

**TECHNOLOGY ENABLED BANKING SELF SERVICES AND
PERFORMANCE OF COMMERCIAL BANKS LISTED IN THE NAIROBI
SECURITIES EXCHANGE**

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DECLARATION

This research project is my original work and has not been presented for the award of degree in any other university or institution for any other purpose.

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

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DEDICATION

I dedicate this project to my dear husband Jude Orwa and my loving children Enrique Dande and Wanda Orwa for their moral support and understanding during the entire period I was working on this project.

To my loving parents for believing in me and encouraging me to further my education at a time when I needed encouragement most. Not to forget my mother in law, Dr. Mary Otieno who is a role model academician that I looked up to for encouragement.

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The process of this study has been an experience full of valuable learning's both in my career and academic life. Though marred with challenges, the rewards are indeed worth every effort. Completion of this study is a worthy milestone in my career and in line with my ambitions. It brings to me content and fulfillment especially looking at how long it has taken and the life lessons that comes with every part of the process.

Profound gratitude to my supervisor, Dr. Winnie Njeru for her coaching, valuable insights and strictness in guiding me through the process with so much patience. It's my prayer that God grants her good health to continue in this legacy. Not to forget Professor Zack Awino and Professor Ogutu to who am thankful for their corrections, continuous encouragement, support and guidance in writing this project. I remain indebted, to my boss at my place of work for allowing me flexibility to attend to project matters and to my colleagues and respondents who made this study possible thereby enabling me complete my MBA course successfully.

ABSTRACT

Information technology advancement is changing the marketing landscape of goods and services, such that service sectors like banks have increased the use of self-service technologies (SSTs) as one of the most important drivers of a firm's level of competitive advantage. By a firm adopting technology based strategy, they will be able to achieve increased customer satisfaction, cost reduction, and faster service delivery with increased reliability. The objective of the study was to determine the influence of self-service technology strategy on performance of commercial banks listed in Nairobi Securities Exchange. The study adopted a descriptive cross sectional research design and population of the study comprised of all the eleven commercial banks listed in the Nairobi Securities Exchange. The study used primary data and secondary data. The data was analyzed using descriptive statistics and regression analysis was used to assess relationship between self-service technology strategy and performance of listed commercial banks. The study found that SSTs such as internet banking, ATMs, Smart cards, credit cards and mobile banking were important for the commercial banks as they have resulted in improved service delivery, reduced operating costs, convenience to customers and are mostly secure. SSTs adoption by banks was found to have resulted in efficiency in serving customers thus increasing market share through customer numbers and impacting revenue positively through uptake of bank products. Regression analysis used established that there is a relationship between self-service technologies and performance of commercial banks listed at the Nairobi Securities Exchange. The study therefore recommends that commercial banks consider intensifying self-service technologies for better accessibility thus improving financial performance. Uptake should be affordable and deemed secure to encourage a culture of adoption and acceptance by customers thus ensuring the future sustainability of self-service technologies as a workable strategy for competitive edge.

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ABBREVIATIONS AND ACRONYMS

ATM - Automatic Teller Machine

IT - Information Technology

SST - Self-Service Technologies

CBK - Central Bank of Kenya

KBA- Kenya Bankers Association

RMT- Resource Matching Theory

TRA- Theory of Reasoned Action

IB- Internet Banking

MB- Mobile Banking

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Information technology advancement is changing the marketing landscape of goods and services, such that service sectors like banks have increased the use of self-service technologies. (Vargo & Lusch, 2004). Technology has appealed to service providers due to standardized service delivery; reduced labor costs and expanded options for delivery to the customer. Self-service technology are interfaces that enable customers get services independent of direct employee involvement and therefore as a strategy, SSTs are expected to increase a firms level of competitiveness, cost efficiency, enhancement of service quality and attraction of new customers as compared to firms that will not have adopted the strategy for service delivery. The banking sector have come a long way and the mechanization of this sector has added fuel to the entire process of transformation of the industry, which now aspires to serve the world at large instead of confining itself to a particular sector (Dabholkar & Bagozzi, 2010). Therefore in a world with a cut-throat competition and which is characterized by an enlightened customer base, banks can use technology based service delivery platforms to increase their customer level of satisfaction and therefore increase their competitiveness in comparison with the other players in the market.

This study is based on Resource-Matching Theory (RMT) and the Theory of Reasoned Action (TRA). RMT describes the conditions of achieving cognitive tasks. (Anand & Sternthal, 2010). Emphasis is on the fact that consumers have specific cognitive resources to process information and information related tasks. It further indicates that more cognitive resources will be required where more mental elaboration is demanded in the tasks. Theory of Reasoned Action has been applied in understanding consumer attitudes and generally describes the attitude of consumers, how their attitudes are formed and how other potential customers they interact with influence

their behavior in adopting any new technology. The influence of intention is attitude and subjective norm that an individual has while the component of attitude is beliefs (Meyers-Levy & Peracchio, 2010). Stronger intentions lead to increased effort to perform the behavior as well as likelihood of the behavior being performed.

Kenyan banking industry has lately witnessed an increased activity in terms of level of competition and to compete effectively, there has been a major focus to operationalize improvements with a view of minimizing the resulting impact on attrition, dormancy and loyalty, and in the process achieve a benefit in terms of their costs of service. In a bid to stay ahead of competition, most banks have resorted to adopting technology based self-service channels that promise to remove the constraint of time, distance and communication. Adoption of SSTs in Kenyan banking sector has been slow due to more complex and less compatible systems that are not compatible with the existing values and behaviors of mature consumers. This indicates that some customers perceive greater benefits from SSTs, while others perceive greater benefits from banking through face-to-face (Bateson, 2010).

1.1.1 Self –Service Technology

Self-Service Technologies refer to access to banking transactions by use of technology as medium (Zeleny, 2009). It enables customers to perform transactions without visiting a bank's branch. This makes Intelligent ATMs, credit cards, smart cards, Internet banking (IB), Mobile banking (MB) and most recently banking applications downloaded from the mobile play store. SSTs make businesses continuously available for the consumers' convenience and comfort (Meuter & Bitner, 2008). Devlin (2010) referred to the banking industry as amongst pioneers in adoption of automation services. The players have recognized that technology innovation offer opportunities to differentiate themselves from competitors. Banks have adopted self-service

technology of various types which are availed to customers independently to meet their needs without them having to interact directly with any bank employees (Meuter et al., 2010).

Introduction of SSTs in service delivery are aimed at benefiting the customer; this requires increased involvement by the customer. These factors may discourage the customer from trying out the technology (Honebein & Cammarano, 2005). The attitude of the customer towards SSTs will determine. Satisfaction with service delivery through SSTs is commonly viewed as a useful gauge for effectiveness by the customer. This should result in customer satisfaction and retention which eventually should impact performance through growth of customer numbers and increase in value per customer (Lewis & Mitchell, 2014).

1.1.2 Organizational Performance

According to Gibson and Singhal, (2010) organizational performance refers to the achievement by an organization seen through measures such as achieved targets, period of time for achieving the targets and realized efficiency and effectiveness. Organizational performance can be measured using financial and non-financial terms. Financial terms refer to productivity of an enterprise measured through revenue growth, profit, and market share compared to other enterprises in the same industry. Financial performance can also be evaluated by efficiency and effectiveness of controls that results in cost savings. Venkatraman and Ramanujam (1986) cited that performance can be measured through financials, such as return on a firm's investment, growth of sales, and profit over a defined period, organization effectiveness and overall business performance.

Non-financial organization performance looks at quality of service and products alongside innovations of both in relation to customer satisfaction, retention and loyalty. This is measured through growth in customer numbers and value per customer. It also considers attainment of

workers satisfaction that increases productivity (Gibson & Singhal, 2010). Organization performance can therefore be well summarized by looking at the four dimensions of Balanced score card that is, financials, customer satisfaction, controls efficiency and productivity.

1.1.3 Commercial Banks in Kenya

Banks form a significant part of business sector worldwide that plays a crucial role in global economies. Banks in Kenya are financial intermediaries that act as financial resource mobilization points in the economy. This is by way of channeling of much needed funds by business and households from surplus spending sectors to deficit spending sectors in the economy. A well-developed and efficient banking sector is an important requirement to facilitate rapid economic growth in any given economy. There are forty three banks as categorized by Central Bank of Kenya and members of the clearing house. Majority of these banks are either small to medium sized, and are locally owned.

Of the 43 banks, eleven are listed on the Nairobi Securities Exchange. The listed companies are those whose shares are traded freely in the financial markets, because the shares are not subject to restrictions that limit their transferability. Listed banks employ various legal forms to govern their systems and usually undergo many challenges including financial and governance issues. In order to enhance depositors' confidence, there is need to introduce effective self-service technology strategy which will ensure competitive advantage in their businesses that eventually impacts performance positively.

1.2 Research Problem

Self-service technology has become an important driver of a firm's level of competitive advantage today. This is because in a firm adopting technology based strategy, they will be able to achieve increased customer satisfaction, cost reduction, and faster service delivery with

increased reliability. Therefore, technologies can increase productivity, growth rate and improvement in the quality of service. Parasuraman and Grewal (2000) further noted that the use of technology appeals to service providers because it can standardize delivery of service, reduce the cost of labor and expand delivery options. Banks find SSTs important due to the promise of cost efficiencies, improved service quality, and attraction of new customers as compared to other modes of service.

For banks to be important in their processes is by coming up with technological innovations that would ensure that customers undertake their banking operations without visiting the bank branches. From the above studies, the effect of self-service technology on organizational performance has received limited attention in light of dynamic environment and increasing regulatory pressure as experienced in the Kenyan market.

International studies have been undertaken on the need of self – service technology adoption strategy. DeYoung, Lang and Nolle (2010) examined the influence of self-service technologies by studying United States of virtual click and mortar banks with brick and mortar banks. Their findings concluded that self-service technologies improved the performance of banks hence increasing their revenues.

Regional studies that have been undertaken on the self-service technology include Chibueze, Ogbulu and Ndugbu (2012) study on the effect of self-service technology on bank performance in Nigeria. The study established that self-service technology has improved performance of Nigeria banks significantly by greatly enabling banks to reduce paper work thereby operating in more reduced paperless environment. Ndlovu and Siyavora (2014) researched on the impact of self-service technology on performance of Zambian Banking sector. The study revealed that self-

service technology improved performance and efficiency of banks thus resulting in overall decrease in operational cost, total cost of employment and expenses incurred on fixed assets.

Locally, Kamande (2011) researched on evaluation of retail bank clients' subjective reception to technology based self-service bank products in Kenya. The findings of the study were that there exist at least five perspectives on SST usage in banking. These perspectives are laggards, technogenics, personalized service disposed clients, ad-hoc SST users and security conscious convenience seekers. The different perspectives revealed the diversity in perception that these users have and as such the need for diverse marketing programs to support these users adoption of SST based on their profiles. Masabo (2013) study on self-service technology and customer satisfaction among commercial banks in Kenya established significant relationship between self-service modes such as ATMs, internet banking, mobile banking and customer satisfaction in Kenyan banks. Therefore, the present research seeks to answer the following research question: What is the influence of self-service technology strategy on the performance of commercial banks listed in the Nairobi Securities Exchange?

1.3 Research Objectives

To determine the influence of self-service technology strategy on performance of commercial banks listed in Nairobi Securities Exchange.

1.4 Value of the Study

The findings of the study will add new knowledge to the theory and business practices. The results are able to confirm the legitimacy of the underlying theories used in the study namely the resource-matching theory and theory of reasoned action, and justify their use in the study. This research framework unpacks the knowledge-resource construct to better understand the nature

and antecedents of performance an organization might derive from self-service technology strategy.

Bank institutions' managers will use findings of this study to identify the appropriate areas of target to drive acceptance of the technology-enabled self-services by the consumer in order to attain wide spread usage and acceptance. They could also introduce effective strategies that promote and create awareness on these services to the identified areas. The management of commercial banks in Kenya will be able to adopt self-service technology strategy to enable the bank counter operating challenges emanating from the globalization and changing operating environment. This study will help analyze quality issues around technology based banking thus help banks to introduce strategies that improve the quality of service through better design and provisioning thereby improving customer acceptance.

Findings of the study will benefit policy makers of commercial banks such as Central Bank of Kenya and Kenya Bankers Association in understanding the self-service technology strategy merits as a source of competitiveness and therefore a requirement for future success in the industry. In addition, the findings of the study will form part of the action plans to guide policy formulations that will help the banks to be innovative in order to gain competitive advantage as they will be able to make informed decisions on issues that will boost client base and ultimately performance.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter summarizes other studies from researchers in the same field of study. It reviews available literature that is relevant, focusing on theoretical framework and influence of self-service enabled technology strategy on performance of commercial banks.

2.2 Theoretical Framework

This study is anchored on theory of Reasoned Action and Resource Matching Theory as discussed below:-

2.2.1 The Theory of Reasoned Action

According to Fishbein (2005) the theory recognizes the fact that there are issues that can limit the impact of attitude on behavior. The theory forecasts behavioral intention, a conciliation between attitude forecasts and actual forecast of behavior. The theory tries to explain the connection between beliefs, attitudes, intentions and behavior. The theory has been applied in an attempt to understand consumer attitudes. It provides an elaborate picture of why, when, and how attitudes predict behavior, Cherry (2006). The theory describes how other likely customers interact which influence their general behavior. It places intention as the immediate driver of one's behavior, meaning that the stronger a customer's intention the more likely the occurrence of the corresponding behavior. The influence of intention is attitude which is a subjective norm that an individual has while the conceptualized beliefs and the perceived pressure from noticeable referents one-sided by the motivation to comply (Bateson, 2010).

2.2.2 Resource-Matching Theory

The theory defines situations for achieving perceptive tasks best way possible. (Anand & Sternthal, 2010). It suggests that consumers have specific possessions to process information and

carry out required tasks. These specific or cognitive resources increase with increase in need for conceptual embellishment required in the tasks. It is well documented that the gaudiness of an incentive message affects favorable judgment. (Meyers-Levy & Peracchio, 2010).

The theory proposes that efficiency of SST adoption. The theory states further that personal traits or characteristics may influence a customer's involvement in information tasks (Peracchio & Meyers-Levy, 2010). The theory therefore offers a new perspective that defines human-to-machine interactions. This is due to steering the interactive feature or comparing service choices both of which involve mental effort. Clienteles gain when they have sufficient resources to engage in such activities. The theory provides conceptual support by explaining customers' behavior and subsequent control in SSTs (Bateson, 2010).

2.3 Forms of Self- Service Technology

High-tech developments have minimized human error and enabled easy access to banking facilities. Expertise offers customer information at a lower cost to the customer and at individual basis. The forms of self-service technology include:-

2.3.1 Internet banking

This refers to systems that enable customer's access to accounts and general information on bank products and services through a personal computer (PC) or a mobile handset. Internet banking which rely on architecture of the Internet (Cronin, 2010). Internet banking represents innovation process because of the technological developments involved that improve the operational procedures.

Introduction of Internet-based technology systems is seen as part of cost reduction strategy despite the need for investment in substantial technological and marketing that comes with it and requirement to recruit new technological experts. Online banking has emerged as noble way of

offering banking service to the people (Cronin, 2010). The technology has emerged as the most potential medium for banking as it can overcome all barriers to entry in the traditional banking system.

2.3.2 Automatic Teller Machine

Automatic teller machine (ATM) minimizes amount of time required to fill a single packet (Laforet, 2005). An identification code is then transmitted to the bank's central computer through a communication link. PIN prevent fraudulent access followed by the computer permitting the ATM to complete the transaction as requested by the user.

A well-conceived strategy on ATM service directs attention of the organization towards the real priorities of the customer. It is at this stage slogans are formed. The company slogan should be easily understood and represent the image of the company. ATMs have interbank network connections enabling users to the bank where their accounts are domiciled. This offers convenience especially for traveling as they are able to make withdrawals at locations where one's own bank has no branch. This includes withdrawal of a better exchange rate compared to foreign exchange bureaus.

At present day, most ATMs use much cheaper dedicated high-speed Internet connections compared to leased lines. There is need for banking industry to identify, select, and evaluate new technologies by incorporating effective modes into the organization. The ever changing technology presents a challenge to banks and the banks must adopt new technologies and do away with the obsolete technology to keep up. The banks have to provide customers 'convenience like 'new' Automated Teller Machines (ATM's) and provide customers with services such as online transactions and online shopping (Hammer, 2010). This term 'new'

explains the emergence of intelligent ATMs that accept deposits, performs money transfer functions amongst other advanced functionalities.

2.3.3 Smart Cards

Smart card is a plastic type of chip containing an embedded computer chip which stores and transacts data. The data on the card is transacted via a reader which is part of smart cards are in use today through several key applications and include healthcare, banking, entertainment, and transport. The cards use more secure encryption and authentication technology modes as compared to previous payment modes. At the heart of the smart card is a microprocessor chip that is embedded and that can be programmed for specific industries (Cronin & Taylor, 2008).

Smart cards used in banking industry enable users the freedom to carry large sums of cash around without fear or anxiety of possible theft of their money. Safety is also due to the fact that the cards can be easily replaced and one needs to know personalized PIN number to access stored value from the card. This cannot be compared to cash which once stolen is nearly impossible to be traced or recovered. The smart card helps businesses to expand over the years to include applications in varied markets, industry and disciplines. More recently, the information age has necessitated introduction of a smart card security applications and features (Walker & Johnson, 2009). Performance and speed are critical factors to be considered in most smart card applications. To drive this, transistor scaling which refers to the reduction of the size of the switch that turns transistors on and off must be taken into consideration.

2.3.4 Credit Cards

Cards allow users a continuing balance of debt which is charged a curtailed interest fee as pre agreed. Credit cards play an important role both to the consumers and the banking businesses. It is a very important tool for exchange and transmission of funds from the cardholders to the

businesses and also serves to improve customer service through convenience as most are globally accepted.

Further, Robert (2007) noted that in modern business transactions, credit cards are increasingly becoming an essential tool and it offers a cardholder convenience, safety, higher purchasing power and a range of fringe benefits as most cards are issued with a number of privileges such as VIP lounge access and redeemable air travel miles. Credit cards are attractive to banks due to higher risk-adjusted returns they provide compared to other loan types. A Card issuer will earn income through charging cardholders fees and interest on outstanding balances. The issuer will also discount the charges that a merchant accepts on purchase which is usually referred to as interchange (Johnson, 2010).

2.3.5 Mobile Banking

Mobile banking is a financial service delivered via a mobile network using mobile phones. Such services are varied and include deposits, withdrawals, sending or saving of money and payments (Cronin & Taylor, 2008). Technology in mobile phones has been improving at tremendous speed over the last decade. Many sophisticated financial services have been added to mobile phone functionality. Today's mobile phones can store money in form of information in the SIM card or memory card as well as transfer cash value from one individual to another real time virtually (Hamdi & Helmi, 2011).

Mobile banking includes m-payments that involve access to banking services by use of mobile device. Such services include account-based savings or basic transactional products offered by banks at reduced costs. The channel allows formation of new relationships with the financial sector by new entrants and subsequent distribution of services thereby it uses existing mobile communications infrastructure with existing wide reach to unbanked persons. M-banking system

allows users to store currency in an account accessible via the mobile phone provided there exists a bank account that can be linked (Sujan, 2009). M-Banking is also seen as efficient in terms of entry costs for instance the absence of charges are at the time of registration. M-Banking customers view enrolling into a banking facility as a necessary convenience and therefore attach high consideration to any costs thereof. The absence of registration costs boosts their preference for the service.

2.4 Self-Service Technology and Organizational Performance

The importance of service delivery, need for improved satisfaction, retention of customers, improving sales and need to increase market share in order to improve corporate image cannot be overstated (Lewis & Mitchell, 2014). Self Service Technology as an development over traditional banking system reduces the cost of transaction processing, Service providers who adopt SSTs may experience increased customer satisfaction, productivity, improved cost efficiency and ultimately organization performance (Bitner et al, 2009). SSTs allow customers to perform transactions and complete services on their own reducing the need for tellers and thereby saving the associated expenses and costs (Hammer, 2010).

Tanya and Nicola (2006) noted that SSTs provide opportunity to increase accessibility of services, improve competitiveness through increased market share, ensure higher consumer satisfaction and loyalty, and improve productivity. SSTs serve as differentiator that firms can leverage on to improve reputation through technological advancement.

The relationship between SST technology strategy and performance is the key to measure user satisfaction (Pitt et al., 2010). The customer perception of overall service excellence is seen through quality. There exists a rapid advance in technology-based systems which lead to fundamental changes in banking interaction with customers, a trend that is well established in the

service industry. Service providers are increasingly urged to invest in technology to better secure their future in the electronic world (Bitner, 2009)..

The importance of self-service technology strategy on banking seen from improved satisfaction and retention of customers. Self-service technology provides an opportunity to utilize customers as free inputs in increasing productivity in banking industry (Ojasalo, 2009). SSTs can reduce costs and improve efficiency of resources used in the service process resulting in positive impact to customer value (Bitner et al, 2009). Commercial banks acceptance of the self- service option will decide the capacity and utilization of new infrastructure investment.

Anselmsson (2001) examined customer-characteristic and technology-specific factors of service quality in a context of self-servicing at commercial banks. According to Meuter et al. (2010), SSTs are to meet their service needs free of direct service employee involvement. The services that SSTs provide are varied including monetary transactions, self-help and customer services.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter looks at methodology used in the study in order to achieve the research objectives. Areas covered include research design, population of study, procedures of collecting data and the analysis of data.

3.2 Research Design

This study adopted descriptive cross sectional design. Descriptive research design was chosen as it was deemed an appropriate way of collecting data by obtaining opinions, attitudes, behaviors and beliefs by way of answers from selected respondents in order to understand the group or population represented. Descriptive cross sectional research has the advantage of unchanged natural environment that allows respondents to respond in their own time frame.

3.3 Population of the Study

Population of study comprised 11 listed commercial banks as at November 2016. All the said banks participated thus it was a census.

3.4 Data Collection

This study used primary and secondary data. Primary data was collected using semi structured questionnaire that consisted of open ended and closed questions. Open ended questions allowed respondents to answer questions in an elaborate way while closed questions guided respondents on quick responses. Use of questionnaire ensured that confidentiality was upheld, saves on time and was very easy to administer. Two questionnaires were distributed to each bank for the technology and finance managers to fill since they understand the effect that technology has on performance of the banks. Secondary data supplemented primary data.

3.5 Data Analysis

Data analysis was through social sciences statistical software package version 20. This was useful in predicting the future outcome. This acted as an analytical tool for manipulating all the data that was gathered for analysis and presentation. In particular, mean scores, standard deviations, percentages and frequency distribution were used to summarize the responses and to show the magnitude of similarities and differences. Results were presented in tables and charts. A regression model was used to show correlation between the variables being technology and performance. The regression equation assumed the following form

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \alpha$$

Where:

Y is organizational performance;

β_i - are the regression coefficients

X_1 - Internet Banking

X_2 - Automatic Teller Machine

X_3 - Smart Cards

X_4 - Credit Cards

X_5 - Mobile Banking

β_0 = y- intercept

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

The chapter consists of analysis, findings and discussion. Findings are presented in percentages, frequency distributions, mean and standard deviations.

4.2 Response Rate

Total of 22 questionnaires were issued and 16 responses received. This represented a response rate of 73% which was adequate for data analysis purposes and well conforms to Mugenda and Mugenda (2003) assertion that a response rate of 70% and above is adequate.

4.3 Demographic Information

This was considered in this study under areas of age, gender, level of education and length of continuous service.

Table 4.1 Demographic Information

Category	Item	Frequency	Percentage	Cumulative percentage
Gender	Male	7	43.8	43.8
	Female	9	56.3	100.0
Respondent ages	31-40 Years	6	37.5	37.5
	41-50 Years	7	43.8	81.3
	Over 51 Years	3	18.7	100.0
Level of education	Certificate/diploma	5	31.2	31.2
	Bachelor degree	8	50.0	82.2
	Master's degree	3	18.8	100.0
Length of continuous service	Less than 5 years	3	18.8	18.8
	5 – 10 Years	4	25.0	43.8
	Over 10 Years	9	56.3	100.0

(Researcher, 2016)

Results on the respondents age was that 56.3% were female while 43.8% were male. This showed majority as female respondents although the male and female difference was not significant and therefore this implies that the study was not influenced by gender imbalance. The study indicates 43.8% of the respondents said that their age was between 41 and 50 years; 37.5% of the respondents indicated their age to be 31 and 40 years while 18.7% of the respondent said that their age was over 51 years. Results indicate that majority of respondents were aged above 40 years. Respondents' level of education showed that 50% of the respondents were bachelor degree holders; 31.2% of the respondents indicated their highest level of education as certificate/diploma while 18.8% of the respondent said that master degree was their highest level of education. Results indicated that majority of respondents had attained degree level of education implying sufficient knowledge on importance of self-service technology to the banks.

Respondents who are diploma/certificate holders can be attributed to majority of the respondents being over 40 years who were employed in the bank with the level of education they had that time and have not advanced their education. Results show 56.3% of respondents having worked in the commercial bank for over 10 years while 25.0% of the respondents worked in the bank for a period between 5 to 10 years. Further 18.8% from the respondents worked in the commercial bank for less than 5 years. Results indicate majority of respondents have worked in the commercial banks for a long time therefore understand the dynamics of the banking industry that has seen banks adopt self-service technology as a strategy for competitiveness in the market by improving their performance. The respondent strongly acknowledged that commercial banks had resorted to using self service technology to reduce number of customers visiting the bank as well as remain competitive in the industry. Self service technologies used were indicated as automatic teller machines , mobile banking, internet banking, credit cards and smart cards.

4.4 Self- Service Technology forms

Competition in Kenyan banking sector has seen commercial banks adopt different strategies in order to be competitive.

4.4.1 Internet banking

This form of SST allows customers to interact more with front office operations allowing the bank to concentrate on back office operations thereby increasing efficiency. Results are presented in Table 4.2 below.

Table 4.2 Internet Banking

Internet banking	Mean	Std. Deviation
Internet banking has led to innovation of banking products and consequently leading to a process of innovation to improve exclusively the operational procedures	4.125	.718
Online banking has emerged as noble way of offering banking service to the people.	4.062	.928
Internet banking is an innovation in the processes of service delivery and distribution of financial services.	3.937	.771
Internet banking allows increased customer interaction at front office resulting to a satisfied workforce	3.750	1.183
Internet banking forms a set of technological solutions for development and the distribution of financial services	3.625	.885
Internet banking reduces cost of personnel, in the short run	3.562	.727

(Researcher, 2016)

The result show that internet banking was being used by the commercial banks and has improved process of innovation especially the operational procedures (M=4.125); processes of service delivery and distribution of financial services (3.937) and enabled customers to interact with front office operations and therefore resulting in a satisfied workforce (M=3.75). Thereby

reducing the cost of personnel in the short term (M=3.562). The low standard deviation variation indicates that respondents were in agreement on importance of internet banking. Results show internet banking was important for the commercial banks as it has resulted in improved processes of service delivery enabling the bank reduce its operating costs. At the same time the interaction of the customers with the front office operations results in a satisfied workforce.

4.4.2 Automatic Teller Machine

Automatic teller machines enable the respondents to transact by use of cards which needs the user to insert their Personal Identification Number. The results on the use of automatic teller machine technology were presented in Table 4.3.

Table 4.3 Automatic Teller Machine

Automatic Teller Machine	Mean	Std. Deviation
ATM reduces waiting time for service	4.250	.774
Funds transfer is faster compared to manual transfer system.	4.250	.683
ATM is convenience for people who are traveling	4.125	.885
It allows withdrawals at locations where one's bank has no branches, and withdrawal of local currency in a foreign country	3.875	.885
ATM Password facility provides confidentiality to transaction	3.875	.957
ATMs have network connections, that enable users to withdraw and deposit money abroad	3.625	1.024
ATM service directs attention of the organization towards the real priorities of the customer that includes withdrawals and deposits	3.562	1.093

(Researcher, 2016)

The results indicate that ATM technology has been put in place by the bank and it results in reduced waiting time for service (M=4.25); funds transfer is faster compared to manual transfer

system (M=4.25) and that it is convenient for those traveling abroad (M=4.125). The respondents further said that customers are able to make withdrawals at locations where the bank does not have branches and withdraw local currency in a foreign country (M=3.875); the interbank network enables customers to withdraw and deposit money from machines (M=3.625) and that the ATM service directs attention of the organization towards the real priorities of the customer that includes withdrawals and deposits (M=3.562). The results show that automatic teller machine technology has been put in place by the bank and it results in decreased number of people visiting the bank to make withdrawals/deposit, enable customers to make their transactions whenever they are even without the bank having a branch there and that the system is faster compared to the manual system.

4.4.3 Smart Cards

Respondents were requested to indicate extent to which smart card technology usage had been rolled out in their bank.

Table 4.4 Smart cards

Smart cards	Mean	Std. Deviation
The card enables businesses to innovate and expand their products and services in a dynamic global market	4.187	.655
Smart cards are secure, compact and intelligent data carriers and therefore secures more customers data	4.062	.680
Smart card gives users freedom to carry large sums of money around without feeling anxious about possible theft.	3.937	.771
Smart card enables purchase of goods and services including online payment is easier	3.437	.813

(Researcher, 2016)

The results on the usage of smart card self-service technology was that the card enables businesses to innovate and expand their products and services in a changing global market (M=4.187); secures more customers data through secure, compact and intelligent data carriers (M=4.062) and that smart card enables the users to carry large sums of money without fear of theft (M=3.937). The respondents further said that smart card enables purchase of goods and services including online payment easier (M=3.437). The results show that smart card had been put into usage by the bank and it expands bank products and services due to its security nature which allows the customers to carry large sums of money and also using it to purchase goods and services.

4.4.4 Credit Cards

Credit cards enable the customers to obtain funds at an interest from a retail bank at one's own discretion up to some set limit and thus the need to understand the extent to which the banks have rolled out the usage of credit cards.

Table 4.5 Credit Cards

Credit Cards	Mean	Std. Deviation
Credit cards are increasingly an essential tool and offers cardholder convenience, safety and higher purchasing power	4.125	.885
Credit cards are attractive to banks because they provide higher risk-adjusted returns compared to other types of loans.	4.062	.573
Credit card as a financial instrument that allows the cardholder to obtain funds at an interest from a retail bank	3.937	.632
Credit cards play an important role both to the consumers and the banking businesses	3.625	.718
Credit cards allow users continued balance of debt subject to interest being charged	3.500	.632

(Researcher, 2016)

Results in Table 4.4 show credit cards was an important self-service technology rolled out in the bank and it offers a cardholder convenience, safety and higher purchasing power (M=4.125); provides higher risk-adjusted returns compared to other types of loans (M=4.062) and that it allows the cardholder to obtain funds at an interest from a retail bank (M=3.937). The respondents further said that the cards play an important role both to the consumers and the banking businesses (M=3.625) and allows users continued balance of debt, subject to interest charge (M=3.50). Results show that credit card technology was important to the bank and customers due to convenience and safety to customers and interest charge by bank on funds.

4.4.5 Mobile Banking

Mobile banking allows transactions using a mobile phone. The roll out of technology enables the customers to undertake both withdrawal and deposits. Results were presented in table 4.5 below.

Table 4.6 Mobile Banking

Mobile banking	Mean	Std. Deviation
The cost of transacting using M-banking	4.187	.834
Its faster to transact using M-banking	4.062	.966
It enables users to receive short messages on their mobile phones with current information transactions including information on new products and services offered.	3.937	.853
It has reduced queues in the banking	3.875	.885
M-banking service is used for funds storage by customers	3.375	.806
M-banking is cost effective on registration fees.	3.312	.704
It is convenient to both customer and banks	3.250	.774

(Researcher, 2016)

The results on the use of mobile banking was that the cost of transacting was low (M=4.187); faster to transact (M=4.062) and that it enables users to receive short messages on their mobile phones containing latest information on transactions, as well as information on development of new products and services (M=3.937). The respondents said that mobile banking has helped in reducing queues (M=3.875); helps customers to store and save (M=3.375) and that it is convenient to both customer and banks (M=3.25). From the results, mobile banking adoption has resulted in reduced queues due to faster transaction hence convenience to bank and customer.

4.5 Performance Measures

The changes in the banking sector have seen commercial banks shift to self-service technology as a way of improving their performance.

Table 4.7 Performance Measurers

Performance measures	Mean	Std. Deviation
Level of efficiency in serving customers has improved	4.437	.6291
Efficiency in the bank through reduced operating expenditure	4.187	.9810
Improved employee-manager relationships evidenced by reduced level of customer complains	4.062	.7719
Increased market share	4.062	.7719
Volume of the banks sales and market share has increased since the bank adopted the various forms self-service technologies	3.937	.8165
Employee productivity has improved	3.875	.8944
Enhanced uptake of bank products by the consumer	3.687	.7932
There has been an increased level of bank customer satisfaction	3.625	.6191
Increased customers loyalty	3.500	.6324
Increased customer base for the bank	3.375	.7188

(Researcher, 2016)

The results show that self-service technology enables commercial banks to increase the efficiency in serving customers (M=4.437); reduce operating expenditure (M=4.187); improved employee-manager relationship (M=4.062) and increased market share (M=4.062). The results further established that service technologies has seen the bank market share and revenue increase (M=3.937; improved employee productivity (M=3.875); enhanced uptake of bank products by the consumer (M=3.687); increased level of bank customer satisfaction (M=3.625); increased customers loyalty (M=3.625) and increased customer base for the bank (M=3.375). Results show self-service technology is important to listed commercial banks as it enables efficiency in serving customers thus increasing market share, revenue, uptake of bank products and increased customer base. The usage of technology also ensured that the customers are satisfied with the bank services thus creating loyalty.

4.6 Self-Service Technologies and Performance

Relationship between self-service technologies and performance of listed banks was tested using linear regression analysis based on regression model presented. Below are the model summary-ANOVA and coefficients of regression.

Table 4.8 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.805 ^a	.647	.519	.53522

(Researcher, 2016)

Table 4.8 shows the coefficient of determination that is; the percentage variation determination in the dependent variable is supported by variation in independent variables. R square is .647 which implies variance in performance of listed commercial banks can be explained by internet

banking, automatic teller machine, smart cards, credit cards and mobile banking. Adjusted R squared is the coefficient of determination which shows the variation in the dependent variable due to changes in the independent variable. From results of the study, value of adjusted R squared was 0.519 indicating that the five independent variables explain 51.9% of performance of listed commercial banks operating in Kenya. This means that other factors not studied here contribute 48.1% of performance of the listed commercial banks.

Table 4.9 ANOVA results

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regressions	5.786	4	1.447	5.050	.015 ^a
	Residual	3.151	11	.286		
	Total	8.937	15			

(Researcher, 2016)

From ANOVA statics, study established that the regression model had a significance value of 0.015 which is less than 0.05 thus the model is statistically significant in predicting the five independent variables. The F critical at 5% level of significance was 2.46. Since F calculated is greater than the F critical (value = 5.050), this shows that the overall model was significant.

Table 4.10 Regression Coefficients

Model	Un standardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.170	1.323		1.640	.105
1 IB	.463	.302	.393	1.533	.056
ATM	.353	.177	.382	2.001	.073
Smart card	.421	.276	.338	1.529	.007
Credit card	.594	.278	.487	2.140	.018
MB	.038	.135	.054	.284	.003

(Researcher, 2016)

From the data, the generated table was

$$Y = 2.170 + 0.463X_1 + 0.353X_2 + 0.421X_3 + 0.594X_4 + 0.038X_5$$

The above regression equation revealed that holding internet banking, automatic teller machine, smart cards, credit cards and mobile banking constant, performance of listed banks would be at 2.170; unit increase in internet banking would result in increased performance by 0.463; unit increase in automatic teller machine would lead to performance increase by 0.353; unit increase in smart cards would lead to performance increase by 0.421; unit increase in credit cards would lead to performance increase by 0.594 and a unit increase in mobile banking would lead to performance increase by 0.038.

4.7 Discussion

Internet banking enables the bank customers to undertake their transactions through the internet and this was found to have been rolled out the listed commercial banks. The study established

that internet banking enabled the banks to improve processes of service delivery while enabling the bank to reduce its operating costs. Interaction of the customers with the front office operations resulted in a satisfied workforce. Customers trust in e-banking on ensuring security of users' funds.

One of the strategies that have been enhanced by the banks is automatic teller machine which has seen many banks install the machines even residential areas as well as upgrade the machines' intelligence for more functionality. The increased usage of the machines by the customers has resulted in decreased number of people visiting the bank to make withdrawals/deposit, enable customers to make their transactions whenever they are without the bank having a branch present and that the system is faster compared to the manual system.

Banking industry in Kenya has experienced significant transformation recently. Innovation in information and technology has seen commercial banks introduce smart cards to customers to increase competitiveness in the market. Serva (2009) further said that smart card enables users' freedom to carry large sums of money without fear of theft. They are safe because the cards can easily be replaced and the user has to know the PIN number to access stored value in the card. This was found to be consistent with the findings of the study which established that smart card had been put into usage by the bank and it expands bank products and services due to its security nature which allows the customers to carry large sums of money and also use it to purchase goods and services.

Banks in innovations as a way of achieving customer retention, cost control, convenience to users and meeting technology expectations. Mobile banking has come in handy for many customers as they can transact whenever they want in line with the findings of the study which established that mobile banking adoption in the bank has resulted in faster reduced queues in the

bank due to faster transaction thus being convenient to both the bank and customer. The results of the study was consistent with Goswami and Raghavendran (2009) findings that convenience of mobile banking lies in the banks ensuring banking transactions happen.

The innovations that has seen commercial banks adopt self-service technologies has seen many customers embrace the technologies and this has resulted in bank being efficient in serving their customers thus increasing market share, revenue, uptake of bank products and increased customer base. The usage of technology also ensured that the customers are satisfied with the bank services thus being loyal to the bank. The results were consistent with Godana (2012) findings that service providers who adopt SSTs increase customer satisfaction, productivity; improve efficiency and ultimately organization performance. Tanya and Nicola (2006) noted that SSTs provide opportunity for banks to increase access to services, improve competitiveness, increase market share, consumer satisfaction, loyalty, and improve productivity.

CHAPTER FIVE:

SUMMARY CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter covered summary of findings, conclusion, recommendations and suggestions for further research.

5.2 Summary findings

Results show that majority of the respondent age was above 40 years and therefore the bank need to make succession arrangements so that bank operations are not affected in future as a result of advancing employees towards retirement. Results indicate that majority of respondents worked for a long time and therefore understand dynamics of the banking industry that has seen banks adopt self-service technology as a strategy for competitiveness in the market to improve performance. The changes in the banking sector has resulted in commercial banks using self service technology to reduce number of customers visiting banking halls and to be competitive in the industry.

The self service technologies used were indicated as automatic teller machines facilities, mobile banking, internet banking, credit cards and smart cards. Usage of these technologies enables customers to access banking services anytime and anywhere. Despite the benefits adoption and repeat usage of SSTs vary among users. Although the services one can access through SST are similar, patronage amongst the SSTs differs. The increasing labor costs and changes in service offerings have encouraged commercial banks to replace labor with technology-based self-service options in order to serve customers better.

In the Kenyan banking sector, ATMs are vital channels in delivering financial transactions and services. This upscale usage of the ATMs by customers can be attributed to the portability of the card and also the ability to do transactions any time of the day even without the bank having a

branch there and that the system is faster compared to the manual system. The increased usage of the ATM cards has seen a reduction in the number of people visiting the bank to make withdrawals/deposit. The customers that have access to internet have experienced improved service delivery while the banks have reduced operating costs. Interaction of the customers with the front office operations also results in a satisfied workforce.

Changes happening in banking environment such as globalization and strict regulation have made the banking sector highly competitive. Aggressiveness to increase service competition among the banks has pushed banks to find solutions and options to improve their services. The banks have put into use smart and credit cards which have seen customers expand their bank products and services due to its security nature which allows the customers to carry large sums of money and also using it to purchase goods and services. Banks are increasingly confronted by technology-savvy customers who are always on the move and are therefore working hard to counter and keep up with this development. Mobile banking services have been received well by the customers as it enables them to transact in the comfort of their houses any time. The banks were found to have benefitted from the self-services through reduction in the number of people visiting the bank for service they can do for themselves. In order to serve customers well, the banks have put in place a call center facility to answer to customer needs. Relationships with customers have been enhanced through measures undertaken by banks to better services.

Today, banking sector is competing to increase profit share in the market. For that reason, banks have moved from traditional banking to self-service technology-enabled banking services through the sustained adoption of various technologies. The adoption of the services by the banks has been beneficial as it has seen a reduction in the number of people visiting banking

halls for services they can undertake on their own. The technologies has further resulted in improved bank performance in terms of increased market share, revenue, uptake of bank products and increased customer base. The usage of technology also ensured that the customers are satisfied with the bank services thus being loyal to the bank.

5.3 Conclusion.

Customers' adoption of self-service technology is an important effort on banks towards maintaining competitive advantage, increasing productivity and efficiency. Banks use various technology-enabled banking services to improve their own internal processes as well as increase access to financial services by their customers without discrimination. Efficient use of technology enabled services has facilitated accurate and timely management of the increased transaction volume of banks necessitated by larger customer base. Design of simple and secure self-service technology has resulted in the commercial banks reaching customers doorstep thereby increasing their satisfaction and loyalty through convenience. This is an improvement from traditional long and agonizing procedure for account opening and accessibility to funds held in the accounts.

Products offered by banks are not highly differentiated which means banks have to find an edge over rivals on other parameters which can enhance customer satisfaction and loyalty. Organizations with satisfied and loyal customers will be able to survive and compete in future. Today most banks are using technology to deliver services to customers which has seen an increase in number of customers embracing technology resulting in decreased number of customers visiting the bank and in turn reducing operational costs. The study concludes that technology enabled banking self-services has resulted in improved bank performance through

increased market share, revenue, uptake of bank products and increased customer base. Usage of technology also ensured customers satisfaction with bank services hence driving loyalty

5.4 Limitations of the Study

The study used select respondents from the banks which put constraints on the generalization of results to chosen firms and chosen country contexts. The sample selection may be limiting as a representation of overall population. In addition, the narrow and specific focus of this study means the results are limited to the listed commercial banks only which may not translate to other industry and national contexts.

Methodology used required both qualitative and quantitative methods of data collection however the analysis was more on qualitative methods due to lack of finances and time to effectively measure the performance of technology enabled banking self-services, a period of one year or more is needed to monitor the impact of self-service technology on performance. Both qualitative and quantitative methods should be given equal considerations.

5.5 Recommendations

The study recommends that the banks continue offering low transaction fees and charges on technology enabled self-service networks in order to encourage usage and adoption. The banks should also ensure customers' deposits are protected at all times in order to attract customers towards culture change for future sustainability of self-service technologies.

The study recommends that banks consider intensifying the self-service technology network to ensure accessibility of services by customers in order to improve financial performance. Banks should also consider adopting bolt approaches for the captured market which will award more power to the bank in controlling the prices and services it offers to its customers.

The study recommends that banks provide adequate physical and electronic security to safeguard against incidences of hacking by fraudsters. There is need for banks to adopt and implement continuous improvement strategy for their self-service technologies through: targeting of customers, ensuring consistent interface with the customers and prospecting for acquisition by attracting users. It would be advisable for banks to understand their customers and retain them through better customer experience. Banks should also cross-sell and build loyalty by doing more business with customers through technology enhanced methods.

The managerial implications are that for banks to effectively utilize the self-service banking technologies they should put much investment in awareness and provision of facilitating conditions that will enable the usage of such technologies be successful. Further self-service banking technology providers have to take into consideration consumer's perceptions which are deemed important on use of self-service banking technology

5.6 Suggestions for Further Research

This study was on listed commercial banks in Kenya. It is recommended that further study be undertaken among all the commercial banks operating in Kenya to give a wider scope of representation of the banking industry. Secondly the study should be undertaken in other industry context and financial sector as a whole. Government institutions are increasingly showing interest on SSTs and is therefore a possible context for this study. The retail industry and travel industries are also introducing self-service technologies for competitive advantage. A study in this area would help determine whether the impact on relationships differ between industries and type of technology adopted. This will also bring out the other types of SSTs in use outside the 5 in this study.

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APPENDIX I: COVER LETTER

Catherine. A. Odawa

P.O. Box 5786, 00200

Nairobi.

October, 2016

Dear Respondent,

RE: RESEARCH QUESTIONNAIRE

This questionnaire (attached) is designed to gather information on the Self-Service technology strategy and performance of commercial banks listed in the Nairobi Securities Exchange. This study is being carried out for a management project paper as a requirement in partial fulfillment of the Master of Business Administration, University of Nairobi

Please note that this is strictly an academic exercise towards the attainment of the above purpose. You are hereby assured that the information will be treated with the strictest confidence. Your co-operation will be highly appreciated.

Thank you for your anticipated kind response.

Yours Sincerely,

Catherine. .A. Odawa

APPENDIX II: QUESTIONNAIRE

Please give answers in the spaces provided and tick (✓) in the box that matches your response to the questions where applicable.

PART A: Demographic Profile

1. Name of the commercial bank (Optional):

2. Gender: Male () Female ()

3. What is your age?

a) Below 30 year () b) 31-40 years ()

c) 41-50 years () d) Over 51 years ()

4. Highest level of Education attained?

a) Primary () b) Secondary ()

c) Certificate/Diploma () d) Bachelor's Degree ()

d) Master's Degree () e) others (Specify).....

5. Length of continuous service with the bank?

a) Less than five years ()

b) 5-10 years ()

c) Over 10 years ()

6. What type of self –service technology strategy does your bank have?

a) Internet banking ()

b) ATM facility ()

c) Smart cards ()

d) Credit card ()

e) Mobile Banking ()

Section B: Forms of Self- Service Technology

7. To what extent have the following self-service technologies influenced the operations of the bank? Use 1- to a small extent, 2-Low extent, 3-Moderate extent, 4- Great extent, 5- Very great extent

	Internet banking	1	2	3	4	5
i	Internet banking identifies a particular set of technological solutions for the development and the distribution of financial services					
ii	Internet banking reduce the cost of personnel, at least in the short term					
iii	Online banking has emerged as noble way of offering banking service to the people.					
iv	Internet banking allows customers to interact more with the front office operations and therefore resulting to a satisfied workforce					
v	Internet banking constitutes an innovation both in the processes of service delivery and in the distribution of financial services					
vi	Internet banking has led to innovation of banking products and consequently leading to a process of innovation to improve exclusively the operational procedures					
	Automatic Teller Machine	1	2	3	4	5

i	ATM service directs attention of the organization towards the real priorities of the customer that includes withdrawals and deposits					
ii	ATMs are connected to interbank networks, enabling people to withdraw and deposit money from machines					
iii	It allows withdrawals in places where one's bank has no branches, and even to withdraw local currency in a foreign country					
iv	ATM is convenience for people who are traveling					
v	ATM Password facility provides confidentiality to transaction					
vi	ATM reduces the waiting time to receive the service					
vii	Transfer of funds is faster as compared to manual banking system.					
	Smart cards	1	2	3	4	5
i	Smart cards are secure, compact and intelligent data carriers and therefore secures more customers data					
ii	Smart card enables the holder the freedom to carry large sums of money around without feeling anxious about having it stolen					
iii	The card helps businesses evolve and expand their products and services in a changing global marketplace					
iv	Smart card enables purchase of goods and services including online payment is easier					
	Credit Cards	1	2	3	4	5
i	Credit cards allow the consumers a continuing balance of debt, subject					

	to interest being charged					
ii	Credit cards play an important role both to the consumers and the banking businesses					
iii	Credit card as a financial instrument that allows the cardholder to obtain funds at an interest from a retail bank					
iv	The credit cards are attractive to retail banks because they typically provide higher risk-adjusted returns than other types of loans					
v	Credit cards are increasingly becoming an essential tool and it offers a cardholder convenience, safety and higher purchasing power					
	Mobile Banking	1	2	3	4	5
i	The cost of transacting using M-banking is low					
ii	Its faster to transact using M-banking					
iii	It has reduced the queues in the banking halls					
iv	It allows enables customers to receive short messages on their mobile phones containing up-to-date information about latest transactions on their accounts, as well as information about new developments on products and services offered					
v	It is convenient to both customers and banks					
vi	M-Banking is efficient with respect to entry costs					
vii	M-Banking service is used for funds storage by customers					

9. Part C: Organizational Performance

The adoption of the various self-service technologies is expected to improve various banking performance measures. Kindly indicate the extent to which you agree with the following statements on a Scale of 1 to 5 where 1= Strongly Disagree 2= Disagree 3=Neutral 4= Agree and 5= Strongly Agree.

	Performance measures	1	2	3	4	5
i	There has been an increased level of bank customer satisfaction					
ii	The bank has registered an improved employee-manager relationships as evidenced by reduced level of customer complains					
iii	The volume of the banks sales has increased since the bank adopted the various forms self-service technologies					
iv	There has been an improve cost efficiency of resources in the bank and therefore the level of operating expenditure has reduced					
v	Employee productivity has improved					
vi	The level of efficiency in serving customers has improved					
vii	Increased market share					
viii	Increased customer base for the bank					
ix	Enhanceduptake of bank products by the consumer					
x	Increased customers loyalty					

THANK YOU FOR YOUR TIME

APPENDIX III: COMMERCIAL BANKS IN THE NAIROBI SECURITIES EXCHANGE

1. Barclays Bank
2. CFC Stanbic Holdings Ltd
3. I&M Holdings Ltd
4. Diamond Trust Bank
5. Housing Finance Co. Ltd
6. Kenya Commercial Bank
7. National Bank of Kenya Ltd
8. NIC Bank Ltd
9. Standard Chartered Bank Ltd
10. Equity Bank Ltd
11. Cooperative Bank Ltd.

(KBA, 2016)