CONTRIBUTION OF MOBILE BANKING TOWARDS FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN KENYA

BY

ELIZABETH MAINA

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DECLARATION

This is to declare that this research <u>proposa</u>l is my original work that has not been presented at any other university or institution of higher learning for examination.

Signed:_____ f o ^ S _____Date: ^ I ^ O p -

ELIZABETH MAINA

D61/60300/2010

This is to declare that this proposal has been submitted for examination with my approval as the University Supervisor.

Signed:_____ j j j ^ y ^ y ._____Date <u>^ **rfr**</u>   v ^ r ^   **V**

MR J.M.NG'ANG'A

DEPARTMENT OF BUSINESS ADMINISTRATION,

SCHOOL OF BUSINESS,

UNIVERSITY OF NAIROBI

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DEDICATION

This dedication is to my loving parents, brothers and sister for supporting me through the whole process and who encouraged me to further my studies, for helping me understand how to work under pressure and to my fiance who understood the tireless nights working on my project and supporting me financially. I also dedicate this to the Almighty for helping me through it all. Thank you and God bless.

ABSTRACT

Financial institutions in Kenya have adopted mobile services to provide crucial banking services to customers in Kenya. This study was quantitative in nature. It also discusses the effect of process, product and technological development on delivery of the mobile banking service. Its impact on financial performance of financial institutions in Kenya as well as the provision of services from banks' perspective. This project seeks to help quantify the profitability of mobile banking in Kenya.

It discusses the basic motive of banks to adopt M-banking services which has been facilitated by increased competition in the market and the need to provide more and better service delivery to customers.

This study aimed at bringing out the positive and negative contributions of mobile banking in the banking industry and the general impact of it on the nation's financial performance. The results show that e-banking has increased the profitability of banks: it has enabled the banks to meet their costs and earn profits even in the short span of time. For banks, the main motive to adopt e-banking is to increase their clientele, to retain their customers, reduce costs and make profits.

The research was conducted through a survey design and secondary data from financial statements of seven banks in Kenya. Data collected was quantitative and was analysed by use of spss program. Some qualitative analysis was done to be able to establish the opportunities that mobile banking has helped in attaining financial performance.

The research shows that mobile banking to a larger extent impacts the financial performance of commercial banks in Kenya in that it helps reduce unnecessary cost,

increase efficiency and improves on service delivery to customers. This on the other hand increase the banks profits in the long run.

The study concludes that Adoption of mobile banking is very important in the improvement of financial capital adequacy of commercial banks and profitability. Mobile banking is being used to improve financial operations. The banks have put in place measures become more competitive by training its staff, investing in research and development of technology.

The study recommends that for all the commercial banks to earn more profit increase the number of customers and for their businesses to grow further they have to invest more as well as embrace the adoption of market innovative strategies.

It also recommends that banks should adapt the new technologies being introduced in order to cope with the fast changing technology like use of tablets. To theory this study recommends that research into the innovation theories should be done with an aim of validating the theories to the current operating environment of banks. For further research the study suggests that commercial banks should investigate the effects of innovation strategies. The same study should also be conducted in other types of industries

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ABBREVIATIONS

ATM   Automated Teller Machine

CAMEL   Capital adequacy
- Asset quality,
- Management quality,
- Earnings
- Liquidity,

I.T   Information technology

PDA-   Pocket digital assistant

SPSS   Statistical Package for Social Sciences

ROA   Return on assets

ROE   Return on equity

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Mobile banking also known as M-Banking, is a term used for performing balance checks, account transactions, payments, credit applications and other banking transactions through a mobile device such as a mobile phone or Personal Digital Assistant (PDA).Mobile communication is growing rapidly extending the range of possibilities that can be achieved by mobile telephony. The mobile phone is not just a communication gadget it's being used in business applications especially the third generation phones they transmit data, video streaming, online shopping, location (Google maps), browsing etc. E-developments are emerging every day in the areas of financial intermediation and financial markets.

M-banking is one of the newest approaches to the provision of financial services through ICT. made possible by the widespread adoption of mobile phones even in low income countries and has witnessed explosive growth in markets such as South Africa, the Philippines and Kenya. Emerging m-banking platforms in developing markets enable two-sided markets, bringing together mobile handset users with other mobile users and commercial partners.

M-banking is the newest delivery channel for banking services. The definition of M-banking varies amongst researchers partly because m-banking refers to several types of services through which bank customers can request information and carry out most retail banking services via mobile phone. Daniel, (1999) for example, described it as

an electronic connection between bank and customer in order to prepare, manage and control financial transactions.

Mobile Phone Banking is one of the latest developments in the banking industry. The driving force behind this latest development is the influential change in Information Technology (IT) (Daniel, 1999). The carrying out of business transactions with your bank through the help of a mobile phone is now growing in various parts of the globe. Financial customers are becoming increasingly discerning and demanding when managing their services. They expect "any time, any place, anywhere services, (Black. Lockett. Ennew, Winklhofer and McKechnie; 2002). The way forward for banks is to take full advantage of process, product, organisational and technological innovation including Automated Teller Machine, phone banking, home banking and internet banking if they are to retain competitive stress sales, that banks must adopt IT or perish. It is for the same reason that Kenya's Financial institutions need to adopt this technology. Torres (2001) argues that it's time to replace your leather wallet for a cell phone. Banking with a palm held devices adds an exciting new dimension to online banking. One can enjoy all there is, convenience, privacy and security of online banking through a hand held computer that fits neatly in ones purse or pocket example a tablet.

The economic state prevailing in the country necessitates the need to have more cash access points than just banks and Automated Teller Machines. This has led to the emergence of m-banking where mobile service providers Safaricom.Airtel, Orange and Essar Yu Have embraced the opportunity and introduced M-Pesa and Sokotele.Orange money.Yu money, respectively as faster cash access points to their customers

1.1.1 Overview of Mobile Banking and the Banking Sector in Kenya

The mobile banking services are available to mobile phone users of the two major mobile service providers namely Safaricom and Airtel. Safaricom's service is branded "M-pesa" and Airtel service goes by the "Airtel money" brand name. The latest entrants i.e. Orange / Telkom, Econet wireless are starting to pick up. Commercial banks in Kenya are working directly with Safaricom using its global pioneer money transfer service, M-pesa to enables customers to debit their existing bank account and credit their M-pesa account directly and vice versa. Pay utility bills, loans and credit card payments. The launch of Mobile Banking made carrying out of financial transactions very easy and convenient for customers. This generates more income for banks and aids bank in reducing operational costs especially in man hours

Competition is stiff among banks in Kenya. Some banks are even open seven days a week in an effort to attract more clients. They are aggressively pursuing growth in personal loan products, Credit card access and non-secured loans. Kenyan banking industry still has a long way to go. Salaries and wages are often very high because there are no Information Technology (IT) systems as each branch has its own infrastructure this means that any work which could be done at a central place, then distributed to the branches through networking has to be done at the branch level, this

increases cost of staff needed and also reduces efficiency. New legislation, a new IT infrastructure and new strategic directions will strongly contribute towards growth of banking in Kenya. Most banks have achieved branchless banking through Automated Teller Machine for every 100 000 people (East Africa Discusses Road Ahead for Kenyan Banks, 2005).

1.2 Statement of the Problem

Kenya's mobile phone banking market is at its infancy and not fully developed hence this study seeks to explore the benefits and challenges to commercial banks in relation to financial performance. Most of the existing studies in electronic banking (E-banking) delivery of financial services have adopted an original perspective (Daniel, '1999) or a distribution channel perspective (Black, Lockett, Ennew, Winklhofer & McKechnie, 2002). They have largely been conducted in the context of internet banking. Locally, research has dwelt on E-commerce i.e. its benefits and challenges to customers and business. Merwe (2001) who concentrates on the technical and security aspects of M-banking and Ndege (2006) who discussed a survey of customer adoption of M-banking service in Kenya. Mobile banking is a unique process of improving the bank's balance sheet. M-Banking has business potential if its managers are to reach the mass market and this is already evident in Europe where mobile phones are used to perform numerous banking transactions. Already a number of businesses have introduced mobile service covering the information, communication and transaction dimension (Black, Lockett, Ennew, Winklhofer & McKechnie, 2002). To facilitate this and allow other businesses to subscribe for their services many banks have introduced mobile payment across to the customer's accounts (Kumar & Zahu. 2003).The customer adaptation of M-banking services inconsequently explains the

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different adaptation patterns in Kenya. While there has been an increasing body of literature examining the potential of socio-economic effects of m-banking in developing markets, no research has been done on the effects of mobile banking on financial performance of commercial banks in Kenya. This research aims at filling the existing gaps by shedding light on effects of M-banking on the banking sector in Kenya.

1.3 Objectives of the Study

The main objective of this study is to determine the relativity between mobile banking and financial performance of commercial banks in Kenya.

1.4 Importance of the Study

Findings of this study will indicate how mobile banking contributes to the banks' financial growth if well integrated. Therefore, bank managers will clearly understand the same and will strive to encourage or discourage mobile banking based on such findings.

The study will be of importance to the Kenyan consumers who would benefit from mobile banking (M-pesa) and end up contributing positively to the economy and reduce the number of unbanked citizens in the country thereby more customers will subscribe to the service and banks will reduce costs. Increase their clientele base as well as increase there profitability. It will also form a good literature base upon which further studies and references will be drawn. Academicians will, benefit from the findings of this study as it will add to the body of existing Knowledge in finance. This will comprise of the Kenyan current and future scholars and researchers since it will

broaden their knowledge on the how mobile banking contributes to banks' financial performance.

This study will also provide an understanding of the socio economic effects of mobile banking to the M-banking services providers. This will be useful to the service providers (Safaricom, Airtel. Orange and Essar Yu) who will in turn use it to solve bottlenecks to encourage M-banking in Kenya. This will enable them to tailor their products to the customers' needs and make targeted marketing decisions for M-banking.it will also help mobile providers to advance and tailor make their existing products to retain and attract more customers.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter summarizes the information from other researchers who have carried out their research in the same field of study. The specific areas covered here are theoretical review, empirical review and the conceptual framework.

2.2 Theoretical Review

It is assumed that the mobile phone as a channel for service consumption would offer enormous potential in banking, since today a mobile phone is an integral part of customers' lives and a growing number of these devices are also equipped with internet connection (Laukkanen and Lauronen, 2005). Previous studies indicate that factors contributing to the adoption of mobile banking are related to convenience, access to the service regardless of time and place, privacy and savings in time and effort. Furthermore, it is argued that the use of mobile banking services would increase one's self-prestige (Lee, McGoldrick, Keeling & Doherty, 2003).

The major advantage of a mobile phone is its portability and easy access to the services needed whenever and wherever. Whilst using mobile-bill payment, the ability to react immediately to the service need, to save time has been found to be the greatest contributors of the service (Laukkanen & Lauronen, 2005). However, the consumption of banking services via mobile phone has remained slow.

The mobility restricts the technical features of the device and impairs the usability of the service. Tapping information using small keyboards of cell phones and information processing on a small display have been found to be inconvenient and to inhibit mobile-bill payment (Laukkanen & Lauronen, 2005). Therefore, the aim of the study is to explore how customers' value different channel attributes in bill paying.

2.3 Empirical Literature

2.3.1 Access to Information

As electronic distribution channels become increasingly sophisticated, service providers are providing multi-channel services for their customers. It is argued that the entire environment in retailing is being changed with the introduction of multi-channel systems designed to offer a range of retail experiences and different kinds of value for customers (Mathwick. Malhotra and Rigdon, 2001). However, Schoenbachler and Gordon (2002) note that the focus of development of multi-channel service distribution has mostly been on the channels: how to improve the channels, or how to direct customers to the channels without violating the existing customer relationships. However, they argue that the focus should be on consumer preferences instead of channels, and suggest that a customer-centric focus would enable managers to better develop and design successful and effective distribution channels.

As a technical platform for service delivery, different electronic channels have different characteristics. These characteristics form the basis for the creation of customer perceived value. Thus, the means to provide value for customers differ between channels. Earlier studies have suggested that consumers prefer a mix of

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several channels rather than a single channel in banking (Howcroft, Hamilton and Hewer. 2002). Furthermore, some customers seem to want increasing access to all available delivery channels and do not regard them as substitutes (Durkin Howcroft, O'Donnell and McCartan-Quinn, 2003).

In order to manage the supply in different distribution channels efficiently, service providers are faced with a need to understand what services to deliver in which channel. Moreover, in order to focus their marketing actions, decision makers need to understand how consumer preferences differ between different channel characteristics in the consumption of electronic services.

Banking technological developments in Kenya make it much easier and cheaper for customers to compare and contrast products and to establish multiple banking connections. Better communications technology will alter dynamics of purchase decisions.

2.3.2 Financial Market Expansion

The development of marketing is influenced by the development of society and its economy. Social and economic conditions largely influence the direction in which marketing evolves. Hence, marketing must continuously make the adaptation necessary for its healthy survival.

According to Kotler (2011), marketing management is the analysis, planning, implementation and control of programs designed to create, build and maintain beneficial exchanges with target buyers for the purpose of achieving organizational objectives such as high profits, sales growth, and market share. This definition of

marketing management emphasizes the carrying out of tasks to achieve the desired demand levels in various markets.

The purpose of marketing is to generate customer value at a profit. The truth of the matter is that the relationship with a customer will break when value evaporates, •you've got to continue to generate more value for the consumer but not give away the house' it's a delicate balance indeed.

For instance Mc Donald's monitor product and service quality through continuous customer surveys and puts great energy into improving hamburger production methods in order to simplify operations, bring down costs, speed up service and bring greater value to customers. Beyond these efforts each Mc Donald's restaurant works to become a part of its neighbourhoods through community involvement and service projects. Thus Mc Donald's focus on consumers has made it one of the world's largest food-service organizations.

Exclusive partnerships between banks and mobile carriers imply that both players are locked into a contractual relationship to jointly enable mobile banking and payment services. This strategy allows the partnership to significantly reduce coordination costs and time to market. Additionally, the interface and user experience can be highly customized to reflect the capabilities and brand positioning of the partnership.

However, bank-mobile exclusive partnerships are not a viable strategy since the addressable market - based on overlap between banks' and carriers' customer bases - is small. Companies following this strategy will not be able to acquire a critical mass of customers to make the service financially viable. Furthermore, exclusive partnership models limit new opportunities in a dynamic market. Strategic

inflexibility will strain such partnerships in the long run. Exclusive partnership models face significant threats from open partnerships that can aggregate a much larger addressable market and use standardized platforms to reduce costs.

Open partnership models allow banks and mobile carriers to connect to each other using standardized interfaces. Open relationships provide strategic flexibility to banks and carriers, allowing each to exploit emerging opportunities without incurring significant costs while entering or exiting a partnership. Additionally, open models can create larger addressable markets than exclusive partnerships. In an open-partnership model, the full-spectrum of banking and payment services may not be available to end-users. Inherently generic services limit opportunities for differentiation. The possibility of developing a stable banking and payment platform in an open partnership model is challenging.

2.3.3 Efficiency in Financial Service Delivery

The importance of continuously monitoring and adapting to marketing environment changes by companies which have recognized that business are constantly spinning out new opportunities and threats comes as a consequence of spotting the need for customer care techniques and services. That calls for embracing of an outward - inward organization's view of their performances.

Financial services delivery and consumption has experienced major changes during the last years. Technological development has reshaped the business environment. The banking industry is among the leading sectors in adopting and utilising the internet and mobile technology on consumer markets and consequently its service delivery has undergone changes unprecedented in its history. The development of

electronic banking services via multiple electronic channels has made it possible to provide new kinds of added value for customers. Applying the internet with solely focusing on cost reduction may lead to high supply chain effectiveness while potential customer value opportunities may be ignored (Jonsson and Gunnarsson, 2005). Therefore, understanding service user behaviour and value perceptions is one of the fundamental requisites of service development.

Banks encourage customers to be more receptive to new electronic channels and more sophisticated in demanding better service quality including 24 hour service availability (Coelho and Easingwood. 2003). The simultaneous and increasing diffusion of mobile phones and especially WAP-cnablcd dcvices has made the transformation of banking applications to mobile devices a logical development in electronic banking (Pousttchi and Schurig, 2004).

Indeed, mobile banking has emerged as a wireless service delivery channel providing increased value for customers' banking transactions. The mobile phone introduced a new channel for banks to reach customers.

This is because Bank branches are becoming increasingly expensive to operate, and customers are increasingly demanding by wanting to do business when it is most convenient for them. For those on the move, between rushed appointments, it's a service available to the hurried entrepreneur. Mobile phone banking comes in as part of the bank's initiative to offer multiple channel banking and convenience for its customers.

2.3.4 Financial Innovation and Banking

According to the literature, financial innovations are specifically driven by technological change and consumer demand Nasri, (2007). The major discussions are focusing on the lines of: new products & services, new production process and new organizational form. From such contacts customers accrue a generalized service expectation or standard based on their day-to-day history as customers. It is from the accumulation of these service experiences that customers establish personal standards and use them to gauge service quality. Intuitively, they could create distinctive standards of service across industries in terms of their requirements from the tangible and intangible dimensions of the services (Gronroos, 1984).

That is, they might have different expectations in how they may be treated and the personal service they may expect as a customer at a banking institution than how they are likely to be treated at a concession stand at a sports event. This may include expectations of both the quality of the service setting and the personal service received. One of the primary objectives of developing new products and services is to attract new customers and to retain existing customers. Present Internet demographics suggest that it is the relatively well off and the well educated that use the Internet, which suggests that potential users are high net worth customers. The banks those are unable to respond to requests for new services, risk losing existing customers to competitors.

The use of multiple distribution channels can increase effective market coverage by enabling different products to be targeted at different demographic segments. Additionally, customers are likely to place their trust in proven innovators. Therefore

it is important to build a reputation for innovation. This may make it easier to sell financial services, attract more customers, and retain existing customers. Recent changes in the regulatory framework have enabled many banks to expand their services into non-traditional banking areas. Product innovations are; Airtel and Safaricom mobile phone money transfer services M-pesa and Zap to tap the potential for small scale transactions at reasonable costs. Equity Bank partnering with Safaricom to introduce the M-kesho service. Products tailored to suit specific status groups such as Excel, Priority, Premier and Executive Banking services Bank accounts tailored for specific age groups such as Barclay's Bank junior eagle accounts for kids.

Service innovation primarily relate to enhanced account access and new methods of payment-each of which better meets consumer demands for convenience and ease. Automated Teller Machines (ATMs), which were introduced in the early 1970s and diffused rapidly through the 1980s, significantly enhanced retail bank account access and value by providing customers with around the clock access to funds Rakesh (2006). Using a given mobile agent number customers are able to use there mobile phones to withdraw at ATM's without using atm cards.

2.4 Summary

Mobile banking in Kenya has a sporadic usage subscription by rural and urban population. Most financial institutions are resistant to introduce more financial services on the mobile phone for security reasons, user experiences illiteracy challenges hence not many people have access to the mobile banking services. This is an area which has not been fully studied hence mobile banking will move beyond the

traditional limited approach and instead explore innovative and value oriented application approach. The demands for vibrant mobile banking facilities implementations revolves around improved coverage, quality connections, reduced costs to ensure affordability by all prospective users. On the policy front there is urgent need to device policies and strategies that reverse gaps in terms of gender, income levels and rural-urban demographs.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the methods and procedures that were followed in conducting research with the aim of evaluating the relativity between mobile banking and financial performance of the commercial banks in Kenya. This chapter outlined research design in section 3.2, population and sample in section 3.3, data collection procedures in section 3.4, research models in section 3.5 and data analysis in section 3.6. A sample design is defined as a representative that a researcher has planned to study in order to access relevant information in relation to the research problem. According to Kerlinger (1993) 10-30% of total population forms a representative sample and the researcher should take as big a sample as possible if he/she has adequate time for the study to ensure that someone else would get similar findings to a higher degree if he/she selected another sample of the same size.

3.2 Research Design

This study took on a Quasi-experimental research design. A Quasi-experimental design involves selecting groups upon which a variable is tested without any random pre-selection processes (William, 2006). This design is inferior to randomized experiment but taken as a group, they are easily more frequently implemented than the randomized experiment. Quasi-experimental design had a better chance of studying exactly what was chosen for the study hence this method unequivocally enjoys advantage over all other designs. It provides proof of causal sequence while descriptive design relies upon correlation.

3.3 Population and Sample

In line with the subject matter of the study, the target population of the study was seven commercial banks in Kenya. There are commercial banks were 44 in number by the end of 2011 (CBK Report. 2011).The accessible population was all the commercial banks as at 31st December 2011 and had an operated uninterrupted period of 5 years (that is, from January 1st 2007 to 31st December 2011).The study was conducted using census survey owing to the number of commercial banks in Kenya.

3.4 Data Collection

The study used secondary data on financial performance obtained from the companies' financial results and publications, also returns done by the commercial banks to central bank were very useful. According to Mugenda & Mugenda, (2004) the technique produced estimates of overall population parameters with greater precision and ensured a more representative sample is derived from a relatively homogeneous population. Stratification aimed to reduce standard error by providing some control over variance. According to Cooper and Schindler (2003), random sampling frequently minimizes the sampling error in the population. This in turn increases the precision of any estimation methods used. Secondary data will be collected by use of desk search techniques from published reports and other documents. Secondary data includes the banks publications, journals, and periodicals.

3.5 Research model

This study took on Multiple regressions which is a flexible method of data analysis that may be appropriate whenever quantitative variables (the dependent) are examined

in relationship to any other factors (expressed as independent or predictor variable). Relationships may be non-linear, independent variables may be quantitative or qualitative and one can examine the effects of a single variable or multiple variables with or without the effects of other variables taken into account. It's used to predict the unknown value of known variables or predictors. Financial innovation is measured using the level of investment in research and development by the various banks as indicated in their periodicals and statements. Their commitment to research and development.

Financial performance or increase in revenue or cost reduction (Dependent variable) of commercial banks depends on technology, product, market and process development (Independent variable).The independent variables.

The multiple regression model equation is:

$Y= po+ (3,X,+p_2X2+ P3X3+ P4X4+CI$

Where,

Y-Financial performance of commercial bank

po-the regression coefficient

Xi = Technological

X_2 = Product

X_3 = Market

$X»$ = Process

a = Error term

3.6 Data Analysis

The data collected was accurately, uniformly and consistently edited and arranged to enable coding and tabulation before final analysis. Quantitative data was analyzed through descriptive statistics such as measure of central tendency to generate relevant percentages, frequency counts, mode, and median and mean where applicable. The study also used multiple linear regressions to analyze the data.

Correlation analysis was used to describe the degree to which one variable is related to the other. The relationship, if any, is usually assumed to be linear. In this study coefficient of correlation **(r)** and coefficient of determination **(r^2)** was estimated to determine the nature and magnitude of the relationship. Correlation coefficient was used to measure the degree of relationship between financial innovation and financial performance of the commercial banks. The data was coded and entered into Statistical Package for Social Sciences (SPSS) version 17 for analysis along with variables and values to get the correlation coefficients. The magnitude of the sample coefficient of correlation indicates a weak or strong linear relationship. SPSS is used to perform the analysis as it aids in organizing and summarizing the data by the use of descriptive statistics such as tables. Data presentation was done by the use of pie charts, bar charts and graphs, percentages and frequency tables. This ensured that the gathered information is clearly understood. A report was be drawn with the conclusions and recommendations based on the findings.

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter presents analysis and findings of the study as set out in the research methodology. The study findings are presented on to determine the relativity between mobile banking and financial performance of commercial banks in Kenya. The data was gathered exclusively from the financial statements of seven banks in Kenya.

4.1.1 Response Rate

The study targeted 7 commercial banks in Kenya that are currently using this service to improve customer needs

Figure 4. l:Strategies that had been adopted by the institutions to improve Mobile banking in kenya.
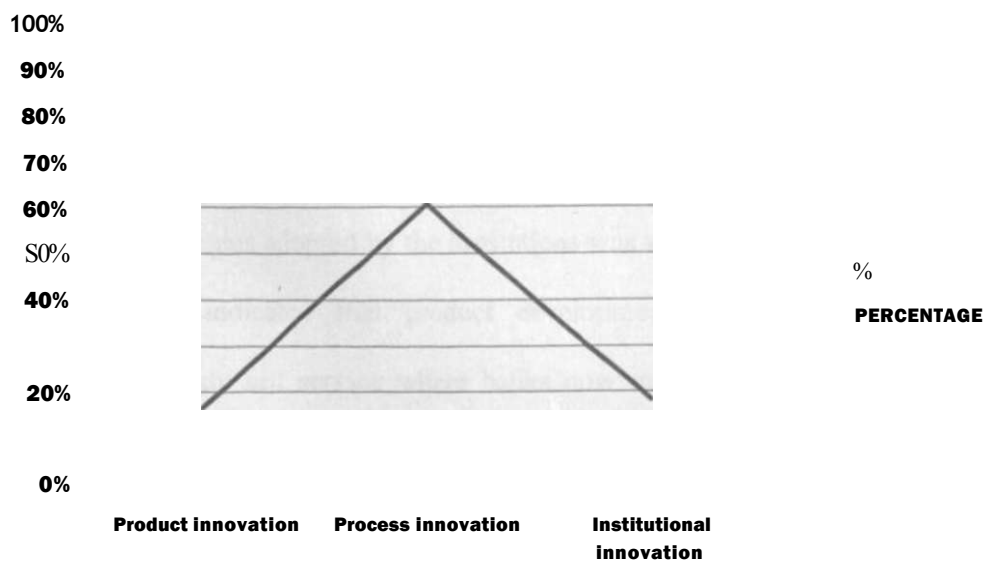
The study sought to find out the financial strategies that had been adopted by the institutions to enhance growth and efficiency of mobile banking According to the findings, 70% of the institutions had adopted process innovation, 16% of the institutions had adopted product innovation and 14% of the institutions had adopted institutional innovation. This implies that the most adopted innovation strategy was the process innovation. This had enabled the banks to serve more clients within a shorter time and this boosts financial performance over time.

4.2 Product Development

Table 4. 1: Types of product development strategies adopted by the institutions

Products	Frequency	Percentage
Pay bill	32	86
Top up	2	5
Withdrawal and Deposit	3	8
Total	37	100

The study sought to find out the types of product development strategies adopted by the mobile institutions in conjunction with the financial incitutions to improve product in mobile banking. According to the findings, 86% of the banks indicated that product development strategies adopted by the institutions was withdrawal and deposit, 8% of the respondents indicated that product developmentstrategies adopted by the institutions was pay bill service where banks now make it easy for customers to access financial cervices eg make loan payments,pay creditcard debts and bills etc and 5% of the respondents indicated that product innovation strategies adopted by the institutions was top up.

4.3 Process innovation

Figure 4. 2: Types of process innovation strategies adopted by the institutions
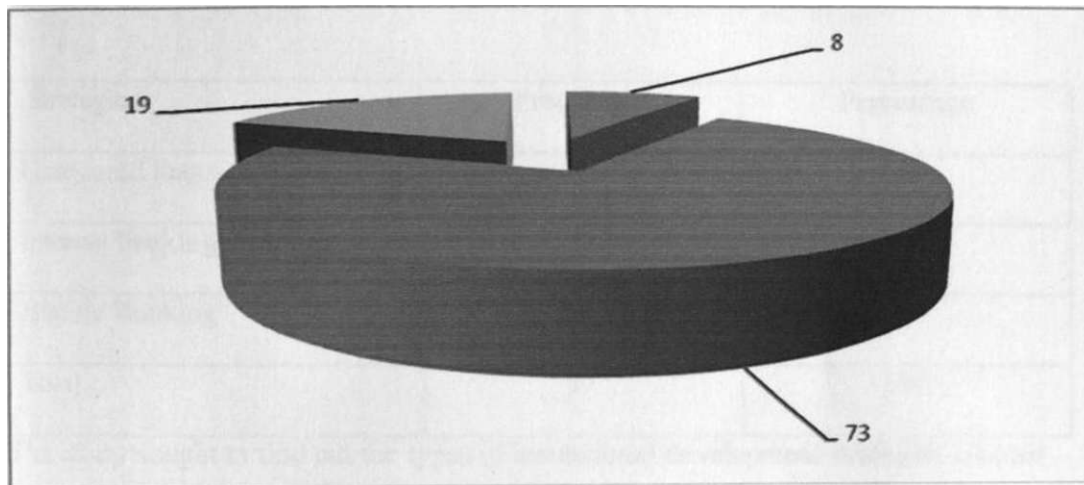
The study sought to find out the types of process development strategies adopted by the institutions. According to the findings, 73% of the banks records it shows that the institutions used mobile banking process innovation, 19% of the respondents indicated that the institutions used credit rating bureau process development and 8% of the respondents indicated that the institutions used business club process development.

4.4 Organization innovation

Table 4. 2: Types of institutional development strategies adopted by the institutions

Strategies	Frequency	Percentage
Unsecured loans	15	41
Internet banking	20	54
Islamic Banking	2	5
Total	37	100

The study sought to find out the types of institutional development strategies adopted by the financial institutions. According to the findings, 54% of the respondents indicated that the institutions had internet banking, 41% of the respondents indicated that the institutions had unsecured loans and 5% of the respondents indicated that the institutions had islamic banking.

4.5 Use of Mobile banking

Table 4. 3: Extent that the bank made use of Mobile banking in its operations

Financial service	N			TT	ir	Mean	Stdev
Withdrawal and deposit	2	3	5	35	55	4.38	0.1
Pay bill	0	2	6	30	60	1.56	0.3
Top up	2	3	10	15	75	2.12	0.2
Atm Withdrawals	0	10	25	30	35	2.4	0.4

The study sought to find out the extent that the bank made use of the mobile banking in its operations. According to the findings, the bank made use of mobile banking to a great extent as shown by a mean of 4.38, the bank made use of ATM withdrawals to little extent as shown by a mean of 2.4, the bank made use of top up service to little extent as shown by a mean of 2.12 and the bank made use of pay bill to little extent as shown by a mean of 1.56.

Figure 4. 3: Adoption of mobile banking is very important in the improvement of financial processes of commercial banks
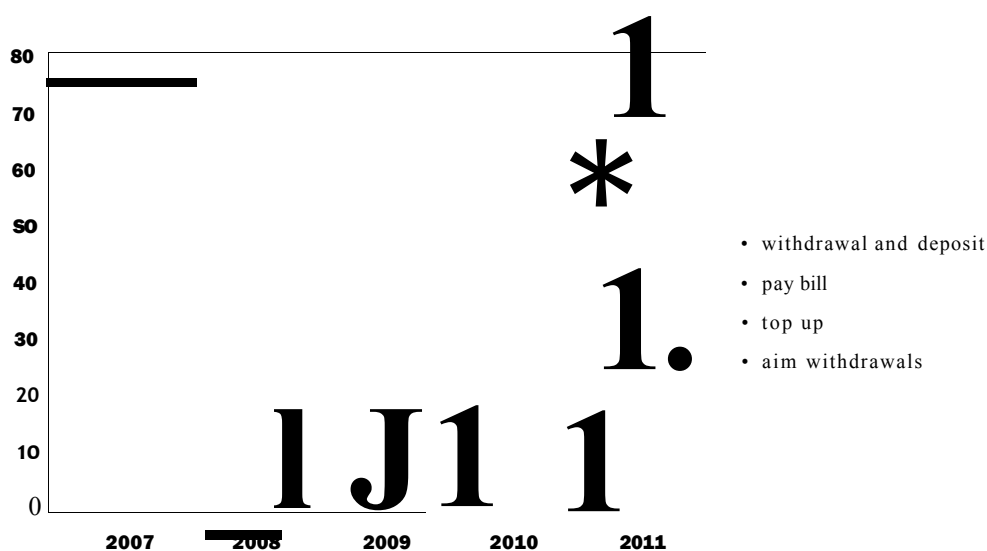
The study sought to find out the the banks agreement level with adoption of mobile banking being very important in the improvement of financial processes of commercial banks. According to the findings, 54% of the banks find that use of mobile banking is very important in the improvement of financial processes of commercial banks and it has increasingly grown over the 5 years, 24% of the banks agreed that at year four mobile banking was adopting well financial processes of

commercial banks, in year three at 14% atm withdrawals, 8% and 4% respectively for year two and one.

4.6 Correlation and the Coefficient of Determination

The table below presents the correlation (R) and the coefficient of determination between financial performance of banks (dependent variable) and the independent variables (technological, market, process and product). From the findings, the study found that there was a positive relationship between the dependent variable and the independent variables (technological, competition, process and product).

Of all the four independent variables, technology had the highest relationship with the financial innovation of banks of 0.475 followed by product with 0.430. Market came third with a correlation value of 0.428 while process had the weakest relationship with the financial performance in commercial banks of 0.326.

The study sought to find out the extent that the bank focused its mobile banking strategy on the areas. According to the findings, the bank focused its mobile banking strategy on technology to a great extent as shown by a mean of 4.05, the bank focused its mobile banking strategy on marketing to a great extent as shown by a mean of 3.9, the bank focused its mobile banking strategy on customer care to a great extent as shown by a mean of 3.5 and the bank focused its mobile banking strategy on human resources to a great extent as shown by a mean of 3.5.

The institution can employ more innovations on customer care and technology. The bank can put in place measures to improve its operations and become more competitive by training its staff, investing in high technology as well as research and development and listening to the needs of its clients.

As afore mentioned, of all four predictors to financial performance of banks, technology had the highest coefficient of determination (strength of relationship between technology and the banks mobile banking) of 0.226 while product, market and process had the value of 0.185, 0.183 and 0.106 respectively.

Table 4. 4: Correlation and the Coefficient of Determination

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
Market	0.428	0.183	0.149	0.8125
Product	0.430	0.185	0.151	0.8825
Process	0.326	0.106	0.069	0.8825
Technology	0.475	0.226	0.194	0.8201

Source: Survey Data, 2011

4.7 Coefficient of Determination (R^2)

Coefficient of determination explains the extent to which changes in the dependent variable can be explained by the change in the independent variables or the percentage of variation in the dependent variable (financial performance) that is explained by all the four independent variables (technological, market, process and product).

The correlation and the coefficient of determination of the dependent variables when all independent variables are combined can also be measured and tested as in the table below. From the findings 46.3% of bank's financial performance is attributed to combination of the four independent factors (technological, market, process and product) investigated in this survey. A further 53.7% of banks financial innovation is attributed to other factors not investigated in this survey.

Table 4. 5: Coefficient of Determination

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Sig.
1	.681(a)	0.463	0.361	0.752	0.04

Source: Survey Data, 2011

4.8 Multiple Regression Analysis

The researcher conducted a multiple regression analysis so as to determine the relativity between the bank's financial performance and the four attributes investigated in this survey. The regression equation $(Y = P0 + piX| + p_2X_2 + p_3x_3 + P4X4+ e)$ was:

$Y = 0.853 +0.205X, + 0.169X_2 + 0.156X_3+ O.I28P4X4+O$

Whereby   Y = Mobile banking in the bank

        Bo = Regression constant

        Xi = Technological

        X_2 = Product

        X_3 = Market

      X4 = Process

       e = Error term

According to the regression equation established, taking all factors (technological, market, process and product) constant at zero, the mobile banking of the bank as a result of these independent factors (innovation strategies) will be 0.853. The data findings analyzed also shows that taking all other independent variables at zero, a unit increase in technological development will lead to a 0.205 increase in financial

performance of the bank as usage of mobile banking will be more effective and efficient. A unit increase in product development will lead to a 0.169 increase in the financial performance of the bank; a unit increase in market development will lead to a 0.156 increase in financial performance of the bank while a unit increase in process development will lead to a 0.128 increase in financial performance of the bank. This therefore implies that all the four variables have a positive relationship with technological development contributing more to the financial growth of the bank, while process development contributes the least to the financial growth of the commercial banks of Kenya.

At 5% level of significance and 95% level of confidence, market development strategies had a 0.048 level of significance, product development had a 0.042 level of significance, process development showed a 0.038 level of significant, while technology showed a 0.021 level of significance hence the most significant factor in influencing financial performance in the institution.

Table 4. 6: Multiple Regression Analysis

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	**Std. Error**	**Beta**		
(Constant)	0.853	1.068		0.799	0.043
Market	0.156	0.203	0.135	0.619	0.048
Product	0.169	0.193	-0.08	-0.358	0.042
Process	0.128	0.250	-0.242	-0.891	0.038
Technology	0.205	0.16	0.346	1.284	0.021

Source: Survey Data, 2011

Dependent Variable: financial innovation of the banks

CHAPTER FIVE

SUMMARY OF THE FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The chapter provides the summary of the findings from chapter four, and it also gives the conclusions and recommendations of the study based on the objectives of the study. The objectives of this study were to determine the relativity between mobile banking and financial performance of commercial banks in Kenya.

5.2 Summary of the Findings

The study aimed at investigating the relativity between mobile banking and financial performance of commercial banks in Kenya.

The study found that 70% of the institutions had adopted process development. 86% of the respondents indicated that product development strategies adopted by the institutions was deposits and withdrawals via mobile banking.73% of the banks indicated that the institutions used pay bill in mobile banking process development. 54% of the respondents indicated that the institutions had top up via mobile banking. The bank made use of mobile banking to a great extent as shown by a mean of 4.38, the bank made use of ATM withdrawals to little extent as shown by a mean of 2.4, the bank made use of top up to little extent as shown by a mean of 2.12 and the bank made use of to little extent as shown by a mean of 1.56. The bank focused its financial development strategy on technology to a great extent as shown by a mean of 4.05, the bank focused its financial development strategy on marketing to a great extent as

shown by a mean of 3.9. the bank focused its financial development strategy on customer care to a great extent as shown by a mean of 3.5 and the bank focused its financial development strategy on human resources to a great extent as shown by a mean of 3.5. The institution can employ more innovations on customer care and technology. The bank can put in place measures to improve its operations and become more competitive by training its staff, investing in high technology, research and development and listening to the needs of its clients.

5.3 Conclusions

The study concludes that the financial institutions had adopted process development in mobile banking. Product development strategies adopted by the institutions were paybill by use of mobile banking process innovation. The institutions have internet banking which is slowly growing. The banks made use of mobile banking to a great extent using of mainly the Mpesa options where ATM withdrawals have become popular.Adoption of Mobile banking in our financial institutions is very important in the improvement of financial capital adequacy of commercial banks. Commercial banks are adopting mobile banking to improve their operations and reduce costs in the long run and increase their earnings. The bank focused its mobile banking strategy on technology to a great extent.The bank can put in place measures to improve its operations and become more competitive by training its staff, investing in high technology and listening to the needs of its clients.

5.4 Recommendations

5.4.1 Recommendations for Policy

The study recommends that the regulator (Central Bank of Kenya) should create an enabling environment that will enhance innovations in the banks and mobile communication companies so that they realize the full benefits of innovation and developmental strategies. Through compliance with the regulations and policies the banks will realise profitability as a result of process, product, market and technology innovations among others which without a proper policy the banks would not operate effectively and efficiently in the market to realize profits.

5.4.2 Recommendations for Practice

From the findings and conclusions in this chapter, the study recommended that for all the commercial banks to earn more profit, increase number of customers, for their business to grow further and also for them to invest more they should embrace the adoption of market developmental strategies. The findings in the earlier studies also recommends that customer satisfaction and retention market strategy, aggressive anti-competitors marketing campaigns, entry into new markets while consideration of availability of resources and capabilities as market innovation strategies, environmental analysis and response to changes and creation of value through pricing, is critically important if the aim is to develop the profitability of a business to the full.

The study also recommends that the banks should also strive to ensure product range extension, product replacement, product improvement, product repositioning and new product introduction to enable the banks to be more productive, to grow faster, to

invest more and also to earn more profit. The product development strategies can be effectively adopted if there are quality systems in place, there is good information flow, there is specialization and also if the management fully supports the competitive strategies. The power of product development in helping companies retain and grow competitive position is indisputable.

The study also recommended that commercial banks should ensure new products introduction, reduction of costs, improved innovation process and conformance to regulations are used to influence profitability of the bank. This will help the tap into customers' needs so well that new products generate their own source of marketing momentum. The bank should establish that there are staffs available in good time to serve the customers efficiently, use of technology innovation to promote a friendly and help staff hence customer satisfaction, less time is required at the service point due to innovations in the bank and the innovations ensure that the services given to customers are of high quality.

The study also recommends that the firms also should ensure that they adapt the new technology in order to cope with the fast changing technology[1]. Technology innovation encourages ease of flow of information and fast delivery to the intended persons. For efficient adoption of technology innovation strategies, there should be reliable infrastructure, enough financial resources; and the staff should be equipped with adequate skills and knowledge on the new technology through regular training in order to ensure that they do not resist the adoption of the new technology in the bank.

5.4.3 Recommendations for Extension of Theory

The study recommends that research into the theories should be done with an aim of validating the theories to the current operating environment of organizations. This will

pave way for new theoretical advancements to enable application of theory into practice in the organizations.

5.4.4 Suggestions for Further Research

The study therefore suggests that further research should be conducted in all the commercial banks to investigate into the effects of Mobile banking as well as in all mobile communication companies.

Another Study should be carried out to find out the challenges faced by commercial banks when implementing innovation strategies in the mobile banking segment.

In addition, a Study should be carried out to find out the various developmental strategies adapted by the commercial banks in Kenya in relation to the mobile banking

5.5 Limitations of the study

The lack of co-operation from the sampled commercial banks would be the main limitation as it was challenging to get all the periodicals from the institutions due to the confidentiality aspect especially for banks but I was able to explain to them the nature of the information I needed and no confidential documents were needed for this study and the significance of my study to the banking industry as well as the nation's economy as a whole.

The researcher encountered a challenge in securing the employees precious time considering their busy working schedules to have access to the banks internal journals on mobile banking. To counteract this, the researcher made proper arrangements with the staff to avail themselves for the study off-time hours as well as educating the staff on the value of the study.

The researcher also exercised utmost patience and care and in view of this, the researcher made every effort possible so as to acquire sufficient data from the identified financial institutions for study. Since mobile banking is just in its infant stages of development in Kenya there is not a large amount of raw data to collect and work with and so the findings may not represent a likely outcome for a long-term period in the country hence my sample size.

Not many financial institutions have been able to implement the use of mobile banking to customers due to the initial capital required to do so and the funds needed to sustain the service hence the government has been urged to reduce the costs of implementing mobile banking in Kenya and give subsidies to the mobile communication service providers to make the service readily available to all Kenyans as well as educate them on how to properly use the service.

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APPENDICES

Appendix I: Commercial Banks in Kenya

1. ABC Bank (Kenya)
2. Bank of Africa
3. Bank of Baroda
4. Bank of India
5. Barclays Bank
6. Chase Bank (Kenya)
7. Citibank
8. Commercial Bank of Africa
9. Consolidated Bank of Kenya
10. Cooperative Bank of Kenya
11. Credit Bank
12. Development Bank of Kenya
13. Diamond Trust Bank
14. Dubai Bank Kenya
15. Ecobank
16. Equatorial Commercial Bank
17. Equity Bank
18. Family Bank
19. Fidelity Commercial Bank Limited
20. Fina Bank
21. First Community Bank
22. Giro Commercial Bank
23. Guardian Bank
24. Gulf African Bank
25. Habib Bank
26. Habib Bank AG Zurich
27. l&M Bank
28. Imperial Bank Kenya
29. Jamii Bora Bank
30. Kenya Commercial Bank
31. K-Rep Bank
32. Middle East Bank Kenya
33. National Bank of Kenya
34. NIC Bank
35. Oriental Commercial Bank
36. Paramount Universal Bank
37. Prime Bank (Kenya)
38. CFC Stanbic Bank
39. Standard Chartered Bank
40. Trans National Bank Kenya
41. United Bank for Africa
42. Victoria Commercial Bank
43. Southern credit bank
44. Daima Bank