing to the competition in the sector. Other challenges faced by the banking industry include high level of borrowing by government at the expense of the private sector, inadequate risk management mechanisms and information technology risks. There has also been increased competition from SACCOs, micro finance institutions and mobile service providers who are now offering mobile money transfers such as M-pesa and Airtel money.

1.3. Research Problem

Enhancing ICT in the banking industry is a must in a rapidly changing market place, as its revolution has set the stage for exceptional increase in financial activity across the globe (Aliyu & Tasmin, 2012). The Internet is the cheapest distribution channel for standardized bank operations such as account management and funds transfer (Polasik & Wisniewski, 2009). It offers a potential competitive advantage for banks and this advantage lie in the areas of cost reduction and more satisfaction of customer needs (Bradley & Stewart, 2003; Jaruwachirathanakul & Fink, 2005). There is no doubt that the trend of online banking development cannot be halted and is becoming the new hot spot for banks' marketing and competitive strategy (Zhao, 2010).

Goh and Kauffman (2013) in a study on firm strategy and the internet in U.S commercial banking observed that, as information technology becomes more accessible, sustaining any competitive advantage from it becomes challenging. They further noted that, IT may be strategically important, not because it gives you strategic advantage but because failing to attend to it results in strategic disadvantage. They contended that, a firm's investment in IT achieves strategic advantage if it brings about better than normal returns. Competitors should not be able to duplicate the investment quickly and achieve the same effects.

In another research, Omari and Bataineh (2012) carried out a study on the impact of e-banking on achieving competitive advantage for banks in Jordan. They concluded that, there was a statistically significant effect for the electronic banking over the internet in achieving competitive advantage in the banking sector in Jordan. In addition, Malhotra and Singh (2009) sought to assess the Indian experience on the impact of internet banking on bank performance and risk. The results revealed that, internet banks are larger banks and have better operating efficiency ratios and profitability as compared to non-internet banks. It was further revealed that, the profitability and offering of internet banking does not have any significant association. However, on the other hand, internet banking has a significant and negative association with risk profile of the banks. These studies were carried out in other countries and focused on strategy, risk and bank performance in relation to internet banking. There was therefore a need to carry out a local study focusing on competitive advantage and internet banking.

Banking sector in Kenya has been substantially influenced by advancement in technology, more so the Internet (FSD, Kenya). Nyaiyo, Okibo and Nyang'au (2015) examined the effects of digital banking on competitiveness among commercial banks in Kenya and more specifically in Kisii town. It was found that, digital banking had effects on competitiveness among commercial banks; it had attracted and retained many customers giving the bank a competitive edge within the industry. They asserted that, banks benefit from low operating costs through less staff and less physical branches. However, Gakure and Ngumi (2013) study to investigate whether innovations influence profitability of commercial banks in Kenya had a different conclusion. The conclusion was that, bank innovations have a moderate influence on profitability of commercial banks in Kenya. As far as internet banking is concerned, the study demonstrated that there was less agreement on the assertion that internet banking has a positive influence on bank's profitability.

Kombe and Wafula (2015) study on the effects of internet banking on the financial performance of commercial banks in Kenya, a case of KCB had a contradictory opinion. The research revealed that, the impact of the ICT adoption on the performance of banking sector mainly refers to time reductions and quality improvements rather than cost reductions as reported by many authorsThey posited that, internet lowers transaction costs, it enables extension of client base and it can lead to distinctive competence and enhanced control of banking activities.

In view of the studies discussed above, online banking and competitive advantage has to a small extent been researched in the past. Most of the past studies have examined the effect of online banking on bank's performance and profitability. In most of these studies, there has also been mixed results obtained from the research. Kenya has and still faces explosive digital revolution in the banking industry and is not clear to what extent it affects competitiveness within the industry (CBK, 2008). It is because of these reasons that this study arose and seeks to address the following questions: what is the extent of online banking application by customers? What are the challenges faced by commercial banks in offering online banking? What is the relationship between online banking services and competitive advantage in commercial banks in Kenya?

1.4. Research Objectives

The main objective of this study was to assess online banking adoption, challenges and competitive advantage in commercial banks in Kenya.

The specific objectives of this study were to:-

i. Determine the extent of online banking adoption in commercial banks in Kenya
ii. Establish the challenges of online banking in commercial banks in Kenya
iii. Determine the relationship between online banking application and competitive advantage of a bank

1.5. Value of the Study

The study shall be of great importance to the banks that have invested in online banking especially when analysing the contribution this has brought to their competitiveness. Managers in these institutions will be able to come up with informed decisions on how they can utilize online banking in order to stand out. It is also a resourceful guide to other banks and financial institutions that have not enrolled to online banking and have plans underway of doing so.

Other companies especially in the service industry will find the study beneficial especially when it comes to making decisions on what factors to consider before offering their services online and more so in mitigating the challenges in order to gain a competitive edge.

CBK as the regulator of the commercial banks in Kenya will find the study beneficial by understanding the challenges faced by the industry as far as legislation, compliance and online banking is concerned. They can therefore come up with policies and framework which will guide banks in delivery of services using the new technology.

The government, being the key agent of mobilising resources will be able to understand how best they can support the banking industry in order to be able to reach the unbanked citizens through the new delivery channel. They are also able to come up with policies which enhance a healthy competitive environment in the banking industry especially with the new technologies.

The study shall also add into the body of knowledge of scholars and be a foundation upon which academicians can base their future related studies on.

CHAPTER TWO: LITERATURE REVIEW

2.1. Introduction

This chapter reviews theories upon which the study has been founded on. The extent of online banking services, challenges of online banking and the contribution of online banking to the competitive advantage of banks is discussed in details.

2.2. Theoretical Review

This study shall be guided by the diffusion of innovation theory and the porter's five forces theory. The theories are discussed below.

2.2.1. Diffusion of Innovation Theory

Diffusion of Innovation (DOI) theory is a popular model used in information systems research to explain user adoption of new technologies. This model, developed by Everett Roger's, has contributed to a greater understanding of behavioural change, including the variation in rates of adoption of innovations in this case online banking. The factors he identified are relative advantage of the innovation over current products and methods, compatibility of the innovation with existing modes and customer values, trialability, observability and complexity of the innovation, and the perceived risk associated with the innovation (Rogers, 1995).

This, in the banking industry context means that, customers will adopt online banking if it offers them an advantage over the other modes of banking such as banking at the branch, mobile banking, agency banking or any other electronic delivery of service. For instance, in comparison with branch banking, online banking is faster because there are no queues and is available round the clock. Online banking is more enhanced when compared to mobile banking because it offers more services and products through the internet. Customers therefore will opt to adopt and use this technology because they perceive it to be beneficial.

While the characteristics of the innovation influence its diffusion, so too do the aspirations of the organisations. These include achievement of competitive advantage, reducing costs and protecting an organization’s strategic position. The organizational diffusion of online banking is promoted by the organization’s desire to become superior in meeting customer’s needs, produce a competitive product or develop superior competencies within their organization (Aohne & Davies, 2000). When adoption of an innovation yields competitive advantage, organisations will adopt and diffusion will be driven by this pursuit of competitive advantage. However, as the innovation becomes widely adopted, the competitive advantage diminishes and the innovation becomes a necessary competitive requirement.

2.2.2. Porter’s Five Forces Theory

Michael Porter's famous Five Forces of Competitive Position model provides a simple perspective for assessing and analysing the competitive strength and position of a corporation or business organization. Porter’s (2001) five forces are, existing competitive rivalry between suppliers, threat of new market entrants, bargaining power of buyers and power of suppliers, threat of substitute products (including technology change).

According to Smith (2006) strategically, the use of the Internet is lowering entry costs and removing barriers to entry for many businesses. The lowering of barriers has led to a flood of banks entering the industry, ultimately increasing competition and providing increased value to potential customers. In addition, commercial banks in Kenya are also facing great competition from mobile service providers through their money transfers especially M-pesa and Airtel Money. SACCOs and micro finance institutions have also taken advantage of the bank's limited distribution network in order to reach the unbanked Kenyans. Smith (2006) further states that, online banking consumers are relatively weak in terms of buyer power because the online aspect is still mainly an ancillary product. People dissatisfied with their online services cannot easily switch to another bank. They will have to physically close the old account and open a new one at another bank. This takes time and is inconvenient.

Porter (2001) state that, despite a potential shortfall, competition for market share remains fierce within the online banking industry. Consumers today are more knowledgeable than ever and are consequently demanding more from their bank in both services and products. Therefore, the future success of financial institutions will depend on how well they understand the market drivers and the threats to position themselves best to adapt to the new Internet age.

2.3. Empirical Review

This focuses on the extent of online banking services, challenges faced by commercial banks in application of online banking services and relating online banking with competitive advantage.

2.3.1. The Extent of Online Banking Services

Bradley and Stewart (2003) in their study on diffusion of online banking predicted that, 84.12% of retail banks globally would have adopted online banking by 2011.This represents near universal adoption. Non-adoption by the retail banking industry will be rare. This would suggest that online banking is (or soon will be) a basic requirement of operation, rather than a source of sustainable competitive advantage. Rotchanakitumunai and Speece (2003) noted that, many bank customers use online banking technology only for non-transactional activities, such as viewing account statements and balances, while bank managers want customers to use different aspects of online banking. Lim, Yeow and Yuen (2010) further asserts that, despite investments made by banks in developing online banking services to facilitate customers as well as to save costs, adoption rate of online banking in general fall short of expectations. Banks that offer online banking services are still considered limited in Africa when compared to Europe or the US, yet a few pioneers have emerged, notably in South-Africa, Nigeria, Zambia, Algeria, Kenya among others (Sathye, 1999; Hamlet and Strube, 2000; Howcroft *et al*., 2002; Ndubisi *et al*.2004).There is very low usage of internet banking among developing countries, Kenya included as noted by a research by Khatib (2013) on internet banking and its adoption in the Arab world.

However, on the other hand, Gikandi and Bloor (2010) study revealed that, the number of banks offering electronic banking in Kenya has risen steadily since the service was first launched in 1996 by Barclays Bank. Iresearch (2011) shows that, online banking users were 260 Million in 2010 increasing by 34.7% year on year. It further shows that the total transaction amount of personal internet banking was 96.5 trillion Yuan in 2010, with grow that 80.6% year-on-year. The year-on-year growth rate remains stable from 2007 to 2014.It is expected that online banking will enter into the development of a mature stage that will keep stable of increasing year-on-year rate. Aladwani (2001) observed that, 50% of the banks offered online banking services while the rest had a system under development while Okibo (2014) in his study on effects of E-banking on growth of customer base in Kenyan banks found that, 70% of the customers in Kenyan banks have not been reached by e-banking.

Njuguna, Ritho and Olweny (2012) found that, there is a significant growth of internet users in Kenya but the number of financial transactions carried out over the Internet remains very low. They add that, the trend is the same globally as it has been observed that potential users either do not adopt internet banking or do not use it continually after adoption. According to Brown (2001), out of 61% online users, only 20% of consumers carry out online banking in the USA.

Okiro and Ndung'u (2013), in their quest to determine the extent of use of internet banking in financial institutions, 63.3% of the respondents indicated that, there was a high customer turnout level. This implies that there is potential for growth of internet banking in the future. The study found that, the most prevalent internet banking service was balance inquiry and the least was online bill payment. The study also revealed that, commercial banks had the highest usage of internet banking at 43.3% as compared to SACCOs and microfinance institutions. Similarly, Waithaka and Nzeveka (2015) showed that, the use of internet banking as a channel for accessing banking services was underutilized with most of the customers using it for balance and statement enquiry and rarely for other transactions such as ordering cheque books, stop cheque, bills payment *et al*. Since its introduction in mid-2005, the adoption of internet banking has been slow due to impaired unavailability of infrastructure and lack of supportive legislation for internet banking (Nyangosi *et al*, 2009).

In Kenya, there is steady increase in use of automated teller machine (ATM), mobile and Internet (online) banking. However, the use of internet banking as a channel for accessing banking services is only average (Muranguri, 2013). Podder (2005) was of a similar opinion when he found out that the number of transactions carried out through the internet banking channel remained low in developing and undeveloped countries. According to Podder (2005), there is still room for banks to encourage uptake of the service by customers. Bichanga (2014) noted that, 70% of the customers have not been reached by E-banking. He observed that, there was need for the banks to be concerned with the population unreached by E-banking.

2.3.2. The Challenges of Online Banking

Factors that are working against adoption of online banking are: bank's perception that the internet does not offer enhanced ability to deal with customers, bank's resistance to change, existing legacy systems, lack of required resources to adopt and security concerns (Bradley & Stewart, 2003). Vadlamani (2008) asserts that, steep rise in online banking crimes may undermine its success. The security of information on the internet is the primary factor, which determines the adoption of Internet banking technology (Ramakrishna, 2007).According to Gikandi and Bloor (2010), there are constraints related to social and infrastructure issues that must be taken into account when evaluating the development of online banking which are telecommunications infrastructure deficiency and low Internet penetration in the region. Aladwani (2001) cites trust as a future challenge for banks especially in internet banking. Majority of the customers hesitate to use internet banking services because of security and privacy issues (Lee & Turban, 2001).

Another challenge is that central banks operate monetary policy efficiently only in the short term and after sometime, when new instruments are introduced to the market, new challenges emerge which disrupt the conduct of monetary policy. Moreover, new developments in the financial system also require new regulations to ensure the effectiveness of monetary policy is not compromised (Iris and Grimes, 2003). Financial innovation and change in monetary procedures and control follow each other and Central banks have therefore to change their tools, targets and operating procedures from time to time so as to cope with innovation and ensure the sustainability of the financial system (Misati, *et al*, 2010).

Technological advancements take a large share of bank resources thus there is a need to manage costs and risks associated with internet banking (Okiro & Ndung'u, 2013). According to Soludo, (2005) one security challenge results from "cutting out the middleman," that too often cuts out the information security the middleman provides. Another is the expansion of the user community from a small group of known, vetted users accessing data from the intranet, to thousands of users accessing data from the Internet. Application service providers (ASP) and exchanges offer especially stringent and sometimes contradictory requirements of per user and per customer security, while allowing secure data sharing among communities of interest (Aduda & Kingoo, 2012).

Training and Manpower development is another major problem mitigating against the growth of e-commerce in the country. Government must make right IT policy by ensuring that Computer, Communication equipments and other IT infrastructures to a large extent are manufactured in the country so that our people can acquire first hand necessary skills (Aduda & King'oo, 2012). Nyaiyo *et al*. (2015) lists challenges that comes with online banking as lack of security, lack of personalised service, lack of proper legislation governing digital transactions, functionality, dynamism of customer needs and innovation. Waterfield (2004) observes that, computer illiteracy among majority of the population is still significantly high especially in Africa. In addition, poor and/or lack of technological infrastructure and reliable power supply, lack of proper legislation governing e-transactions, preference to paper money, as opposed to "virtual" cash in transactions are other challenges of online banking.

The decrease of cross-selling opportunities is another concern for virtual banking (Talmor, 2005). At a branch, tellers and bank staff can cross-sell other services to customers through face-to-face interaction. With the introduction of virtual banking, customers can now perform transactions by themselves. Consequently, bank staffs do not interact with customers and the chance of cross-selling is thus reduced. Users are also now able to choose the service providers freely if their requirements are not met, given that switching cost is becoming lower because of online banking service offering. As such, it is really a challenge for bank providers to deal with immediately, otherwise the original customers would be lost. Gurau (2002) cited a number of challenges that hinder implementation of information technology in the banking sector in the context of developing nations. This include (but not limited to) lack of stability of the legislation, weak financial sector, poor technological infrastructure, and relatively small Internet and computer penetration. Akpan (2003) asserts that, low penetration level of ICT in many developing countries hinders efforts to harness the technologies for development.

Online banking challenges could be classified as technological, managerial and business related (Magutu *et al*. 2011). Technological challenges are related to acquisition, installation and maintenance of the necessary hardware and software. Other issues are security concern and the website design in terms of ease of use (Koved *et al*. 2001). Online system also requires great expenditure in monetary terms for acquiring the hardware and software, both initial and maintenance (Rahul, Biju & Abraham, 2001).

Managerial challenges include people and organisational issues. People in the organisation may resist adoption of a new technology as they may fear change or that it would lead to loss of jobs (Magutu *et al*. 2011). Online banking may also require restructuring the organisation and this may be a challenge in itself (Feeny, 2000). He further asserts that, there is also lack of support from the senior management which means that the system will lack the necessary resources and is thus bound to fail.On business challenges, the bank will lose the personalised service that it offered its customers. Consequently, customer loyalty may be reduced or entirely lost (Lee, 2001). In addition, customers may stick to the old habits and refuse to adapt to the new technology making it under-utilized (Shwartz, 1999). The organisation may also find itself facing new kinds of legislations which are continually being enacted by the governing bodies (de Souza & Von Wiese, 2000).

2.3.3. Online Banking and Competitive Advantage

Easing of international trade barriers, economic liberalization, globalization, and deregulation have led to several challenges for organizations in developing and newly industrializing economies (Kannabiran & Narayan, 2005). To effectively respond to the rapid changes in the external environment, several firms have turned to information technology (IT) to improve their productivity and competitiveness. Aladwani (2001) in his study on drivers, challenges and expectations of online banking observed that, an organisation seeks to adopt advanced technologies in order to react to external and internal pressures. He further cited examples of external pressures as creating new opportunities through engineering an organisation’s basic retail banking delivery activities in order to serve its external customers better. The inside demand forces included reduction of running costs and improvement of administrative forces.

Chou and Chou (2000) discussed three opportunities provided by the internet in a guide to the internet revolution in banking. It establishes a direct link to customers, it lets companies bypass others in the value chain and it delivers new products and services for new customers. They further stated that, internet banking emphasizes the generation and exploitation of new business opportunities for the banking industry. This results in more effective performance, greater economic efficiency and more rapid exchange among financial markets. In addition, customers’ trends and habits are changing since the development of IT and are becoming careful about their personal finances. They concluded that, electronic delivery of services will be a key means of achieving these new customer markets.

In a study examining the impact of online banking intensity on the financial performance of community banks in Midwest and Texas, USA, Acharya, Kagan and Lingam (2008) posited that, online banking improves the financial performance of banks. Aburub (2015) carried out a separate study to investigate the effects of web-based applications on competitive advantage in banking sector in Jordan. According to this research, web-based applications included simple transactions such as checking balance online to complex processes such as supply chain management. The results revealed that, the impact is quite significant. Of a similar opinion was Chavan in a study on benefits and challenges of internet banking in an emerging economy. This was carried out in India and the primary source of information was secondary data. The conclusion drawn was that, E-banking revolution has significantly cut down costs of delivery and transactions, there is increased customer satisfaction, extended geographical reach and expanded product offerings. However, compared to developed countries, developing countries face many impediments that affect successful implementation of E-banking initiatives.

Rotchanakitumunai and Speece (2003) sought to study the benefits of internet banking in Thai. The qualitative research was conducted through a series of face-to face interviews with staff from Thai banks which offer internet banking. It was concluded that, internet banking reduce operating costs to both banks and corporate customers in the long run. It also assists in developing and enhancing customer relationships by meeting customer needs and wants with lower costs and service responsiveness. Al-mudimigh (2007) was of a similar opinion in a case study of E-business strategy in online banking services in Citibank- United Arab Emirates. The results indicated that, E-business strategy complements E-business model. Through internet solutions, Citibank has maintained its agility and competitive advantage.

Magutu and Mwangi (2011) study on e-commerce products and services adoption and usage in commercial banks in Kenya noted that, online banking give organisations competitive advantage in that the organisation is able to provide products and services at a reduced price than their competitors. Internet banking alleviates the transactional load from branches reducing the bank's overhead expenses and it is a substitute for more costly face-to-face interactions with banking staff members. In addition, it is a potential cost saving tool in that, banks can channel standardized, high volume, low-value transactions to the web to reduce expenses. However, on the other hand, Gakure and Ngumi (2013) in their research on whether bank's innovations influence Kenyan commercial banks concluded that, there was less agreement on the assertion that online banking has a positive influence on banks' profitability. Kenyan banks, they further noted, do not invest in internet banking with a sole objective of making high income from this service. It is instead used as a compliment of other service delivery channels in order to create convenience to the customers.

Kombe and Wafula (2015) were of a similar opinion in their study on effects of internet banking on the financial performance of commercial banks in Kenya. They observed that, impact of online banking on the performance of the banking sector mainly refers to time reductions and quality improvement rather than cost. They further contended that, cost reductions are only reliable with an increase in consumer adoption.

Okibo and Wario (2014) examined the effects of E-banking on growth of customer base in Kenyan banks. The three key variables were card system, ATM and EFT (Electronic Funds Transfer). They concluded that, E-banking has enhanced the growth of customer base. However they did not consider internet banking as another form of electronic banking. The impact of mobile and internet banking on performance of financial institutions in Kenya was assessed by Okiro and Ndungu (2013). The study revealed that, internet banking enhanced performance of the banking industry due to increased efficiency, effectiveness and productivity.

2.4. Summary of the Literature Review and Research Gap

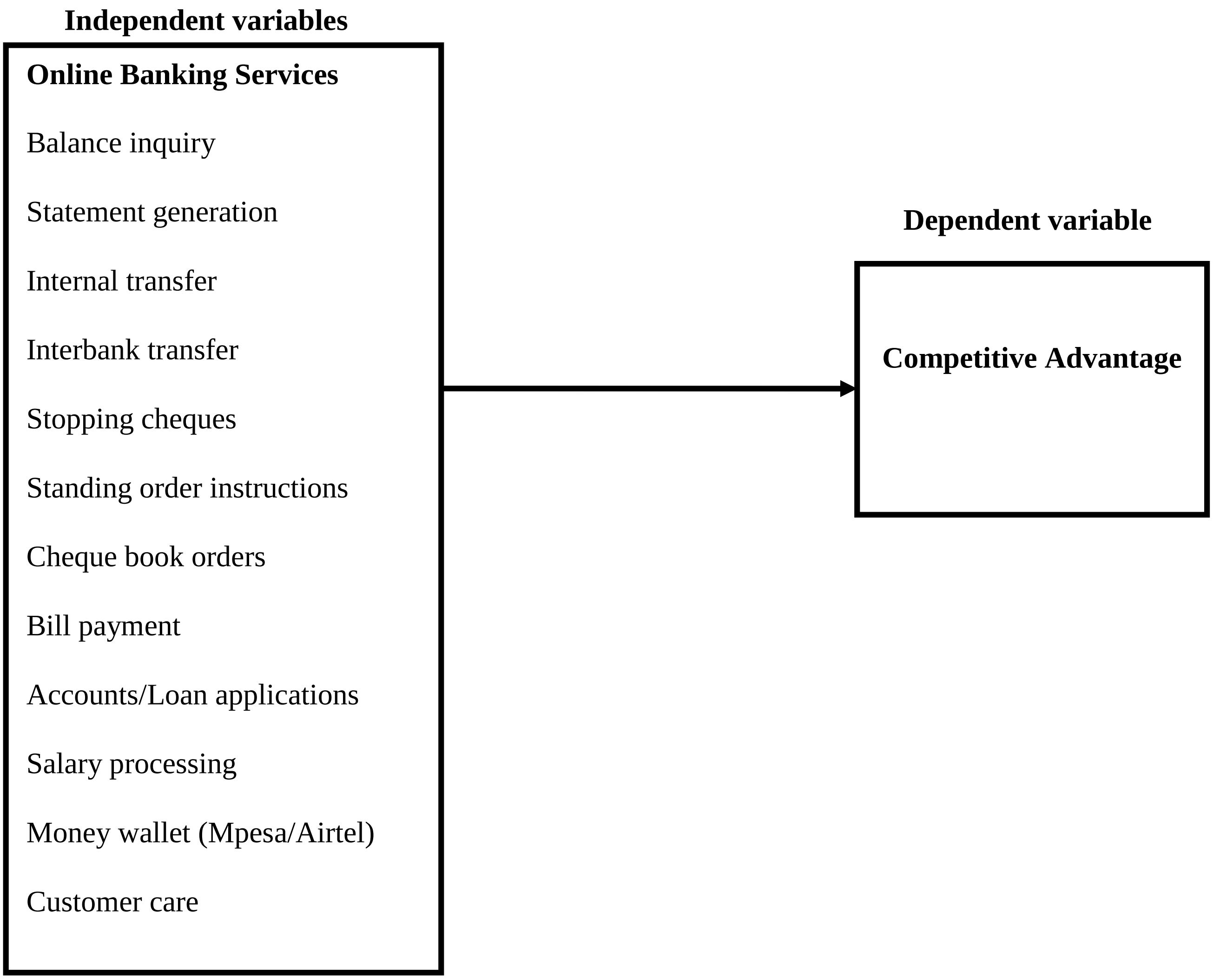
From literature and studies done in the past, it is clear that financial institutions have been in the process of significant transformation and especially in technology adoption and usage. Despite this transformation, even though there is a richness of information on the nature and scope of internet banking activities, there is a scarcity of evidence about the impact on the competitive advantage among banks.

Most of the past studies considered the effect of electronic banking on the profitability or performance of the bank but not competitive advantage. In addition, electronic banking is broad because it considers all other electronic channels such as ATMs, mobile banking and electronic funds transfers (EFTs). There was therefore need to consider online banking in details and to what extent each of its service contributes to the competitive advantage of the bank.

2.5. Conceptual Framework

Figure 2.1 shows the conceptual model of the study. The independent variables are the services offered by commercial banks in Kenya through online banking. The dependent variable is the competitive advantage enjoyed by the banks by offering their services through online banking and which give them an edge over their competitors. While moderating variables are the characteristics of the commercial banks in Kenya.

Figure 2.1: Conceptual Framework



Source: Author 2015

CHAPTER THREE: RESEARCH METHODOLOGY

3.1. Introduction

This chapter describes the procedures followed by the researcher in order to realize the objectives of the study. It discusses research design, the target population, the sample size, data collection tools and procedures and data analysis tools and methods.

3.2. Research Design

This study employed a descriptive survey research design which is best suited for this kind of research where studies are conducted to demonstrate relationships between variables. Descriptive research design describes the state of affairs as they exist at present. It formulates the problem for more precise investigation (Bevinsky, 2008).

3.3. Population

Target population is the larger set of observations (Cooper & Schindler, 2008). Cooper and Emory (1995) define population as the total collection of elements about which the researcher wishes to make some inferences. An element is the subject on which the measurement is being taken and is the unit of the study. For the purposes of this study, the target population was the 43 commercial banks in the city of Nairobi.This study focused on all the commercial banks.

3.5. Data Collection

Primary data was collected using questionnaires. The questionnaires were delivered to the digital channels and digital banking managers.They were best suited to fill the questionnaires because they have all the information regarding online banking and all branches report to them. The questionnaire was divided into five sections and the purpose was to find out information regarding the extent to which online banking services has been offered, the extent to which banks face challenges of online banking and the extent to which competitive advantage is achieved through online banking. This instrument allowed for cost and time savings for the respondents as well as the researcher.

3.6. Data Analysis

The completed questionnaires were checked to determine their consistency. Data collected was coded and analysed using Statistical Programme for Social Sciences (SPSS). Demographic data was analysed using frequencies and percentages. The extent of online banking services application and challenges were analysed using means and standard deviations. Regression model was used to analyse the relationship between online banking services and competitive advantage. The following regression formula was followed:

$$\mathbf{Y_S = \beta_0 + \beta_1 X_1 + \varepsilon}$$

Where:

Y = Dependent variable (competitive advantage)

β_0 = Constant (coefficient of intercept)

X_1 = Independent variables (Online banking services)

β_1 = Regression coefficient

ε = error term

CHAPTER FOUR: DATA ANALYSIS RESULTS AND FINDINGS

4.1 Introduction

This chapter covers data analysis and findings of the research. The data is summarized and presented in the form of proportions, means, tables, charts and graphs. Data was collected from 43 commercial banks within Nairobi that practice online banking to determine their competitive advantage. The respondents were senior managers and assistant managers in charge of digital banking. Out of the 43 institutions of which the questionnaires were administered, 35 of them responded. This gives a response rate of 81% percent. This response rate was found fit and excellent for analysis and reporting as recommended by Mugenda & Mugenda (2003) who argued that a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and above is excellent. Based on the assertion, the response rate was considered excellent.

4.2 General Information

The information obtained covered the gender, level of education, job title, experience and age of the respondents. The organisation information included the category of the bank, number of branches, number of employees, asset base and customer deposits.

4.2.1 Gender of the Respondents

The study sought to ascertain the gender of the respondents who participated in this research from commercial banks in Kenya and the results are as shown in table 4.1. Majority (65.7%) of the respondents were found to be Male while 34.3% were female. These findings show that commercial banks in Kenya ensure gender balance as there is a reasonable gender distribution.

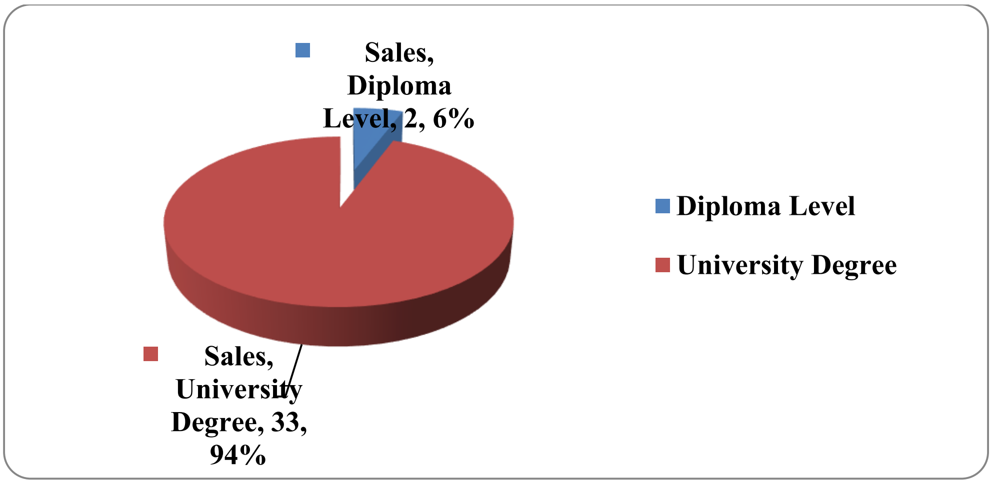
Table 4.1 Gender of the Respondents

Gender	Frequency	Percentage
Male	23	65.7
Female	12	34.3
Total	**35**	**100**

4.2.2 Level of Education

On the question of level of education, the study established that overwhelming majority of the respondents represented by 94% had achieved university degrees. Only 6% of the respondents had attained Diplomas as indicated in Figure 4.1. These results indicate that most of the employees working in the commercial banks in Kenya have required education qualification to enable them perform their duties well. Thus, a sign that the respondents were well informed and therefore, understood well the topic under investigation which led to study getting suitable information.

Figure 4.1 Level of Education



4.2.3 Job Title

The study further sought to determine the job titles of the respondents and the outcomes are as shown in Table 4.2. The job titles of the respondents were found to fall into two categories where 57.1% of the respondents were under digital channels category, while 42.9% were categorized in digital banking. This is an indication that these job categories are responsible for handling all information regarding online banking.

Table 4.2 Job Title

Job title category	Frequency	Percentage
Digital Channels	20	57.1
Digital Banking	15	42.9
Total	**35**	**100**

4.2.4 Experience at the Bank

The study sought to determine the length of time that the respondents have worked in their respective banks and the findings are as illustrated in Table 4.3. The results show that those respondents who had worked in the commercial banks for a period between 6 – 10 and 11 – 15 years were represented by 34.3% each. Those who had worked for 20 years and above were represented by 22.9%. 5.7% had worked in the banks for a period between 16 – 20 years and only 2.9% had worked between 1 – 5 years. This is an indication that most of the respondents had worked long enough in the Kenyan commercial bank and therefore understood well the operations of these banks. Hence, an indicator that the respondents have acquired satisfactory working experience which give them proper knowledge and valuable information considered for this study.

Table 4.3 Years of Work at the Bank

Experience in years	Frequency	Percentage
1-5	1	2.9
6-10	12	34.3
11-15	12	34.3
16-20	2	5.7
Above 20	8	22.9
Total	**35**	**100**

4.2.5 Age of Respondents

The age of the respondents were divided into various groups which ranged from 18 to above 45 years. The outcomes given in Table 4.4 show that 31.4% of respondents were in the age bracket of above 45 years, 28.6% of the respondents fall under range of between 36 – 40 years, followed by age bracket of 41 – 45 which was represented by 25.7%, and those who were of the age between 31 – 35 years had 14.3%. These findings indicate that the individuals who participated in this research were middle-aged and that majority of the labour force in commercial banks in Kenya consists of assorted age groups.

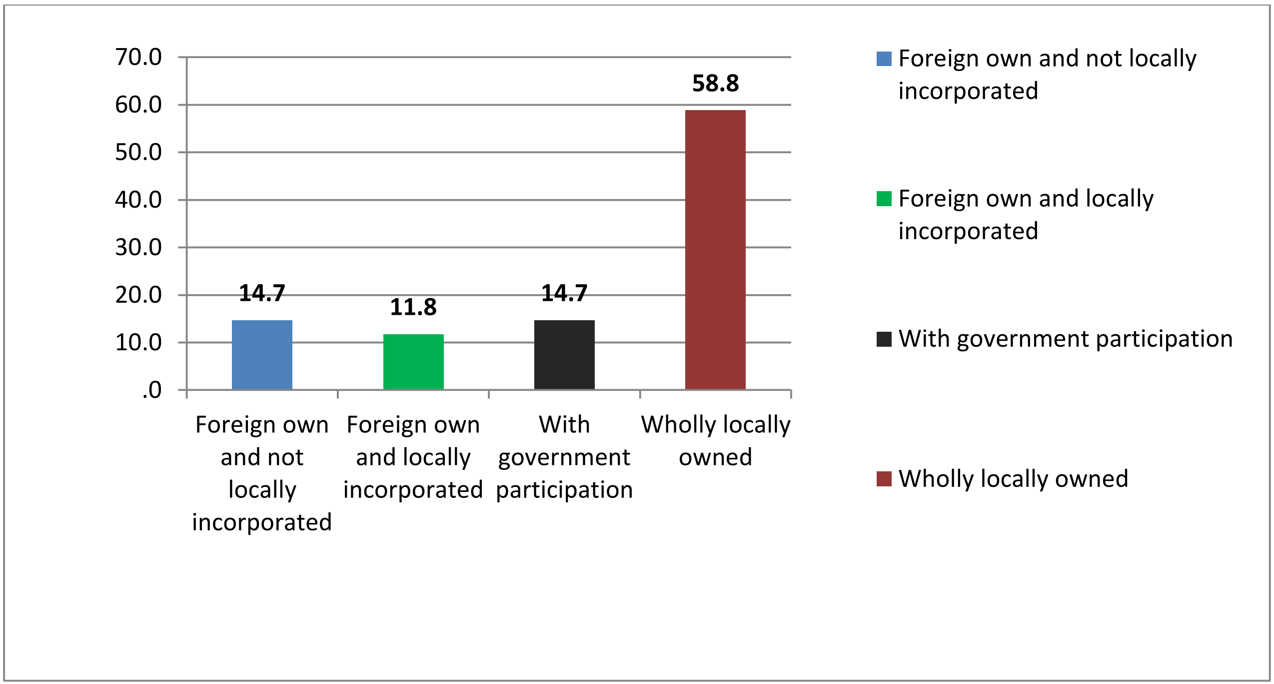
Table 4.4 Age of Respondents

Age categories in years	Frequency	Percentage
31-35	5	14.3
36-40	10	28.6
41-45	9	25.7
Above 45	11	31.4
Total	**35**	**100**

4.2.6 Bank's Category

The study as well resolved to establish the categories in which best described the banks and the results are as shown in Figure 4.2. From the findings shown in this figure, it can be deduced that 58.8% of the banks investigated were wholly locally owned. Those which are in the category of foreign owned and not locally incorporated and those which were under category of with government participation each had 14.7%. While 11.8% were foreign and locally incorporated. This signifies that the private sector has the largest market share in the banking industry as most banks are wholly locally owned.

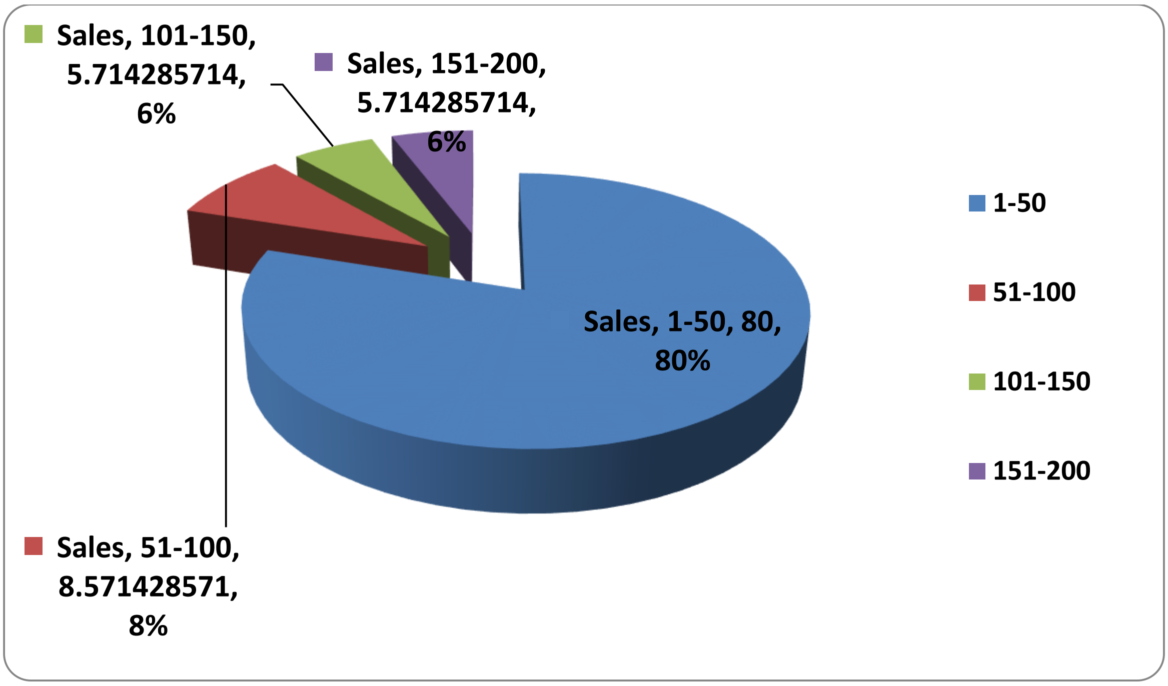
Figure 4.2 Category of Banks



4.2.7 Number of Branches

The results on the number of branches are as illustrated in Figure 4.3. 80% of the banks managed to have less than 50 branches nationally, 8% of the commercial banks under study have branches ranging from 51 – 100, while those banks which had national branches in the ranges of 101 – 150 and 151 – 200 were each represented by 6%. This is an indication that commercial banks are well spread nationally.

Figure 4.3 Number of Branches



4.2.8 Number of Employees

The study also determined the Kenya commercial banks' workforce and the outcomes are indicated in Table 4.5. The results show that 48.6% of the banks had employees number ranging from 1 – 500. 20% of the banks' workforce ranged between 501 – 1000. Similarly, employees' number of range between 1001 – 2500 had a representation of 20%. However, 11.4% of the banks had labour forces which fall under 2500 and above category.

Table 4.5 Number of Employees

No. of employees	Frequency	Percentage
1-500	17	48.6
501-1000	7	20.0
1001-2500	7	20.0
Above 2500	4	11.4
Total	35	**100**

4.2.9 Asset Base

The results on asset base displayed in Table 4.6 indicate that 54.3% of the commercial banks operating in Kenya had an asset base of less than 50 billion. 22.9% of the banks have an asset base of 200 billion and above. Banks with an asset base of between 51 – 100 and 101 – 150 were each having a representation of 8.6% while 5.7% had an asset base which ranged from 151 – 200.

Table 4.6 Asset Base

Asset base in Billions	Frequency	Percentage
1-50 B	19	54.3
51-100 B	3	8.6
101-150 B	3	8.6
151-200 B	2	5.7
Above 200 B	8	22.9
Total	**35**	**100**

4.2.10 Customer Deposit

The study sought to establish the banks' customers deposit and this was divided into various reasonable ranges in billions. From the results illustrated in Table 4.7 it can be construed that most commercial banks (42.9%) had a customer deposit ranging from 11 – 50 billion. Those with customer deposit of ranges between 1 – 10 and 101 – 200 billion had a representation of 20% each. Similarly, those which had customer deposit which ranged from 51 – 100 and above 200, had a representation of 8.6% each.

Table 4.7 Customer Deposit

Customer deposit in billions	Frequency	Percentage
1-10 B	7	20.0
11-50 B	15	42.9
51-100 B	3	8.6
101-200 B	7	20.0
Above 200 B	3	8.6
Total	**35**	**100**

4.3 The Extent of Online Banking Services Usage

The study sought to find out the extent of which customers use online banking services offered by commercial banks and the findings are summarized in Table 4.8. The study used a likert scale rating of 1 – 5 where 1 = no extent, 2 = little extent, 3 = moderate extent, 4 = large extent, and 5 = very large extent. To a very large extent (Mean = 4), balance inquiry was the most online banking service used by customers. This was followed by money wallet (Mpesa/Airtel), statement generation, and internal transfers (Mean = 3). However, interbank transfers, standing order instructions, customer care, stopping checks and accounts/loan application provided the lowest mean = 1. This is an indication that these online banking services are used by customers but to a low extent.

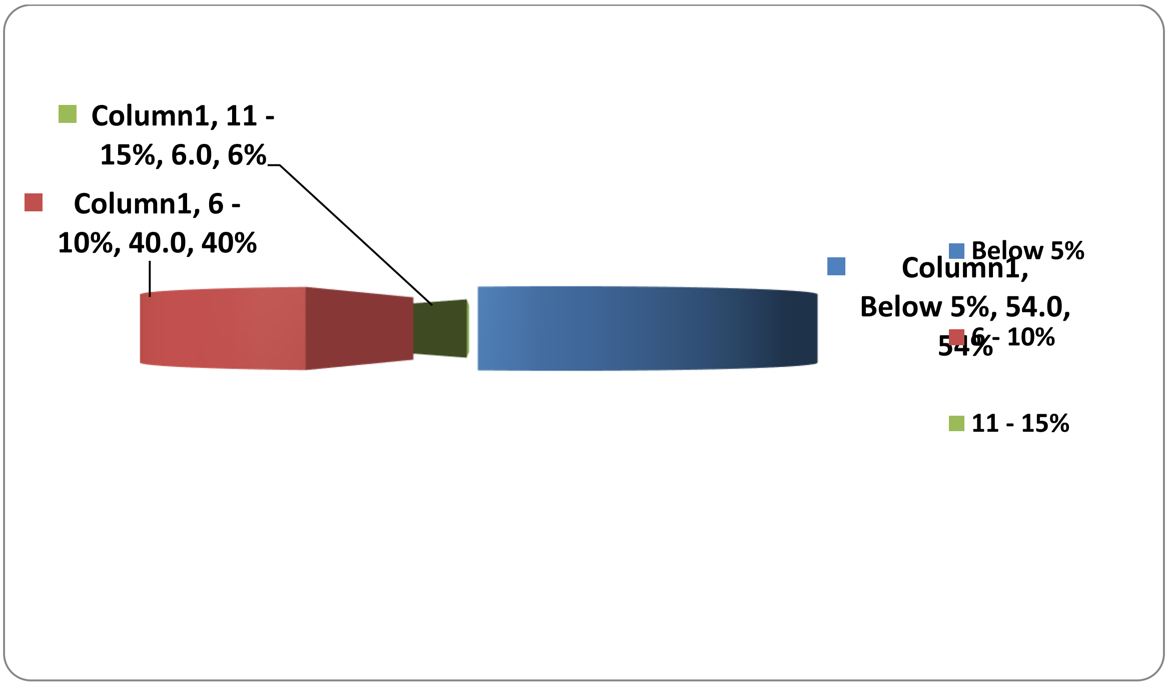
Table 4.8: Online Banking Services

Online banking services	**Mean**	**Std. Deviation**
Balance inquiry	4.0857	.85307
Money wallet (M-pesa/Airtel)	3.9429	.72529
Statement generation	3.2571	1.06668
Internal transfers	3.1429	.97446
Salary processing	2.7714	.84316
Bill payment	2.6857	.67612
Cheque book order	2.0571	.72529
Interbank transfers	1.9143	.81787
Standing order instructions	1.8857	.86675
Customer care	1.7143	.71007
Stopping checks	1.6286	.73106
Accounts/loan application	1.1714	.38239

4.3.1 Customer Base Online Subscription

The study established that 54% of the banks had a percentage customer base below 5% who had subscribed to online banking services, 40% of the commercial banks investigated had a customer base which ranged between 6 – 10 percent. While 6% of the banks, had a higher percentage (11 – 15%) of customer base that were using online services as shown in Figure 4.4.

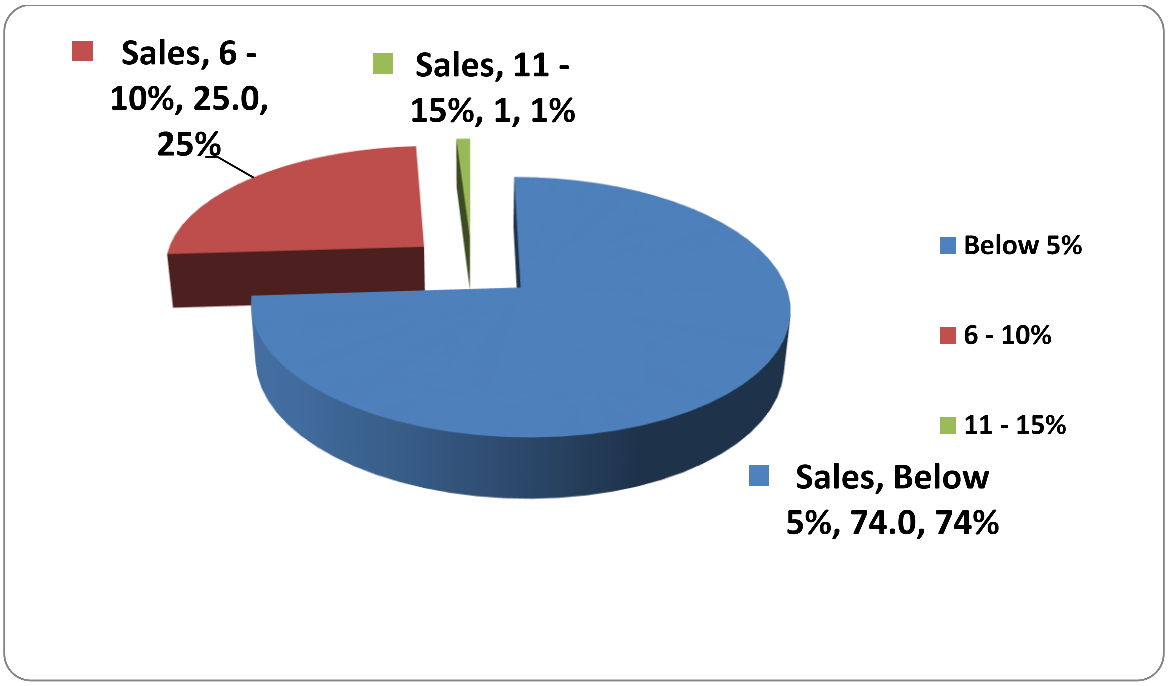
Figure 4.4: Percentage of Customer Base Online Subscription



4.3.2 Registered Customers Actively Using Online Banking

The study required to establish the percentage of registered customers that were actively using online banking and the outcomes are as shown in figure 4.5. From the results given in this figure, it can be construed that majority (74%) of the commercial banks had below 5% of customers who were registered and actively utilizing online banking services. 25% of the banks had a percentage between 6 – 10% of customers who were registered and actively using online banking services, unlike 1% of the banks who had a percent of 11 – 15 registered customers actively utilizing online banking services.

Figure 4.5 Percentage of Registered Customers Actively Using Online Banking



4.4 Challenges of Online Banking

The study sought to establish whether the following challenges are a threat to the bank in application of online banking and the results are as shown in Table 4.9. The likert scale rating of 1 – 5 where 1 = no extent, 2 = little extent, 3 = moderate extent, 4 = large extent, and 5 = very large extent; was used to estimate the extent of these challenges. The findings revealed that security concerns and legislation issues a large extent (Mean = 4), were a challenges to online banking. System downtime, computer literacy, low internet/ICT penetration, high costs of hardware and software, lack of infrastructure (software/hardware/human resource), rapid technological advancements/change, resistance from customers and incompatibility of the system with existing ones were also found to be threats (Mean = 3) to application of online banking. Whereas, reduced customer loyalty, loss of personalized services, legal issues, lack of top managementsupport and resistance from staff were found not to be a challenge in application of online banking by banks.

Table 4.9 Challenges of Online Banking

Challenges of online banking	Mean	Std. Deviation
Security concerns	4.8571	.42997
Legislation issues	4.0857	.65849
System downtime	3.4000	.77460
Computer literacy	3.2286	.84316
Low internet/ICT penetration	3.2286	.87735
High costs of hardware and software	3.1714	.92309
Lack of infrastructure (software / hardware / human resource)	3.1143	.99325
Rapid technological advancements/change	3.1143	.75815
Resistance from customers	3.0857	.44533
Incompatibility of the system with existing ones	3.0000	.76696
Reduced customer loyalty	2.8286	.61767
Loss of personalized services	2.7143	.51856
Legal issues	2.6857	.47101
Lack of top management support	2.3714	.64561
Resistance from staff	2.2000	.47279

4.5 Competitive Advantages for Online Banking

The study further established the competitive advantages of the commercial banks which was done on a likert scale of 1 – 5 where 1 = no extent, 2 = little extent, 3 = moderate extent, 4 = large extent, and 5 = very large extent. The findings in Table 4.10 shows that as a result of online banking, commercial banks in Kenya have achieved their competitive advantage to a large extent (Mean = 3) by expansion of their geographical reach, expansion of customer base, lowering cost of operation, increase in productivity of staff and lowering prices of their products and services. Targeting market niche, enhancing customer support, coming up with unique products and services, increase in bank turnover and profitability, reduced marketing and advertisement costs as well as enabling bank to collect customer data does not contribute much in banks achieving their competitive advantage .

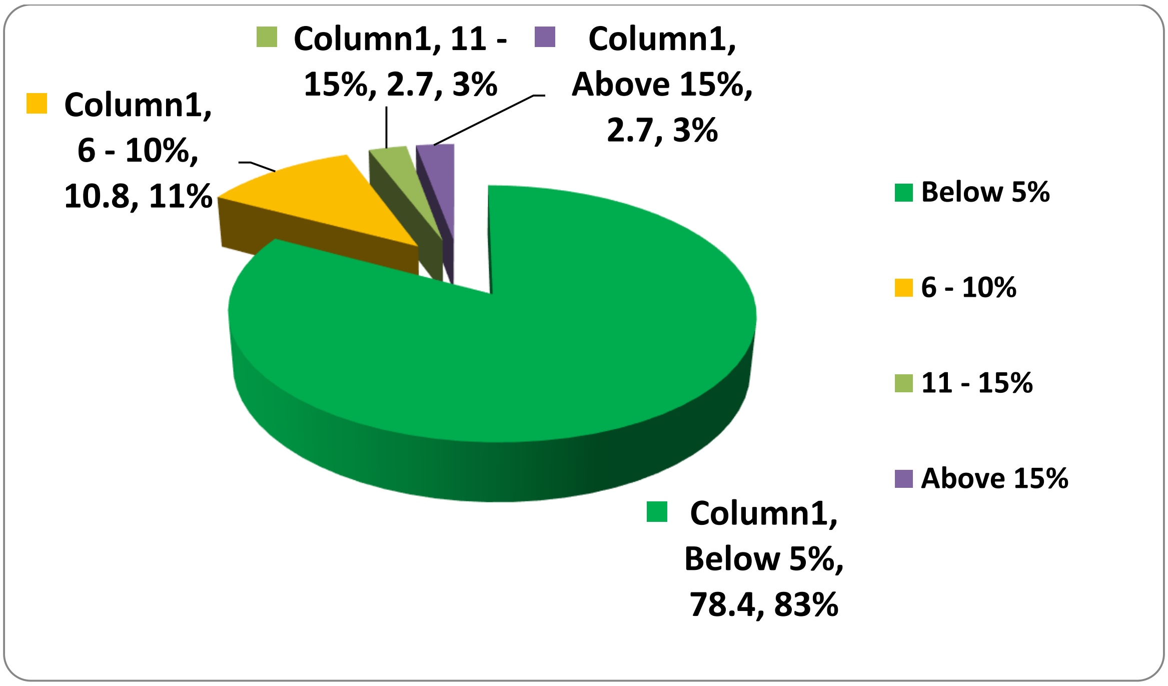
Table 4.10 Competitive Advantages for Online Banking

Competitive advantage	Mean	Std. Deviation
Expanded geographical reach	3.9714	.66358
Expanded customer base	3.9143	.65849
Low cost of operation	3.4000	.60391
Increased productivity of staff	3.2857	.45835
Low prices of products and services	3.1714	.45282
Targeting market niche	2.4286	.91670
Enhanced customer support	2.3714	.84316
Unique products and services	2.3714	.87735
Increased bank turnover and profitability	2.2286	.42604
Reduced marketing and advertisement costs	1.7143	.66737
Enabled bank to collect customer data	1.6571	.53922

4.5.1 Annual Percentage of Profit Generated from Online Banking

The study sought to determine the percentage of profit generated as a result of online banking for the last one year. From the results shown in Figure 4.6, 83% of the banks had a profit margin of below 5% gained as a result of online banking for the previous year. 11% of the banks had generated a profit margin of between 6 – 10% from online banking, while those with annual profit margin of 11 – 15% and above 15% had a representation of 3% each.

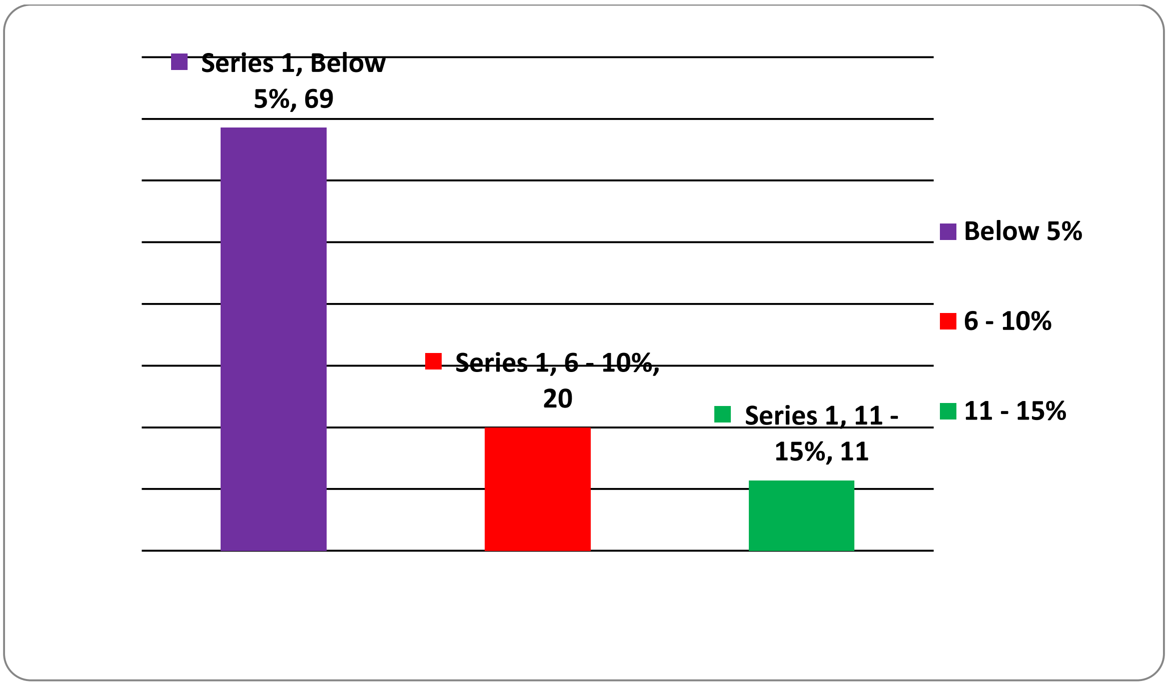
Figure 4.6 Percentage of Profit Generated from Online Banking



4.5.2 Annual Percentage of Transactions against Total Volume Gained from Online Banking

Figure 4.7 shows the percentage of transaction against the total volume carried out through online banking. From this figure it can be construed that 69% of the commercial banks in Kenya had below 5% of transaction against total volume carried through online banking in the last one year. 20% of the banks transacted 6 – 10% and 11% had 11 – 15% of the transaction against the total volume gotten through online banking in the previous year.

Figure 4.7 Percentage of Transactions against Total Volume Gained from Online Banking



4.6 Contribution of Online Banking Service Delivery to Competitive Advantage

On the question of the extent of which online banking services had contributed to achievement of competitive advantage in the bank, the study applied a likert scale rating of 1– 5 where 1 = no extent, 2 = little extent, 3 = moderate extent, 4 = large extent, and 5 = very large extent. The descriptive statistics shown in Table 4.11 reveal that commercial banks operating in Kenya achieve their competitive edge through online banking services such as balance inquiry (Mean = 4), boney wallet (M-pesa/Airtel), statement generation, and internal transfers (Mean = 3). On other hand, customer care, stopping checks and accounts/loan application do not help banks in achieving the competitive advantage (Mean = 1).

Table 4.11 Contribution of Online Banking Services to Competitive Advantage

	Mean	Std. Deviation
Balance inquiry	4.0286	.95442
Money wallet (M-pesa/Airtel)	3.9429	.76477
Statement generation	3.3429	1.23533
Internal transfers	3.2000	1.05161
Salary processing	2.8286	.89066
Bill payment	2.6471	.59708
Interbank transfers	2.2286	1.03144
Cheque book order	2.0000	.68599
Standing order instructions	2.0000	.80440
Customer care	1.9714	.66358
Stopping checks	1.8286	.74698
Accounts/loan application	1.1714	.38239

4.7 The Relationship between Online Banking and Competitive Advantage of a Bank

The research further regressed the independent variables (online banking services) to determine their effect on the dependent variable (competitive advantage).

4.7.1 Regression Model Summary

Table 4.12 gives the R Squared value which represents the amount of variation explained by the independent variables. The linear regression provided in the model summary shows the relationship between dependent variable (competitive advantage) and independent variables (online banking services). This model provided an R value of 0.735 and R^2 value of 0.540. This means that independent variables used in this study can only explain 54% of the dependent variable. The other remaining percentage can be explained by other factors not included in the study. Therefore, the model would be improved by these remaining factors that can be used to estimate the effect of competitive advantage. The error margin given by this model is 0.55952.

Table 4.12 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.735[a]	.540	.289	.55952

a. Predictors: (Constant), Customer care, Cheque book order, Accounts/loan application, Salary processing, Bill payment, Standing order instructions, Balance inquiry, Money wallet (Mpesa/Airtel), Interbank transfers, Stopping checks, Internal transfers, Statement generation

4.8.2 Analysis of Variance (ANOVA)

The ANOVA for the study model is as provided in Table 4.13. The ANOVA model gave the regression sum squares of 8.084 and residual sum square of 6.887. The regression mean square is .674 while the residuals had a mean of .313. The outcomes of the ANOVA provided an *F*-significance value of 2.152 with a *p* – value of 0.057.

Table 4.13 Analysis of Variance (ANOVA)

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	8.084	12	.674	2.152	.057[a]
	Residual	6.887	22	.313		
	Total	14.971	34			

a. Predictors: (Constant), Customer care, Cheque book order, Accounts/loan application, Salary processing, Bill payment, Standing order instructions, Balance inquiry, Money wallet (Mpesa/Airtel), Interbank transfers, Stopping checks, Internal transfers, Statement generation

b. Dependent Variable: Competitive advantage

4.8.3 Regression Coefficients

The coefficients results are displayed Table 4.14. The model provided a constant of 2.406 (t = 2.833). Customer care was found to have a significant relationship on competitive advantage of the bank as it provided a positive coefficients of .454% (t = 2.322). Interbank transfers also provided a significant effect on competitive advantage of the bank with a positive coefficient of .406 (t = .818). Bill payment had a positive coefficient of .252 (t = .909). Similarly, balance inquiry provided a significant effect as it gave a positive coefficient of 0.281 (t = .499). Nonetheless, other online banking services like statement generation, cheque book order, accounts/loan application and salary processing seemed to have much effect in determining the banks competitive advantage.

Table 4.14 Regression Coefficients

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.406	.849		2.833	.010
	Balance inquiry	.219	.438	.281	.499	.623
	Statement generation	-.276	.465	-.443	-.593	.559
	Internal transfers	.130	.454	.191	.286	.777
	Interbank transfers	.330	.403	.406	.818	.422
	Stopping checks	.151	.388	.167	.390	.700
	Standing order instructions	.049	.226	.063	.216	.831
	Cheque book order	-.325	.249	-.355	-1.307	.205
	Bill payment	.247	.272	.252	.909	.373
	Accounts/loan application	-.161	.542	-.093	-.297	.769
	Salary processing	-.143	.209	-.182	-.684	.501
	Money wallet (Mpesa/Airtel)	.014	.354	.015	.040	.969
	Customer care	.424	.183	.454	2.322	.030

a. Dependent Variable: Competitive advantage

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter gives the summary of the research findings based on the objectives of the study. Conclusion of the study, recommendations for improvement and for further studies are also provided.

5.2 Summary of Findings

Based on the survey results, majority of the banks surveyed are already offering mobile online services allowing their customers to enjoy a variety of banking services. The study established that balance inquiry was the most online banking service used by customers of commercial banks in Kenya. The other online banking services regularly used by customers were money wallet (Mpesa/Airtel), statement generation, and internal transfers. However, services like interbank transfers, standing order instructions, customer care, stopping checks and accounts/loan application were used by customers to a small extent. Most of the commercial banks in Kenya had a percentage customer base of below 5% subscribed to online banking services. Likewise, majority of the commercial banks had below 5% of customers who were registered and actively utilizing online banking services.

The study established challenges facing banks in their efforts to embrace online banking. The challenges which were found to be threat to application of online banking services are security concerns and legislation issues. Correspondingly, System downtime, computer literacy, low internet/ICT penetration, high costs of hardware and software, lack of infrastructure (software / hardware / human resource), rapid technological advancements / change, resistance from customers and incompatibility of the system with existing ones were as challenge to application of online banking services among the commercial banks in Kenya.

The findings on the determining the relationship between online banking services and competitive advantage of commercial banks revealed that majority of the commercial banks in Kenya have embraced this technology to enhance the value of their products and services. The study found out that most of achieved their competitive advantage through expansion of their geographical reach, expansion of customer base, lowering cost of operation, increase in productivity of staff and lowering prices of their products and services. Targeting market niche, enhancing customer support, coming up with unique products and services, increase in bank turnover and profitability, reduced marketing and advertisement costs as well as enabling bank to collect customer data does not contribute much in banks achieving their competitive advantage. Most of the banks had a profit margin of below 5% gained as a result of online banking for the past one year. To add on that, commercial banks in Kenya experienced below 5% of transaction against total volume carried through online banking in the last one year. The study finally discovered that there was a significant effect of online banking services towards the banks gaining competitive advantage.

5.3 Conclusion

It is evident that, customers are using online banking services which are familiar to them and easy to use. These are balance inquiry, money wallet (Mpesa/Airtel), statement generation and internal transfers. Other transactions are a bit complex and would require the intervention of a bank staff. For instance, inter-bank transfer will require the swift code of the beneficiary bank and this is not known to many customers. The customers' subscription and usage of online banking is still quite low and there is need for banks to raise these numbers in order for them to enjoy the benefits of offering internet banking.

The major challenge that the banks are facing in offering online banking is security. Other challenges especially with banks with low asset base are lack of infrastructure and rapid technological advancements. These factors go hand in hand because where a bank has sufficient resources, it will ensure that the online banking system is of high quality and will also be ready for any technological changes. In cases where the bank is struggling with resources, it will opt for cheap online banking system which most of the times has weak security features.

Customer care, bill payment, balance inquiry and interbank transfer were found to have a significant effect on competitive advantage of the bank. This is because, it is cheaper to offer services through the internet as opposed to engaging a bank staff. In addition, banks charge some fee for services such as inter-bank transfers carried out through online banking which consequently raises its profitability. In addition, the more the customers have subscribed and are using an online banking service, the more the bank benefits.

The study concludes that banks have embraced online services to enhance their competitive position in the market. Online banking has benefited most commercial banks in terms of its ability to serve and reach customers. These services have been incorporated as a way of Kenyan commercial banks gaining their competitive advantage and therefore, attract new customers and retain existing ones as well. In order to ensure that they remain relevant in providing online transaction services, banks have reacted to this by offering various banking services including: balance inquiry, money wallet (Mpesa/Airtel), statement generation, and internal transfers. Generally, these services tend to support loyalty between the customer and commercial banks in Kenya. This can improve and strengthen this relationship by ensuring that the customers are satisfied.

5.4 Recommendations

The study recommends that there is need for banks to expand in providing electronic banking services in all banks operating in Kenya. Commercial banks in Kenya should expand their geographical coverage in terms of branches and ATM machines in order to reach a vast number of customers on market. There is need for banks to adopt and implement continuous improvement strategy for their online banking business.

There is also need for banks to educate and aggressively inform their customers on the usage and benefits of online banking. More customers will subscribe and continue using online banking if they perceive it as beneficial. It is also recommended that, since quite a number of customers do not own a personal computer and the internet penetration is very low especially in the rural area, banks can enable access to online banking through mobile phone applications. This is because, almost every homestead in Kenya owns a mobile phone and the features have continued being enhanced making it possible for customers to access internet.

Finally, banks should continue enhancing and reviewing their online banking platforms in order to address the challenges that arise in their quest to offer online banking to customers. There is need to study the technology being offered in the market in order to ensure that security features are up to the desired levels.

5.5 Suggestion for Further Studies

Future studies on a larger sample of banks should be carried in order to determine the extent of the applications of e-banking. Furthermore, the studies on a sample of customers should be carried out in order to determine the extent of acceptance of electronic banking. In addition more research can be done to determine the constraints, methods and procedures that must be taken by banks for successful online banking. Again, further studies should be carried out to compare mobile banking and internet banking subscription and usage in Kenya. This should include other institutions such as micro-finances and SACCOs that compose the financial system.

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APPENDICES

APPENDIX I: QUESTIONNAIRE DESIGN

SECTION A: DEMOGRAPHIC DATA

1. Gender Male [ ] Female [ ]
2. Level of education____________________________
3. Job Title_________________________________
4. How long have you worked with the bank______________________________
5. Age ____

   1= (18-25) years

   2= (26-30) years

   3= (31-35) years

   4= (36-40) years

   5= (41-45) years

   6= Over 45 years
6. Year of incorporation of the bank______________________________________
7. Please tick the category that best describes your bank

   a) Foreign owned [ ]

   b) Wholly locally owned [ ]

   c) Locally owned with government participation [ ]

   d) Others (Specify) ________________[ ]

8. Number of Branches Countrywide______________________________

9. Number of Employees ______

1= (1-500)

2= (501-1000)

3= (1001-2500)

4= Above 2500

10. Asset Base in ksh____________________________

11. Customer Base________________

1= (1-1000)

2= (1001-10,000)

3= (10001-50,000)

4= (50001-100,000)

5= Above 100,000

SECTION B:

To what extent do customers use each of these online banking services in the bank? Please indicate using the following scale. 1= No Extent, 2= Little Extent, 3= Moderate Extent, 4= Large extent, 5= Very large extent

Online Banking Services	1	2	3	4	5
Balance Inquiry					
Statement Generation					
Internal Transfers					
Interbank Transfers					
Stopping Cheques					
Standing Order instructions					
Cheque book order					
Bill payment					
Accounts/Loan application					
Salary Processing					
Money Wallet(Mpesa/Airtel money)					
Customer Care					

12. What percentage of your customer base has subscribed to online banking?

____

13. What percentage of the registered customers actively use online banking?

____

SECTION C:

To what extent does the bank face each of these challenges in application of online banking?

Please indicate using the scale below.

1= No Extent

2= Little Extent

3= Moderate Extent

4= Large Extent

5= Very large extent

Online Banking Challenges	1	2	3	4	5
Security Concerns					
Legislation Issues					
System Downtime					
Lack of top management support					
Incompatibility of the system with the existing ones					
Lack of infrastructure(software/hardware/human resource)					
Resistance from staff					
Resistance from customers					
Legal issues					
Low Internet/ICT penetration					
Computer Illiteracy					
Loss of Personalised Service					
Reduced Customer Loyalty					
High Costs of Hardware & Software					
Rapid Technological advancements/change					

SECTION D:

To what extent has the bank achieved each of these competitive advantages as a result of online banking?

Please indicate using the scale below.

1= No Extent

2= Little Extent

3= Moderate Extent

4= Large extent

5= Very large extent

Competitive Advantage	1	2	3	4	5
Low prices of products & Services					
Unique products & Services					
Low cost of operation					
Expanded Customer Base					
Expanded Geographical Reach					
Enhanced Customer Support					
Targeting market niche					
Increased Productivity of Staff					
Enabled Bank to Collect Customer Data					
Increased bank Turn-over and Profitability					
Reduced marketing and advertising costs					

14. What percentage of profit has been generated as a result of online banking for the last one year? ____________________________

15. What percentage of transactions against the total volume has been carried out through online banking for the last one year?____________________________

SECTION E:

To what extent has delivery of each of these online banking services contributed in achieving competitive advantage in the bank?

Please indicate using the scale below.

1= No Extent

2= Little Extent

3= Moderate Extent

4= Large extent

5= Very large extent

Online Banking Challenges	1	2	3	4	5
Balance Inquiry					
Statement Generation					
Internal Transfers					
Interbank Transfers					
Stopping Cheques					
Standing Order instructions					
Cheque book order					
Bill payment					
Accounts/Loan application					
Salary Processing					
Money Wallet(Mpesa/Airtel money)					
Customer Care					

APPENDIX II: A LIST OF KENYA COMMERCIAL BANKS

Foreign Banks

1) Bank of Africa, Nairobi
2) Bank of India, Nairobi
3) Citi bank, Nairobi
4) Habib Bank A.G Zurich, Nairobi
5) Habib Bank, Nairobi

Foreign Owned but Locally Incorporated Banks

1) Bank of Baroda, Nairobi
2) Barclays Bank of Kenya, Nairobi
3) CFC Stanbic Bank, Nairobi
4) Diamond Trust Bank, Nairobi
5) Ecobank, Nairobi
6) GT Bank, Nairobi
7) Standard Chartered Bank , Nairobi
8) United Bank of Africa, Nairobi

Banks with Government Participation

1) Consolidated Bank Of Kenya Ltd
2) Development Bank, Nairobi
3) National Bank of Kenya, Nairobi

Banks Locally Owned

1) African Banking Corporation, Nairobi
2) Charterhouse Bank, Nairobi
3) Chase Bank Ltd
4) Commercial Bank of Africa, Nairobi
5) Cooperative Bank of Kenya, Nairobi

6) Credit Bank Ltd

7) Dubai Bank Ltd

8) Equatorial Commercial Bank

9) Equity bank

10) Family Bank

11) Fidelity Commercial Bank Ltd

12) First Community Bank, Nairobi

13) Giro Commercial Bank

14) Guardian bank Ltd

15) Gulf African Bank, Nairobi

16) Imperial Commercial Bank

17) Investment &Mortgages Bank Ltd

18) Jamii Bora Bank, Nairobi

19) Kenya Commercial Bank Ltd

20) K-Rep Bank

21) Middle East Bank (K) Ltd

22) National Industrial Credit Bank, Nairobi

23) Oriental Commercial Bank, Nairobi

24) Paramount Universal Bank, Nairobi

25) Prime Bank Ltd

26) Transnational Bank Ltd

27) Victoria Commercial Bank, Nairobi