

Marketing Factors Influencing The Performance Of Mobile Banking (Survey of Equity Bank south Rift Region)

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ABSTRACT:-Much attention has been put in technological advancement with lesser regard to marketing drivers which have direct impact on performance of the m-banking channel. Most studies on M-banking have concentrated on adoption and largely on obvious obstacles like the perception of risks, security, ease of use and the users' attitude etc. Marketing challenges have been studied much less particularly those challenges which affect post adoption uses of the M-banking system. The main objective of this study therefore was to establish the marketing challenges influencing the performance of mobile banking a survey of Equity Bank South Rift region; which was done by focusing the study on effects of evolution of technological innovations, user security, risks and awareness level on performance of the channel.

The research utilized descriptive research design with qualitative and quantitative methodology. The target population for the study was 142 employees of Equity Bank in the bank's branches within South Rift region. The sample size was 105 employees. To ascertain the validity of the data collected, much attention was paid while designing the questionnaire to ensure that objective of the study were adequately addressed which were then used to collect primary data from the target population. Out of the 105 questionnaires dispersed, 85 of them were fully filled and picked for analysis, translating to a response rate of 81% response rate considered adequate. Quantitative data was coded and analyzed using Statistical Package for Social Sciences (SPSS version 22). Data thus collected were subjected to descriptive analysis i.e standard deviation, relative frequencies and percentages and in addition, correlation analysis was carried out to test the strength of relationship among the variables. The data was presented using charts, tables and graphs.

The findings revealed that the relationship between independent variables (security, perceived risks, awareness level and technology) and dependent variable M-banking performance was significant i.e. $P < 0.05$. When marketing factors were considered independently, awareness level had a very strong positive correlation with M-banking performance at $r = 0.734$ followed by perceived risks with a strong negative correlation at $r = -0.696$ then security with a moderate negative correlation at $r = -0.534$ and finally technology with a weak positive correlation at $r = 0.361$. Furthermore, when means were considered, awareness level still ranked the highest marketing factor influencing M-banking performance at mean = 4.830 on a scale of 1-5, followed by perceived risks at mean = 4.210 then security at mean = 3.440 and finally technology at mean = 3.230. The consistency of the results shows that the most important marketing factor that influences M-banking performance in the context of Equity bank in South rift region is awareness level although perceived risks, security and technology are also significant. Additionally, when regression analysis was carried out, the overall model fit R^2 was .549 i.e. the independent variables could explain 54.9% variation in M-banking performance with 45.1% unexplained implying that there could be other factors influencing the performance of M-banking. The 45.1% remaining implies that there are other factors that affect M-banking performance other than the four marketing challenges identified in the study. This study therefore recommends that Equity bank South rift region should concentrate its efforts on enhancing awareness level of m-banking.

Key Words: *M-banking, Marketing challenge, Technology, User Security, Perceived Risk, Awareness level.*

I. DEDICATION

I dedicate the proposal work to my Mom Vascaline, wife Evelyn and daughters Amsale and Amresh for their prayers & spiritual support and especially for their encouragement and cheer throughout the period. My supervisor for his understanding, patience and guidance. Not forgetting my workmates for their co-operation, inspiration and support. May God bless you all!

II. ACKNOWLEDGEMENT

I'm grateful and highly appreciative to many outstanding individuals without whom this work would not have been successful. Distinct gratitude to The Almighty God for the grace of care, health, and strength He has bestowed upon me, may all the glory be unto Him. I'm deeply indebted to my supervisor for his personal

commitment, encouragement, availability, endurance and forbearance during the interactions which immensely contributed to the success of this research proposal. To all of you, may our dear Lord Jesus richly bless you!

III. DEFINITION OF TERMS

Mobile banking is a channel whereby the customer interacts with a bank via a mobile device, such as a mobile phone or personal digital assistant (PDA) (Barnes & Corbitt, 2003).

Mobile payment is the use of a mobile device to conduct a payment transaction in which money or funds are transferred from a payer to a receiver via an intermediary, or directly without an intermediary (Niina Mallat, 2006).

Marketing Communication refers to all methods a company uses to communicate with customers and possible customers (Duncan and Everett, 1993; Fill, 2002)

Perceived Usefulness is the degree to which an individual believes that using a particular system would enhance his or her job performance (Sultan & Uddin, 2011; Bhatnagar & Ghose, 2004).

Perceived Ease of Use is the degree to which an individual believes that using a particular system would be free of physical and mental effort (Sultan & Uddin, 2011; Bhatnagar & Ghose, 2004).

IV. CHAPTER ONE INTRODUCTION

1.1 Background of the Study

Inventive mobile services have opened up M-banking a new distribution channel for banks to enforce their multi-channel strategy; cut on cost, reach the unbanked and maintain a competitive advantage. M-banking refers to the execution of financial services using mobile communication techniques together with mobile devices (ITU, 2011). M-banking is one of the emerging ICT element that has changed the operations in the banking sector and banks are eagerly introducing various forms of SMS services for communication and transaction purposes.

Most financial institutions have introduced M-banking, taking advantage of high mobile phone infiltration in the recent past and more specifically in Africa (Tiwari & Buse, 2007). The simplicity of using mobile phones to send and receive money and make payments anywhere has the potential in helping in an effort in making economy a cashless one.

Wider acceptance and usage of M-banking can result in increase in business and economic growth (Tobbin 2012). Adoption of mobile banking services can greatly widen the market reach of financial services to the poor and rural population in Africa; hence understanding the key drivers that could be slowing adoption of M-banking has become a relevant topic for the banking sector (Aldas et al., 2009 & Zhou et al, 2010). One way of understanding this unpleasant trend can be achieved through investigation by way of market research. Sensitization and awareness creation with aim of educating the market on manipulation of menus involving M-banking is paramount, necessitated by the fact that technological features play important role in the adoption of mobile value added services, (Keen & Mackintosh, 2001).

Navigating an M-banking/m-payment interface is difficult for experienced mobile users with bank accounts, more so for first-time users particularly in the developing world (Cracknell, 2004, Peevers, Douglas, & Jack, 2008). The challenges thus experienced is as a result of complicated menu maneuvers and the lack of command of abstract concepts about invisible/virtual money (Singh, 2007). Cultural beliefs, misunderstandings, habits, and concerns also contribute to marketing constraints experienced such constraints have got to be addressed by banks' marketing departments for positive good results. These constraints add up with other socio-economic factors like income and education level which play a vital role in the rate of absorption and consumption of products particularly in the service industries such as telecoms and banks. Low income and education individuals attach a high premium to interaction and interpersonal relationships (Lyman et al, 2008). Marketing of such products as mobile banking to this segment has to be done in a systematic and organized manner by employing correct marketing mix tools and subsequently creating efficiency of service and reliability assurance. It is worth noting that Mobile banking lies at the interface between financial service providers and telecoms. This implies that an individual who has access to both telecom money transfer service and M-banking, will by nature compare complexities in menus involved in both scenarios and will most probably subscribe to what appears to be simpler, reliable and efficient. On the contrary little has been developed so far about how mobile money may be different from traditional banking; for instance making distinction between "bank-based" and "telco-based" mobile money schemes (Lyman et al 2008). Furthermore, Mobile banking transactions lack the assurance provided by staff assistance in traditional settings. Proper marketing strategy to address the gray area is needed which calls for development of marketing plans with integration of appropriate marketing communication tools known to have high chances of drawing attention and sparking good attitude towards M-banking. Usage patterns appear to be largely driven by personal missions and marketing strategies of service provider (Njenga, 2009)

1.1.1 Profile of Equity Bank

The study focuses on Equity Bank; one of the mainstream banks in Kenya. The bank is incorporated and registered under the Kenyan Companies Act Cap 486 and domiciled in Kenya. Equity Bank offers retail banking, microfinance and related services. It has subsidiaries in Kenya, Uganda, South Sudan, Rwanda and Tanzania and its shares are listed on the Nairobi Securities Exchange and Uganda Securities Exchange. The bank through business model that is attached on access, convenience and flexibility, has grown to become an all-inclusive financial services provider with a growing pan African impression. Equity Bank offers the infrastructure of delivery hence reducing the operational costs for the bank and increasing the rate of return on investment.

Equity's M-banking has evolved from the time of partnership with Safaricom (the mobile operator behind M-PESA) having jointly launched M-KESHO, a co-branded suite of financial products that would ride on the M-PESA transactional 'rails' (Fai, 2010). The service was jointly branded and marketed by both companies. The accounts were held in a server owned, hosted and operated by Equity Bank. M-KESHO customers had one more item on the M-PESA menu 'M-KESHO' The M-PESA menu refreshes automatically upon registration. A submenu then permits customers to fully manage their M-KESHO account: transfer money to/from their M-PESA account, request a balance inquiry or mini-statement and apply for the loan or insurance facilities and so on.

Equity has mobile phone user interface available through a number of channels: JAVA, WAP and USSD. Customers have the option of managing their M-KESHO account including transferring money between their M-PESA and M-KESHO accounts from either their M-PESA phone menu or through the Easy 247 service. Eazzy 247 is the bank's mobile banking system that allows customers to access bank services using mobile phone. The service is available through Safaricom, Orange, YU, Airtel & MTN USSD and SMS. The features of Eazzy 247 are; Send Money/Payments ,PayBill ,Balance Enquiry,Enquiries/ Requests,Airtime Top-Up,EAZZY Cash and EAZZY Loan. This is a strategy to offer mobile banking and payment related services and ensure availability of such services to the bank's customers with respective MNP SIM cards. The service thus enables customers from these networks and Equity Bank to access mobile banking platforms, perform agency cash transactions at the bank's branches and also enable customers to withdraw and deposit money at any of the branches countrywide. (<http://equitybankgroup.com/index.php/blog>)

The bank's most recent strategy in the M-banking is the Mobile Virtual Network (MVNO) rolled out by in May, 2014. The roll out is being done by the bank's subsidiary Finserve Kenya trading as Equitel. MVNO integrates the paper-thin SIM embedded with a chip. Users overlay the SIM on their primary SIM card, irrespective of the network, and can subsequently receive services from two mobile service providers simultaneously. Its use means Equity Bank does not have to issue its own SIM cards but could ride on the existing ones (<http://www.cio.co.ke/news/main-stories/equity>). The CAK board gave Finserve Kenya the go-ahead to roll out its services using MVNO technology however on one year trial. During the trial period, technical audit would be conducted with approval from CBK to ascertain its compliance with the National Payment regulations. Ideally MVNO service, provide the most secure banking platform delivered via the mobile phone; pricing strategies reduces the middlemen layers of fee associated with mobile money transactions. Mobile transfers are charged at 1% of the transaction value. Additionally, instant loans are made available to the bank's customers. Equity MVNO replicates all its banking services into the mobile phone by linking the account to the mobile phone; customers can move money into and from their bank accounts and pay bills. Furthermore, through Equity banks' multi-channel connectivity, customers are able to carry out cross border transactions from their mobile phones. They can receive international remittances onto their accounts and access through their mobile phone numbers, Equity Agents, ATMs or branches.

The bank's MVNO strategy had encountered resistance from some stakeholders. One such clash was with Safaricom and the Consumer Federation of Kenya (COFEK). Safaricom, moved to block the roll-out citing legal exposures that could be created by the use of the SIM overlay technology, particularly in relation to mobile banking activities. Safaricom's concern is that, the thin SIM technology poses a security threat to mobile subscribers; that the technology can interrupt and intercept communication in the primary SIM card and also that the dual use of the overlay SIM may introduce vulnerabilities in the network by infringing on intellectual property. Besides the resistance, Equity bank is still keen on integrating IT into the banking system. Particular attention is paid to Mobile banking platform (www.equitel.com)

1.2 Statement of the Problem

The mobile channel is still early in its maturity, but must be recognized as an integral delivery channel. Take up in early formative years was restricted by lack of customer knowledge and experience. It required significant customer handholding and education. Now take up is tremendous due to multichannel strategy which is embraced by most financial institutions. The strategy has led to increased customer acceptance / adoption of mobile device as a banking mechanism. Mostly banks recruit customers to M-banking by issuing them with registration documents along with other mandating forms like debit/credit card application or account opening

forms and thus when later statistics are done; the number of registered customers would be high while the usage and hence performance is lower.

According to the CCK's third quarter 2012/2013 report, the total mobile subscribers stood at 29.8 million while the mobile money subscribers stood at 23.2 million, with 74,216 agents as at March 2013 (CCK, 2013). This then implies that there are over 6 million prospective users who are yet to subscribe to mobile banking services. There is need to understand reasons for lack of adoption and post adoption usage whether this has a bearing on the marketing strategies being employed by banks. Banks could then adopt marketing strategy inclined to education of potential customer on the usage of M-banking. Another possible option could be for the banks to team up telecommunication companies to ensure vibrant and effective telecommunication services, since telecommunication services is the platform upon which banks can offer M-banking (Iddris, 2013).

Mobile banking service can provide consumers a variety of banking services anywhere anytime, but at present this service is not adopted by consumers broadly. According to iResearch (2003), only 14.3% of mobile phone users are using mobile banking service. This adoption rate is much lower than other mobile value-added services. Most scholars of the subject attributed the reasons why consumers were not willing to use mobile banking service to some obvious obstacles, such as safety problem, privacy concerns, demography, income levels, etc. Perceived usefulness, ease of use, security and privacy, and customer attitude are significantly and positively related to customer adaptation (Nadim & Noorjahan 2008)

According to Wu & Wang's (2005) users' previous experience with online services may imply that consumers are more aware of the existence of potential risk. According to Kim et al., (2008), consumers are often faced with at least some degree of risk or uncertainty in using mobile technology. Technological features play an important role in the adoption of mobile value added services. Mobile customer values speed and simplicity. They expect mobile information to be real time (Keen & Mackintosh, 2001). On the contrary, mobile banking faces various challenges among them being, system delays by the mobile money transfer service providers, slow processing of transactions especially during the weekends, high transactions costs, limit on the amount of money that can be withdrawn in a day and fraud.

While little has been done to address awareness creation and sensitization of M-banking by the industry, there are lots of literature and theories on adoption influencers. There is the perceived risks, income levels, demographic factors perceived usefulness and so on; Technology being a major force in this radical transformation has led to breaking the geographical, legal and industrial barriers and has created new products and services. Such products and services have short shelf life in that, the dynamism brought about by technology render them obsolete so soon. On the other hand the rate of adoption of such products and services is slow due to the factors and concerns raised by other scholars touching on risks etc. However, all the inhibitors to fast rate of adoption and post adoption usage anchors on lack of knowledge and information on M-banking by the target market; marketing challenge. An enlightened market is aware of M-banking risk and ways to mitigate such risks, and is quick to explore and understand menu maneuvers.

There is a need therefore to investigate the challenges from marketing point of view in order to furnish the industry and other stakeholders with alternative recommendation to help in development to quality strategic plans.

1.3 Objectives of the Study

1.3.1 General Objective of the Study

The general objective was to establish the marketing challenges influencing the performance of mobile banking a survey of Equity Bank South Rift region)

1.3.2 Specific Objectives of the Study

The specific objectives of this study were as follows;

- i. To establish impact of technological innovation on performance of M-banking in South Rift region
- ii. To determine how user-security concerns affect performance of M-banking in South Rift region
- iii. To establish the effect of customer perceived risks on the performance of M-banking in South Rift region
- iv. To determine the effect sensitization on the performance of M-banking in South Rift region

1.4 Research Questions

This study sought to answer the following questions;

- i. What is the impact of technological innovation on performance of M-banking in South Rift region?
- ii. How do user-security concerns affect performance of M-banking in South Rift region?
- iii. What is the effect of customer perceived risks on the performance of M-banking in South Rift region?
- iv. What is the effect of sensitization on the performance of M-banking in South Rift region?

1.5 Significance of the Study

1.5.1 To the Kenyan Government

The study will benefit the Kenyan government in its vision 2030 endeavors to become middle income country, achieve savings and investment rates to GDP 14% to 25% to 30%, increase bank deposit from 44% to 80%, significantly reduce the cost of capital and so on.

1.5.2 To the government of Kenya

To the government of Kenya and policymakers, the study will provide information on the effect marketing challenges on performance of Mobile Banking which can be used to formulate policies and laws to govern the banking industry and particularly the cashless channel.

1.5.3 To Banks and Financial institutions

The study will provide information on the marketing challenges affecting performance of M-banking that can assist banks to formulate policies and strategies and appropriate marketing communication tools that can be integrated in order to improve the performance of M-banking hence enhance return on investments for banks.

1.5.4 To researchers and academicians.

To researchers and academicians, the study adds information to the body of knowledge on the marketing challenges that affect the performance of M-banking. The study also provides a base upon which other studies can be conducted M-banking and associated marketing challenges.

1.5.5 To the general public.

To the general public, the study will provide information on the benefits of M-banking. Through realization of the cost-cutting and time saving benefits

1.6 Scope of the Study

This study was restricted to the four variables, which include marketing challenges associated to technology, user-risks, user security, customer perception of risks associated and awareness level. The study focused on Equity Bank branches in the South Rift region comprising of Narok, Kericho, Bomet Counties. Furthermore, the target population of were staff of Equity Bank in South Rift region (see table 3.1).The selection of South Rift region is based on convenience and purposeful sampling method which involves selection based on availability (ease of access) of the population units.

1.7 Limitation of the Study

Challenges were expected in the data collection process. Since the Equity Bank Branches within the county are so far apart, there was a back and forth travelling and also considering that the banks staff were somewhat reluctant to partake in the survey due to policies of confidentiality etc. Moreover, some respondents felt as if they are being investigated. To overcome this challenge, a letter of data collection was obtained from the University and the names of the respondents remain anonymous. Besides, the researcher enlightened the respondents that the data was only meant for academic purposes only and assurance was made to the respondents that confidentiality of the information given would be safeguarded.

V. CHAPTER TWO LITERATURE REVIEW

2.1 Introduction

This chapter reviews literature on technology adoption and marketing communication models in view of mobile banking adoption and subsequent performance. The chapter begins with a theoretical framework, followed by a conceptual framework, critique of existing literature and a research gap.

2.2 Theoretical Framework

A theory is a set of statements or principles invented to explain facts or phenomena, especially one that has been repetitively tested or is broadly accepted and qualifies for use in making forecasts about natural phenomena (Zima, 2007). This section focusses on four theories: Innovation Diffusion, Technology Acceptance Model, AIDA Model and DAGMAR

2.2.1. Innovation Diffusion theory

The distribution of any innovation; products, process, or philosophy, has been associated to the diffusion of a fluid from one medium to another. Individuals coming into contact with an innovation for the first time have to make a decision about whether to accept or reject it. Some will make decision promptly while others engage long progressions, doing deep investigation of the innovation and its anticipated results. The decision process is thus defined as the process through which an individual/decision-making unit passes from first knowledge of innovation to forming an attitude toward the innovation, to a decision to adopt or reject, to implementation and use of the new idea, and to confirmation of this decision. In this theory, Rogers (2003) invented attributes to help predict when and where adoption occurs under given social circumstances.

These attributes are; relative advantage, compatibility, complexity, trial ability, and observability. According to Sevcik (2004), not all innovations are adopted even if they are good it may take a long time for an innovation to be adopted. He further stated that resistance to change could be a hindrance to diffusion of innovation although it might not stop the innovation it slows it down. The resistance to change is partially because of incompatibility with lifestyle (Pu'schel.; Mazzon F.; & C. Hernandez 2010). These studies along with the attributes from ID theory serves to highlight some of possible marketing challenges affecting the performance technology based innovations like Mobile banking.

2.2.2. Technology Acceptance Model

Technology Acceptance Model (TAM) proposes that users' motivation can be explained by three factors; perceived Ease of Use (PEOU), Perceived Usefulness (PU) and the Attitude Towards Using (ATU) the system. TAM has become popular in research work especially the ones oriented towards technology (Lee, Kozar, & Lasern, 2003). Attitude has also been cited as the major determinant to whether one will use or reject a system (Chuttur M.Y. 2009). According to Akturan & Tezcan (2012), using TAM to investigate the perception and intentions of M-banking adoption, found attitude as major determinant of mobile banking adoption intention as well.

TAM has been comprehensively tried and validated and is a widely accepted model. It has been modified or extended using other theories or constructs (Luarn & Lin, 2005; Zhang, Gou & Cheng, 2008; Yen, Wu, Cheng & Huang, 2010). Social and organizational factors as subjective norms, impression, quality of output and work relevance have been introduced into the TAM model and leading to proposal of hybrid TAM2 model. Wu and Wang (2005) combined TAM2 and innovation diffusion theory (IDT), in a study focused on investigating the drivers of mobile commerce. Ali and Hayat (2014) while studying customer perception of Mobile banking using TAM, established that usefulness has to be continuously improved in order to match the user interfaces of elderly, retailers and others leading the curve with mobile technology.

The study further recommends attention to the risks which could affect transactions performed through mobile devices in order to enhance customers trust. To motivate customers to adopt M-banking, there has to be increased level of service as well as technical infrastructure of mobile banking services which should be sophisticated enough to ensure reliability and timely offering of services to customers. On new functionalities, banks should continue to improve customers overall mobile experience in order to enhance acceptance Laukkanen and Kiviniemi (2010). Information and guidance offered by banks has the most significant effect on decreasing the usage barrier, followed by image, value and risk barriers respectively. TAM can thus be incorporated in this study to unravel the marketing challenges and bottlenecks which slow down and hinder acceptance of M-banking technology and its subsequent under-performance.

2.2.3 AIDA Model

Prior to roll-out of any innovation in the form of a product or service, there is always awareness creation/sensitization which could be done through advertisement, Advertisement can be conveyed through the various media. However the effectiveness of an advertisement is subject to its design and the context in which potential users interact with the message. Lewis suggested AIDA model (theory); most popular model in marketing communication. AIDA is acronym for Attention, Interest, Desire and Action respectively; chronology of events which attempts to explain what occurs when individuals come into contact with an advertisement. The model is generic prescription for design of advertisement in such a way that it leans towards psychologically conquering behavioral characteristics to ensure advertisement nurture awareness, stimulate interest, and leads the customer to desire and eventually action (Hackley, 2005).

AIDA model is contextualized such that a sender of the message has to exist to send out a message to a receiver. The sender constructs a need /purpose with its communication, selects a message to send out through the appropriate channel that can lead to a created need among the target audience (Strategic Direction, 2006). In this case there exist seven elements namely the sender, message, receiver, feedback, channel, place and noise. All the seven elements are important in the process of communication short of one of them, the process is incomplete (Dwyer, 2005).

During communication there can arise barriers which can lead to confusion and misconception of the original message. Once the customers' interest has thus been aroused, it should be followed up with relationship communications by the product/brand representative (Dahlqvist & Linde, 2002). Without properly designed advertisement, mass media advertising in general fails to stimulate desire or action. This fact could explain why most advertisements currently have focused more on the two main behavioral responses namely awareness and interest. For organizations to have effective advertisement, it could be necessary for them to enhance marketing budget, re-look into advertisement message content, channels, and media in order to provide the favorable conditions for awareness creation and provoke interest. Newly innovated and technology oriented services and products can be communicated to target market using the models' attributes to attract attention, create interest, and stimulate desire hence prompting people to buy the product/service (Birch, 2010).

2.2.4 DAGMAR

Under marketing communication there are varieties of theories on advertisement. One such theory is DAGMAR. The theory was invented Russell Colley and later published as a book with the same title (Mackay, 2005). It is an abbreviation for *Defining Advertising Goals for Measured Advertising Results*. The model is motivated by quantifiable objectives for every stage of the communication (Smith & Taylor, 2002). It does not deal purely with the message (Mackay 2005) but also with the four stages namely; awareness, comprehension, conviction and action. DAGMAR emphasizes on the levels of understanding that customers must have for the organization and on how to measure the results of advertising.

The theory is also based on the belief that communications that weigh on the eventual objective of a sale must carry a prospect through four levels of understanding. It suggests that the target customers must first be aware of the existence of brand, have a comprehension of the products/ services being offered and benefits, arrive at a mental feeling or opinion to buy the product/service and finally take to action hence the communication has to be specific and measurable (Mackay, 2005). The models' approach is hence effective in setting objectives in the advertising planning process; it has a good point on how advertising works and what objectives an organization should have with their advertising. The model focuses on advertisement strategies that are measurable. For organizations who engage so much in research and innovation of technology oriented services/products, it would be important to gauge the level of awareness of the target market regarding such products/services, which should be directly proportional to its consumption thereof

2.3 The Conceptual Framework

This study sought to establish the effect Technology, User security, Customer perception of risks associated with M-banking, Awareness level on M-banking. The dependent variable was Performance of M-banking. The study thus proposed the following conceptual framework.

Figure 2.1 shows the conceptual framework.

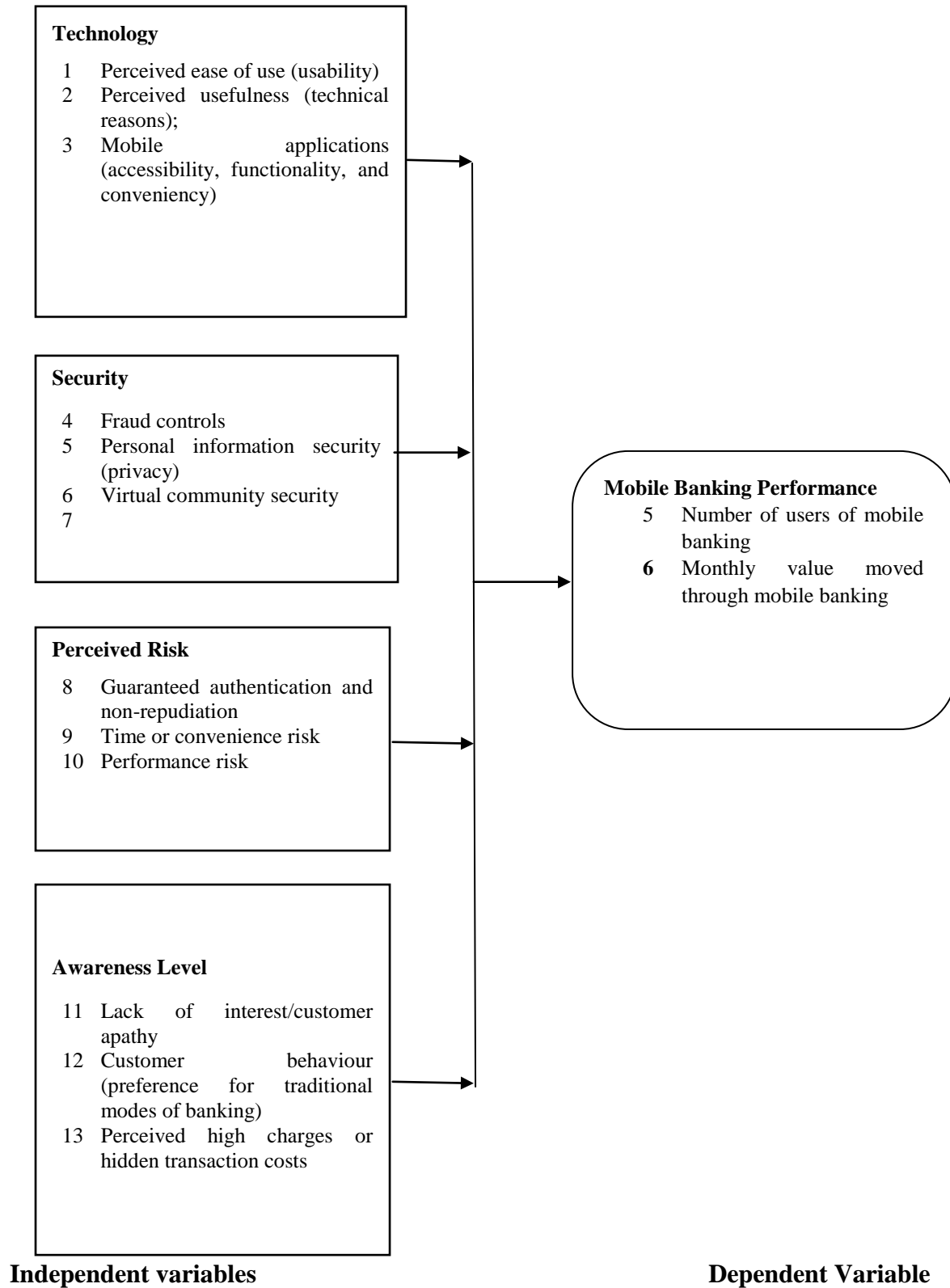


Figure 2.1: Conceptual Framework

2.3.1 Operationalization of Variables

2.3.3.1 Technology

This is measured by Perceived ease of use (usability), Perceived usefulness (technical reasons); attitudes towards mobile technology (Work system); mobile applications (accessibility and conveniency) ("beliefs, attitude, intention and use" (Alter, 2002; Saleh & Mashhour, 2014; Cheah et al., 2011). Perceived usefulness (PU) is defined as "the degree to which a person believes that using a particular system would enhance his or her job performance" and Perceived ease-of-use (PEoU) is "the degree to which a person believes that using a particular system would be free from effort". Human and machines or technology should work together in order to produce the desired results and if this cannot happen then the likelihood of good results will be low. According to Alter (2002) and Saleh & Mashhour, 2014), a work system involves the participation of human beings and technology to bring about seamless business processes and in this study it is mobile commerce. A good information system captures, transmits, stores, retrieves, manipulates, and displays information which is used to make desired decisions. Mobile banking can be looked at as special type of working system where human beings are required to retrieve information stored in the handsets, send it to the banks and get the desired products or services (Siau et al., 2004). Customers form opinions about business processes and this will determine whether or not they will transact through the mobile platforms (Siau et al., 2004). If for example customers find it hard to maneuver through the applications, they are likely to abandon the mobile banking use.

The following aspects of the four elements can be developed in relation to mobile banking in relation to a work system (Siau et al., 2004): Services and products (convenience, privacy, efficiency, efficiency, cost effective and quality); Business processes (service delivery in real time, accessibility to m-commerce, personalization, localization, privacy policies are developed, people's rights are observed, personal information should be protected, mobile phone devices cost should be minimized and make sure that customers can compare shopping in order to maximize their experiences especially women); Information (quality of information is paramount and information alert should be in real time) and finally Technology (increased mobile commerce speed, the searching should be made easy, quality of display should be maximized, ease of use should be maximized, systems should be secure, bandwidth should be maximized, functionality should be maximized, mobility should also be maximized, ensure maximum coverage and input and output interface design should be improved) (Siau et al., 2004). All these elements interact to ensure customer satisfaction hence on line marketers and sellers should work with developers to ensure that the devices allow for ease of use.

Mobile applications are software apps that are designed to run on mobile phones for example tablets, smartphones etc. (Ogcio, 2014). The applications are often termed to as hybrid or native apps since they require downloading, installation and subsequent a long process for most users. Siau et al. (2004) state that mobile commerce and mobile banking is an extension of e-commerce but should not be analyzed just like another e-commerce platform. M-banking brings about certain levels of uniqueness that brings along certain advantages for example accessing information anywhere-anytime, it is portable and is not limited with locality. Whereas m-commerce brings about various benefits, on line retailers and web content developers should understand that mobile commerce should be analyzed from a customer's eyes. This implies that the functionality of mobile commerce should looked at from how customers view it as opposed to how mobile platforms looked at it.

2.3.3.2 Security

Security in the context of mobile banking relates to personal information security, infrastructure security and virtual community security (Federal Trade Commission, 2013; Hoofnagle et al., 2012). Security and trust can be seen from the following angles: Personal information security where individual assets and credentials are secured and when designing mobile gadgets or devices, pseudonymity, anonymity, linkability and observability issues must be looked into. Second is virtual community security where social and business relations are secured in virtual or mobile communities. At this level, policies related to authentication, approval and authorization are important. Lastly is infrastructure security where the IT platforms are secured. This requires developing laws that ensure security of the cyberspace.

2.3.3.3 Perceived Risk

A great number of consumers and potential users of technological innovations have idiosyncratic anticipation of loss such that the more certain they perceive the subjective outlooks of loss the more they anticipate risks. It is the level of uncertainty of a consumer, depending upon whether the purchase he/ she is making will be worth it or not. The perceived risk is higher when a more expensive purchase is going to be made (Saleh & Mashhour, 2014). Users require authentication which is guaranteed such that both parties know who the other party to a transaction is; integrity of the messages such that messages sent from the sender to receiver are not tampered with and non-repudiation does not occur such that none of the parties can deny that exchange or transactions did not take place (Saleh & Mashhour, 2014; Kabir, 2013). Performance risk: refers to losses incurred by deficiencies or malfunctions of mobile banking servers. Financial risk is defined as the potential for monetary loss due to transaction errors or bank account misuse. Time/convenience risk refers to a loss of time and any inconvenience incurred due to the delays of receiving payments or the difficulty of navigation. Social risk: refers to the possibility that using mobile banking may result in disapproval by one's friends/family/work group (Cheah et al., 2011).

2.3.3.4 Awareness Level

Non-price competition, in the form of advertising and marketing efforts play important role in the performance of commercial banks. Awareness level arises due to lack of interest/customer apathy; customer behaviour (preference for traditional modes of banking); perceived high charges or hidden costs and lack of information on M-banking. Hence, bank's attention should focus on understanding customer behavior and designing reliable mobile banking systems that will meet their needs and provide useful and quality services. In addition, banks should focus on communicating information that emphasizes the relative advantage and usefulness of mobile banking compared to other banking channels like physical presence to the bank or using ATM machines. Banks must seek to reduce risk perceived by their customers by offering specific guarantees protecting them and taking their complaints seriously and urgently (Al-Jabri, 2012). In addition, Relative Advantage refers to the comparative benefits that an user of mobile banking may avail which he/she could not get from other traditional banking services. As mentioned by Pikkarainen et al. (2004) users are more likely to adopt mobile banking if they believe using mobile banking will gain more relative advantages as compared to other traditional banking channels such as ATM or non-mobile internet banking. It includes perceived cost and time (Ching, 2011; Cheah et al., 2011).

2.4 Marketing factors influencing the performance of Mobile Banking

2.4.1 Impact of Technological innovation on performance of mobile banking

The introduction of technologically innovated products like M-banking, electronic payments, security investments, information exchanges provide more diverse services to bank customers with minimal human

resource (Akhisar et al., 2015; Aduda & Kingoo, 2012; Brush, Dangol & O'Brien, 2012). Technology improves banks performance by reducing operational cost and facilitating transactions among customers within the same network. Technology has thus expedited so much innovation particularly in the banking sector for the purposes of positioning. However, Technology can brood cluster of challenges in the market; uncertainty about the kind and extent of needs to be satisfied and ignorance of customers with regards budding uses and benefits of technology. Furthermore it is hard to establish the size of potential market or how fast the new technology will spread. With compatibility standards for the technology unproven, swift and random changes in needs tend to trail. Research and development in IT has led continuous innovation each time birthing new and better products, services, systems, processes etc. and hence rendering shelf life of some IT products so short.

Hence the rate of obsolescence is so high leading to more confusion amongst the users a part from the techno savvy portion of the market. Moreover in as much as IT innovations are mainly motivated by the need for efficiency and convenience, at times there may arise system down times and other side effects which render total inoperability and inaccessibility of the so needed primary services. The demands of vibrant M-banking implementations revolve around improved network coverage, quality connections (Njenga, 2009; Oyewole et al., 2013; Akhisar et al., 2015). M-banking for most banking institutions ride on Mobile money transfer from third party telco companies whose priorities vary from banking thus sometimes leads to slow and bureaucratic processing of transactions especially during the weekends. This outsourcing gives rise to high transactions costs, limit on the amount of money that can be withdrawn in a day and fraud (Ndungu, 2013).

There has not been clear distinction in the marketing strategies for IT innovated products/services such that most players in the industry contextualize the pull instead of push strategy. Wrong strategy may hinder the maximum performance of M-banking. The market is concerned with the newness of the technology and besides, increased support is required to demystify concerns and application fears for end users. Consumer banking needs have a major negative influence on the adoption of M-banking. Capturing innovators and early adopters that will onset the market would be inappropriate step to undertake considering the marketing concept remains relevant as businesses are about ascertaining unmet consumer needs and finding a way to satisfy them (Oyewole et al., 2013; Hosein, 2013).

It is important to observe the four P's of marketing mix decisions which remain vital to manage the market by educating about the products and also about the underlying technology. One other challenging fact is that, high tech developers often fail to articulate the exclusive benefit of the particular product and/or service, but most of them place an extravagant attention on the technology features itself and of course competition and the desire to remain relevant is the main driver of this kind of motivation (Akhisar et al., 2015). Consumers have a tendency to resist change while most organizations do not always communicate effectively the characteristics of the new product/technology specifically during launching. Organizations are yet to succeed in reducing the perception of complexity, enhance demonstrable compatibility, relative advantage, offering and so on.

2.4.2 Effect of user security concerns on performance Mobile Banking

M-banking security concern is significant factor contributing to the performance level and rate of adoption. The rigidity and lack of confidence by most possible users arise partly from phobia, uncertainty and heresy with regards to technological innovations the likes of M-banking. These could arise from past experience with similar technology or a familiar context, largely attributed to the level of knowledge of operation of new IT products and services. In new markets, customer adoption depends on growing trust. The experience of consumers at the hands of a few reckless providers may cause them to distrust all similar offerings in the market (Porteous, 2006). Providers may therefore enjoy positive externalities from creating appropriate levels of consumer protection which help create trust, leading to more rapid adoption. This is in line with study by Laforet & Li (2005), they mentioned user security as the most important determinant of consumer adoption of mobile banking and the main reasons for rejection along with other factors like low computer and technological skills. On perception of disadvantages of Mobile banking, security concerns is found to be the most contributor (Tiwari; Buse; & Herstatt, 2006). The customers are reluctant to use mobile for want of security and if steps are taken on the part of banks to eradicate this fear and provide proper operational guidance, then sure majority of the Mobile users could begin to deviate to Mobile Banking (Vanitha, 2013). Security and privacy implications for all stakeholders should be a prerequisite for sanctioning (Vutsengwa & Ngugi, 2013).

2.4.3 Effect of customer perception of risks on performance Mobile Banking

Great number of consumers and potential users of technological innovations have idiosyncratic anticipation of loss; the more certain they perceive the subjective outlooks of loss the more they anticipate risks. They tend to develop inner feeling and particularly, various independent risks which make them develop cold feet towards maximizing the use of such innovations as mobile banking, in turn affects the performance of the channel. Risk barriers accompanied by information and guidance offered by a bank, has the most significant effect on decreasing the usage barrier (Laukkanen & Kiviniemi 2010). The usability of mobile devices exist obvious

defects, these defects will affect consumers' perceived risk, the screen size of mobile device and key region are small, this brings inconvenience when users make input-output operations (Xue & Zhihong, 2010). Furthermore limitation of battery capacity may shut down the service in the course of using mobile banking service. In addition, due to the continuous spread of mobile viruses, the stability of mobile devices system has suffered grave threat, bringing users privacy and economic risk. The perception of loss or inefficiency keeps most users and potential users away from utilizing the channel. Other risks perception encompasses uncertainty on whether a transaction has been completed, and if not who exactly should be consulted; is it the bank or the mobile network provider? These are some of the questions and risks equivalents which must be addressed for maximum usage of mobile banking to be realized.

Fraud is one among other risk factors which is a contributor to negative attitude towards the system and hence slow adoption rate and hence performance of the mobile banking channel. In general, mobile banking system being integration of technology into the banking system where value for money is stored electronically, it is still hard fact which most users are yet to come to terms with. The system overhauls the deeply seethed tradition of having to own or keep physical cash; reality whose rate acceptance varies with adoption and indeed the performance of the banking channel.

2.4.4 Impact of Awareness level on performance of Mobile Banking

Non-price competition, in the form of advertising and marketing efforts play important role in the performance of commercial banks. There is a major relation between advertising expenses and the degree of market competition. Banks use advertising to create perception of quality service through branching and advertising. The two different forms of non-price competition, substitutes and complement each other. Awareness creation is important function of marketing communication. Through appropriate mix and integration of the marketing communication tools; advertisement, salesmanship and so on. Marketing communications is a crucial factor in the process of building trust with the customers and potential market for any organization. It is relationship development processes that creates contextual effect on the rapport between the organization and its target market. Appropriate design of an advertisement and choice of media message execution can yield desired good end result for any business. Minh Hou Poh & Adam, (2007) and Petrova & Yu, (2010) asserts mass media advertising as more precise, in business to communicate in consumer marketing. Advertisement has thus enabled companies to meet communication and other marketing objectives. Customers start the buying process by processing the information sent out by different organizations as mass communications through different forms of advertisement. They then build up a brand knowledge and create a stronger need for the service or product in question which later on may spark a need for more information. The customer then seeks more information about the offer while in the process avail a chance for a sale (Dahlqvist & Linde, 2002).

With technologically innovated products and services like Mobile banking, there might have to be slightly deeper look into the advertisement strategies since in this case, it is not only about creating awareness on availability of the technology but also education on usage and application for maximum performance of the system. This has to be done in consideration of the fact that there is noise and disruption in the market especially from mobile money transfer providers mostly telecom companies that may distort the message or confuse the users and the potential market (Yu, 2012; Okiro & Ndungu, 2013). Reading from the context of adoption rate and paying attention to the rate of innovation of products and services, it is almost certain that unless the customers are sensitized and educated appropriately, the bigger picture of cost cutting, efficiency enhancement and revenue channel creation is a mirage that might not be realized soon. The success of an advertisement therefore is no longer anchored on the creation of ultimate message and choosing the perfect media channel but the right strategies have to be put in place and an advertising plan developed appropriately (Okiro & Ndungu, 2013; Petrova & Yu, 2010; Malhotra, 2011).

2.5 Performance of mobile banking

Mobile money has gained an undeniable place in the minds of Kenyans. According to the online money transfer service World Remit, remittances to sub-Saharan Africa are projected to reach \$33 billion in 2015, which projects a prominent transition to a cashless society (GSMA Intelligence (2014). More than half of mobile money transfer service providers are in sub-Saharan Africa. East Africa has recorded major growth of mobile money services (PYMNTS, 2015; Ondiege, 2015). Ongoing international money transfer initiatives are aimed at enhancing mobile money as a medium of transaction across the globe. M-banking provide consumers with variety of banking services anywhere anytime. But at present this service is not adopted by consumers broadly. iResearch's investigation, records that only 14.3% of mobile phone users are using mobile banking service in China (Zhou et al., 2010; iResearch, 2008). This adoption rate is much lower than other mobile value-added services such as mobile instant messaging (IM) (72%), image and ring tone download (48.4%), mobile games (43.8%), and mobile search (34.3%) (iResearch, 2008). By understanding the factors affecting user adoption and usage of mobile banking services, banks will be able to target bottlenecks that hinder user adoption and improve their services (Zhou et al., 2010).

Many researchers attribute consumers' unwillingness to use M-banking service to safety problem, privacy concerns, demography, income levels, etc. little has been done regarding awareness creation and sensitization, dynamism and evolution on IT based products & services, consistency of the system uptime and mode of orientation/recruitment of new adopters. These are the backbone of the marketing challenges affecting adoption and usage of M-banking system (Yu, 2012; Okiro & Ndungu, 2013; Cudjoe et al., 2015).

2.6 Critique of Existing Literature

There are various studies that have been done on the mobile banking phenomenon. According to Lee & Chung (2009) argued that the main change in financial institutions is that of channels. While it is true that mobile channel is the most recent addition in this league, its potential is yet to be fully exploited. Studies to analyze M-banking and connected factors that impact consumers' taking on of it, have been developed by incorporation of qualitative and quantitative methods. However, beside extensive research on M-banking adoption that has appears in international journals across disciplines, a review of literature on the marketing challenges affecting the channel is still wanting. According to Okiro (2013) impact of mobile and internet banking on performance of financial institutions in Kenya was conducted. The survey was done on 30 financial institutions in Nairobi; the population of interest had been 61 though. The respondents were classified as SACCOs, Microfinance institutions and Commercial Banks. Primary data was then collected; open and close-ended questionnaires were administered one to managers and employees and the other to the customers. A total of 98 questionnaires were issued however 64 of them were returned by both managers/employees and customers. The data was analyzed qualitatively and quantitatively. Commercial banks constituted highest followed by SACCOs and Micro Finance Institutions at the least. The study established further that commercial banks had the highest rate of usage. Responding institutions indicated that mobile banking has impact on their performance. Bigger portion of the customers surveyed use mobile banking but few use it very often majorly to send money. Half of the respondents confirmed to have never used the channel. The study found that mobile banking faces challenges like system delays in money transfer, slowness in processing of transactions high costs, maximum transaction limits and fraud. The researcher suggests solution to the challenges being maintenance of mobile money transfer systems to manage capacity. The study however does not explore on the marketing challenges hindering the slow uptake and/or post adoption usage of the mobile banking channel.

According to Kiura (2014) a study on challenges affecting adoption and use of mobile banking on Equity Bank was conducted, the target population constituted the 171 employees of Equity Bank working at Nakuru Branches. The Nassiuma's formula was employed to calculate the sample size of 64 respondents. A total of questionnaires were issued to the sampled respondents. Out of this number, 53 questionnaires were filled and collected by the researcher which represented 82.8 per cent response rate. Simple random method was used in sampling and Statistical Package for Social Sciences was employed to process and analyze the collected data. The data underwent both descriptive and inferential analysis.

The study established relative advantage to be playing significant role in determining consumers' decision in mobile banking adoption. The study concluded that relative advantage influences attitude that results in behavioral intention to adopt mobile banking and further deduce that, the more customers perceive mobile banking to have a relative advantage over conservative modes of banking, the more they are likely to adopt and use mobile banking services. The researcher recommends to commercial banks to demonstrate to their customers the advantage of adopting and using mobile banking over conservative banking and also advises examination of the effects of mobile banking on profitability. While the recommendation given by the researcher is agreeable, the study does not touch on challenges encountered in marketing of the channel to the target customers.

According to Medhi et al., (2009) the study was focused on Mobile Banking Adoption and Usage by Low-Literate, Low-Income Users in the Developing World; the study involved five M-banking services – Globe Telecom's GCash in the Philippines, Safaricom's M-PESA and Equity Bank's Eazzy 24x7 in Kenya, WIZZIT in South Africa, and Eko in India. Each of the services had a different paradigm for mobile banking both in terms of the service design as well as user interface. The researcher conducted a total of 90 interviews and qualitative user studies: 26 in New Delhi and Bangalore, India, 11 in Nairobi, Kenya, 30 in Bohol, Philippines, and 23 in Cape Town and Glocersdale, South Africa. The interviews were one-on-one, open-ended conversations that lasted for at least an hour. Questions and discussion themes included basic demographic information, access and use of financial services, and access and use of mobile phones. The researcher observed that there were variations in adoption and usage across locations and potential factors responsible for the same. The variations were along a number of parameters namely household type, key service adopted, pace of uptake, frequency of usage, and ease of use. For each observation the researcher developed a set of likely explanatory factors; degree of human mediation, interaction design, transaction time at agent stores, agent proximity and ambiguity, trust, level of awareness, service paradigm, reliability with respect to formal channels, pricing vis-à-vis alternate channels, match between offering and need, employment and location of family members. The researcher recommends these variations in M-banking usage to be imperative to evolving accurate

understandings of impact. The study however does not touch on the marketing challenges inhibiting the maximum usage and/or adoption of the channel.

2.7 Summary

This study comprises four theories that are related to technology adoption and marketing communication. These theories include Innovation Diffusion, Technology Acceptance Model, AIDA Model and DAGMAR model. The literature also depicts adoption and usage to impact greatly on performance of mobile banking. Post adoption usage depends to large extent on how informed the target market is especially on menu maneuvers and ensuring system reliability. Proper and effective way of disseminating the information to the target marketing is through proper integration of the marketing information tools. Once the market is informed, confidence builds up which translate to more adoption and enhanced post adoption usage. The development of dedicated marketing programs to create positive attitudes toward M-banking and to attract consumers (Wessels & Drennan, 2010). Marketers could emphasize M-banking's usefulness and compatibility with the consumers' lifestyles, though the design of the M-banking systems must also minimize the risk and cost that consumer face. Another recommendation places more emphasis on gaining consumers' trust by providing reliable, appropriate information (Lee & Chung 2009).

2.8 Research Gap

There is vast literature on mobile banking in Kenya. For instance, Njenga (2013) conducted a study on the user experience of the mobile phone banking in Kenya and concludes that Usage patterns appear to be largely driven by personal missions and marketing strategies of service providers. Studies by Tobin (2012), shows that the level of knowledge of M-banking services is the main factor on the way consumers perceived the ease with which to use M-banking services and recommends that banks need to craft appropriate strategy to create required knowledge for using mobile banking services by potential and existing customer base. According to Njenga (2011), usage of mobile banking patterns are mostly driven by marketing strategies engaged by the service providers. Communicability of the product benefits and promotional effort are factors to be considered when developing marketing strategies for persuasion to be achieves.

According to Kiura (2014), commercial banks that have embraced mobile banking technology should embark on massive promotional strategies to enlighten current and prospective customers on potential benefits (advantages) of adopting and using the mobile banking services.

According to Medhi, *etal*(2009) variation in the user's ability to conduct M-banking transactions on their mobile phones by themselves was observed; interacting with the M-banking services and navigating through mobile phones in general dulled their ability to use these services effectively.

Apparently, none of these studies outline how these marketing challenges impede the performance of the mobile banking. Furthermore, none of these studies focused on the variables of this study: impact of; technology, user security, customer perception of risk and effects of sensitization/awareness on mobile banking performance. This study therefore seeks to fill this research gap by looking at the marketing challenges affecting the performance of mobile banking.

VI. CHAPTER THREE RESEARCH METHODOLOGY

3.1 Introduction

This chapter explains the method and the research design used in carrying out the study with respect to research questions. The methodology entails research design, target population, sampling design, sampling technique and sample size, data collection instruments, data collection procedures, pilot test and data analysis.

3.2 Research Design

Kothari (2004) states that research design is the prearrangement of settings for collection and analysis of data such that it combines relevance to the research purpose. It is the conceptual structure within which research is conducted. Research design comprises the blueprint for data collection, measurement and analysis. It consists of a sketchon what the researcher have to do from drafting the hypothesis and its operational implications to the final analysis of data. This study used a descriptive research design. Descriptive research refers to a package of methods and procedures that define variables. It involves collecting data that outline events and then organizes, tabulates, depicts, and describes the data (Saunders et al., 2009; Yin, 2009). The design is considered fittingsince it provides an in-depth and comprehensive inquiry essential to be conducted to have a description of the subject under study. Moreover, descriptive design answers the why, how, what and when of a phenomenon (Saunders et al., 2009; Yin, 2009).

3.3 Target Population

According to Mugenda and Mugenda (2003) population is the entire group of individuals or items under consideration in any field of inquiry and has a common characteristic. Yount (2006) defines population as all the subjects you want to study. Population consists of the totality or aggregate of the observations with which the researcher is concerned, an accessible group of people who meets defined eligibility criteria, observes (Cooper

& Schinder, 2011). The target population of this study were four Equity Bank branches and 142 employees (see table 3.1).

Table 3.1: Target population.

Branch	No of Staff	Mid-level Management	Management	Total
Kericho	2	6	3	3 2
Litein	2	9	6	3 8
Narok	2	7	6	3 6
Bomet	2	7	6	3 6
Total				1 4 2

3.4 Sample Size and Sampling Technique

According to Young (2006) sampling is the process of selecting a group of subjects for a study in such a way that the individuals represent the larger group from which they were selected. Samples provide a representative cross section of the population they represent. The study adopted a multi stage random sampling where, the sampling was carried out in stages using smaller and smaller sampling units at each stage. This sampling technique was chosen because the sample frame is composed of a very heterogeneous population and the study is keen on inclusivity. By using this method, the study was able to isolate a representative sample that answers the research questions set. A sample of primary units was selected and then a sample of secondary units selected within each primary unit. In the context of this study, South Rift region is divided into four clusters or branches (see table 3.1). Using multistage stratified random sampling a sample size of 105 individuals were surveyed. A representative sample of 105 individuals were then picked randomly and shared across the clusters based on their individual population ratios .i.e. as shown below. This forms the secondary units in this context.

Sampling formula

A sample size was selected from the population using random sampling technique. Based on Yamane formula, sample that represented the population was selected (GfK Polonia, 2013). This formula assumes a normal distribution and thus it is assumed that the respondents are distributed normally in relation to the parameters under study i.e marketing challenges affecting performance of mobile banking.

$$n = \frac{142}{1 + 142(0.05)^2} = 105 \text{ employees.}$$

Where:

n = sample size, N = is the population size and, e = is the level of precision which is 10%; at 95% confidence level and p is assumed to be = .5

Table 3.2: Sample

Branch	Target population	Sample size based on distribution of employees	Percentage
Narok	3	6	2 7 2 5
Kericho	3	2	2 4 2 3
Litein	3	8	2 8 2 7
Bomet	3	6	2 7 2 5
Total	1	4	2 1 0 5 1 0 0

The table 3.1 shows the sample to be used in data collection based on the total population of employees of Equity Bank in South Rift region. Mugenda & Mugenda (2003) argue that for a sample to be representative enough, it should be at least 10% of the target population. The sample size in this study is 74% which is considered adequate.

3.5 Data Collection Instruments

The study relied largely on primary data. Kothari (2004) states that primary data is the data collected the first time. In this study, questionnaires were administered for use in data collection. Semi-structured questionnaires were used in this study to collect data. Questionnaires are the most commonly used methods when respondents can be reached and are willing to co-operate. Since the staff working at the bank could read and write, the use of questionnaires was the most effective to use in this study.

The method of collecting data by use of questionnaires is most extensively employed in various studies because its economical; it can be used even when the universe is large and is widely spread geographically, it is free from bias, there is adequate time for respondents to give well thought out answers and is convenient as well (Saunders et al., 2009). This mode of data collection is effective since a large number of subjects who are able to

read and write independently can be reached. Besides, Mugenda & Mugenda (2003) observed that, questionnaires are very economical in terms of time and other economic resources are concerned. Secondary data on performance of mobile banking were obtained from secondary sources mainly Equity banks audited accounts, research publications and CBK.

3.5.1 Data Collection Procedure

Before proceeding to the field for data collection, the researcher obtained a data collection letter from the university. Drop and pick up later method was used to collect the data for this study. When dropping the questionnaires, the respondents were educated that the data will only be used for academic purposes.

3.6 Pilot Test

After constructing the questionnaires, a pilot test was carried out by the researcher to test the dependability and the validity of the instrument. Pilot test in this context is a phase where research instruments are distributed to a number of individuals in the target population who are not included in the sample size so as to check the reliability and legitimacy of the instruments. In addition the researcher sought the opinions of experts in the field of study particularly the supervisor. This helped to improve the reliability and consistency of the data collected. The researcher chose a pilot group of 6 staff from the bank to participate in the test. The dependability of the questionnaires and the internal consistency techniques were measured statistically using Cronbach's alpha. The alpha value ranges from 0 to 1; reliability is directly proportional to the value. (Mugenda and Mugenda, 2003) states coefficient of 0.6-0.7 is a commonly accepted as having acceptable reliability. On the other hand, a coefficient of 0.8 or higher indicates higher level of reliability.

3.7 Data Processing and Analysis

Kothari (2004) refers data analysis to the computation of certain measures along with searching for patterns of relationship that exist among data-groups. It is an operational process whereby inspecting, cleaning, transforming, and modeling data takes place in order to filter useful information for developing conclusions and aiding in decision making. Data analysis was carried out as follows: on the overall, content analysis was used to analyze the data. Data coding was done where the statements were assigned an appropriate code like 1, 2 etc. for ease of analysis (Neuman, 2006). Emerging themes were put in categories the data was then distilled further in order to establish themes that are abstract (Mason, 2010; van Esch and van Esch, 2013). Finally, comparisons were done between the emerging themes which will include arguments and counter arguments. The analysis were concluded, implications drawn from it and inferences done. The study used SPSS version 23 software for data coding and analysis and a list of actions, specific words, phrases and adjectives were loaded into the analysis software which included certain rules that guided the study. Quantitative data analysis involved using descriptive statistics to obtain an understanding of the data.

The data was then analyzed using descriptive statistics methods such as the frequencies, means and the standard deviations. In addition, the summary of the basic logic of ANOVA was the discussion of the purpose and hence analysis of the variance was used. The purpose of the analysis of the variance was done mainly to test differences in means (for groups or variables) for statistical significance. The accomplishment was done by analyzing the variance, which was done by partitioning the total variance into the component that were due to true random error and the components that were due to differences between means. Pearson's correlation analysis was run to determine the existence and significance of the relationship between technological innovations, user-security concerns, perceived risks and awareness level on the performance of M-banking and a value greater than 0.5 for independent variables was deemed significantly correlated with dependent variable i.e mobile banking performance.

3.7.1 Analysis model

The effect of independent variables on the dependent variable was presented using the regression model below:

$$Y = \beta_0 + \beta_1 C_1 + \beta_2 C_2 + \beta_3 C_3 + \beta_4 C_4 + e$$

WHERE,

Y	-	Performance of M-banking
β_0	-	Constant
β	-	Coefficients to be estimated
C_1	-	Security
C_2	-	Perceived risks
C_3	-	Awareness level
C_4	-	Technology
e	-	Error term

3.7.2 Tests of Significance

This included the F-Statistic (ANOVA table) and more importantly, R2 as a measure of variation between independent and dependent variables was used. Thus, F-test was used to test the significance of the relationship between M-banking performance against four independent variables technology, security, perceived risks and awareness level.

3.7.3 Correlation Analysis

Correlation analysis was carried out on the data for two reasons. First, to test strength of the relationship between the variables of the study and, second, as suggested in Hair et al. (2010), to detect the presence of multicollinearity among the variables. In the line of the suggestion of Coakes & Ong, (2011), that Pearson product-moment coefficient is useful in establishing correlation between continuous variables, the statistical tool was used for the correlation analysis at a statistically significant level ($p < .05$).

3.8 Ethical Considerations

Ethical considerations such as confidentiality, anonymity and voluntary consent are very important issues in research (Mugenda & Mugenda, 2003). Permission was first sought from relevant authorities including Jomo Kenyatta University of Agriculture and Technology to confirm that the information collected would be used for academic purposes only. In addition, the researcher attached a consent form where the respondents were given a choice to freely participate in the study at their free will and not influenced.

VII. CHAPTER RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

This chapter presents findings from the analysis of the questionnaires as collected from the field. The findings are presented in line with the objectives of the study which were: to establish impact of technological innovation on performance of M-banking in South Rift region; to determine how user-security concerns affect performance of M-banking in South Rift region; to establish the effect of customer perceived risks on the performance of M-banking in South Rift region and to determine the effect sensitization on the performance of M-banking in South Rift region. Thus, this section analyses, presents, interprets and discusses information collected from the respondents during the field work. The analysis is divided into three sections namely: section 4.2 presents a detailed descriptive analysis of the data, section 4.3 presents the findings; section 4.4 presents inferential analysis.

4.2 Descriptive Analysis

4.2.1 Response Rate

The study targeted 142 employees of Equity Bank branches in South Rift region from which a sample of 105 was drawn. Out of the distributed 105 questionnaires, 20 questionnaires were not filled out thus were disregarded while 85 were fully filled and returned for analysis translating to a response rate of 81%. This response rate is within the statistically significant response rate for analysis and generalization of findings to the entire population (Mugenda & Mugenda, 2003).

4.2.2 Demographics

The respondents were asked to indicate their demographics from the choices given and the results for age, gender, department attached to, years of experience in the industry and years of service at the banks are shown below.

4.2.2.1 Age of the respondents

The researcher believed that age and experience in the company and industry go hand in hand. Experience comes with age and better understanding of the marketing challenges affecting performance of mobile banking (M-banking). Results are shown in table 4.1.

	F r e q u e n c y	P e r c e n t
1 8 - 2 5	4	4 . 7
2 5 - 3 5	6	7 7 8 . 8
3 5 - 4 5	1	2 1 4 . 1
4 5 - 5 5	2	2 . 4
O v e r 5 5	0	0
T o t a l	8	5 1 0 0 . 0

Table 4.1 shows that majority 78.8% of the respondents' were aged 25-35 years followed by those aged 35-45 years at 14.1% then 18-25 years at 4.7% and lastly 18-25 years and over 55 years at 2.4% and 0% respectively. This shows that most employees at the company were aged between 25 to 45 years with a cumulative percentage of 92.9%. This implies that the respondents had adequate experience in the company to respond to questions about marketing challenges affecting performance of mobile banking (M-banking).

Table 4.2: Respondents' gender

	F r e q u e n c y	P e r c e n t
M a l e	5 6	6 5 . 9
V a l i d F e m a l e	2 9	3 4 . 1
T o t a l	8 5	1 0 0

Both male and female were targeted and results in table 4.2 revealed that majority of the respondents' were male at 65.9% and female were 34.1%. This could imply that there are more male employees at Equity Bank in South Rift region than female.

In addition, the researcher sought to investigate the respondent's number of years of experience in industry and results are shown in Table 4.3 below.

Table 4.3: Years of experience in the industry.

Y e a r s o f e x p e r i e n c e	F r e q u e n c y	P e r c e n t
0 - 5 y e a r s	6 3	7 4 . 1
6 - 1 0 y e a r s	2 0	2 0
1 1 - 2 0 y e a r s	2 5	5 . 9
2 0 y e a r s a n d a b o v e	0	0
T o t a l	1 8 5	1 0 0

As shown in table 4.3, most respondents' 74.1% had an industry experience of 0.5 years followed by 6-10 years at 20% then 11-20 years at 5.9% and finally 20 years and above at 00%. This shows that the respondents had adequate industry experience to respond to questions on marketing challenges affecting performance of mobile banking (M-banking).

Table 4.4: Years of service at the bank

Y e a r s o f s e r v i c e	F r e q u e n c y	P e r c e n t
0 - 5 y e a r s	6 3	3 7 4 . 1
6 - 1 0 y e a r s	2 0	2 3 . 5
1 1 - 2 0 y e a r s	2 2	2 . 4
2 0 y e a r s a n d a b o v e	0	0
T o t a l	1 8 5	5 1 0 0

As shown in table 4.4, most respondents 74.10% had an industry experience of 0-5 years followed by 6-10 years at 23.5% then 11-20 years at 2.4% and finally 20 years and above at 0%. This shows that the respondents had adequate experience at the company to respond to questions on marketing challenges affecting performance of mobile banking (M-banking).

4.3 Descriptive statistics

Descriptive data is used to give a general overview of the data. The respondents were asked to rate, on a five-point scale, the extent to which they agreed with statements related to the relationship between marketing factors (security, perceived risks, awareness level and technology) and performance of mobile banking. The ratings ranged from 1 (strongly disagree) to 5 (strongly agree). Responses to various statements under each marketing factor were aggregated and a composite index (mean score) computed for each variable. The results are presented in table 4.3 along with standard deviations.

Table 4.3: Descriptive statistics for main variables

Main Variables	Minimum	Maximum	Mean	S . D e v
Security	2	5	3 . 4 4 0	. 8 7 6
Perceived risks	3	5	4 . 2 1 0	. 9 4 7
Awareness level	2	4	4 . 8 3 0	. 7 9 4
Technology	2	4	3 . 2 3 0	. 6 9 5

Table 4.3 shows that awareness level was rated highest on average with a mean of 4.830 with responses deviating from this mean by a standard margin of 0.794. This is followed closely by perceived risks with the mean of 4.210, with standard deviation of 0.947, then security with a mean of 3.440 and a standard deviation of .876 and finally technology with a mean of 3.230 and standard deviation of 0.695 in that order. This ordering could be interpreted to mean that awareness level constituted the most significant marketing factor that influences M-banking performance. Conversely, technology was the lowest factor affecting M-banking performance although it was still well above the average (mid-point), implying it was also an important factor affecting M-banking performance.

4.4 Marketing factors influencing the performance of mobile banking

4.4.1 Mobile banking user performance

The respondents were asked to indicate their level of familiarity with mobile banking services and results are shown in in table 4.6.

Table 4.6: Levels of familiarity with mobile banking services

	Frequency	Percent
Not familiar	0	0
Somewhat familiar	7	20
Familiar	40	77
Very familiar	8	3
T o t a l	55	100

As shown in table 4.6, most respondents 65% were familiar with mobile banking services followed by 20% who were somewhat familiar with mobile banking services then followed by 9% who were very familiar with mobile banking operations and finally 0% who said that they were not familiar with mobile banking operations. On the overall, the respondents who were familiar and very familiar with mobile banking operations or services were 77% compared to a total of 20% who were not familiar and somewhat familiar with mobile banking services.

Figure 4.3: Levels of familiarity with mobile banking services

As shown in figure 4.3, most respondents 65% were familiar with mobile banking services followed by 19% who were somewhat familiar then 9% who were very familiar and finally 7% who were not familiar. On the overall, the respondents who were familiar and very familiar were 75% compared to a total of 26% who were not familiar and somewhat familiar.

The respondents were asked to indicate what percentage of customers who have bank accounts and uses mobile banking. The results are shown in table 4.7

Table 4.7: Percentage of customers who have bank accounts and use mobile banking

	F r e q u e n c y	P e r c e n t
L e s s t h a n 1 0 %	0	0
1 0 - 2 9 %	1 6	1 9
3 0 - 5 0 %	5 6	5 5
5 1 - 8 0 %	1 4	1 6
O v e r 8 0 %	0	0
T o t a l	5 1	0 0

As indicated in table 4.7, most respondents 65% believed at the time of the study that 30-50% of bank account holders use mobile banking followed by those who said 10-29% at 19% and finally those who said 51-80% at 16%. None of the respondents said less than 10% and over 80%. The results show that bank account holders are still skeptical with using mobile banking.

Furthermore, the respondents were asked which of the below uses is more prominent to subscribers or users of mobile banking at the bank. This was measured on a scale of 1-5 where 1=Not at all; 2=Sometimes 3=Only when required 4=Frequently 5= All the time and results are shown in table 4.8

Table 4.8: Uses that is more prominent to subscribers or users of mobile banking at the bank

U s e	1	2	3	4	5
P a y b i l l s	0	0	2 2 %	5 5 %	2 3 %
T r a n s f e r f u n d s	0	2 1 %	6 5 %	1 1 %	3 %
View transactions history	0	1 4 %	8 6 %	0 %	0 %
C h e c k b a l a n c e s	0	0	7 7 %	2 3 %	0 %
Make and conduct deposit checks	0	9 1 %	9 %	0 %	0 %
View investment and market data	1 4 %	6 4	2 2 %	0 %	0 %
L o c a t e b r a n c h e s	3 3 %	1 6 %	5 1 %	0 %	0 %
P a y c r e d i t c a r d s a n d l o a n s	2 3 %	2 6 %	5 1 %	0 %	0 %

Table 4.8 shows the responses on the prominent uses of mobile banking to customers. As the result reveal, it appears that most customers of the bank use mobile banking to pay bills at 55% frequently responses followed by 23% all the time and 22% only when required. In addition, the second most prominent use is checking balances at 77% only when required responses and 23% frequently. The other prominent use of mobile banking is transfer of funds with 65% only when required responses, 11% frequently and 3% all the time. Viewing transactions history also ranks high on list of prominent uses at 86% only when required responses. The findings imply that the most prominent use of mobile banking to subscribers or users of at the bank is paying bills and checking balances. Thus, the bank should try to encourage users and bank account holders to use the other services of mobile banking such as funds transfer, making and conducting deposit checks and viewing investment and market data in addition to paying bills and checking balances.

4.4.2 Value Generated Towards Customer

The study sought to establish the value generated towards customer through the use of M-banking which in turn affects M-banking performance. The respondents were asked to indicate their level of acceptance with the following activities that generate value to customers. This was measured on a scale of 1-5 where 1= Strongly disagree, 2=Disagree, 3=Neither agree nor disagree, 4=Agree and 5=Strongly agree. Results are shown in tables 4.9

Table 4.9: Value Generated Towards Customer.

V a l u e G e n e r a t e d T o w a r d s C u s t o m e r	1	2	3	4	5
Timely delivery of services/data transaction rate	0	11	20	60	9

Mobile security/privacy of information and risks in mobile banking	0	0	0	85	15
T r a n s a c t i o n c o s t s	0	5	35	50	10
R e l i a b i l i t y	0	10	40	45	5
H i g h s t a n d a r d s o f c u s t o m e r s e r v i c e	0	32	48	20	0
A f t e r s a l e s s e r v i c e s	28	22	14	30	6
P r o m p t n e s s	0	10	77	13	0
Mobile applications (accessibility, usability, functionality, and convenience)	0	0	20	70	10
D e l i v e r v a l u e a t l o w c o s t	0	0	50	40	10
T e c h n i c a l i t y a n d c o m p a t i b i l i t y	0	45	15	40	0
Increase awareness of need for mobile banking	0	10	20	65	5
Match customer needs to products and services	22	28	39	11	0

As shown in table 4.9, one of the greatest values generated towards customer that has impacted positively or negatively on performance of M-banking in south rift region is mobile security/privacy of information and risks in mobile banking with 85% agree and 15% strongly agree responses followed by mobile applications (accessibility, usability, functionality, and convenience) at 70% agree and 10% strongly agree responses. Timely delivery of services/data transaction rate also ranks high on the effect of innovation on m-banking performance through values generated towards customer at 60% agree and 9% strongly agree responses. Others which are important are transaction costs with 60% cumulative strongly agree and agree responses, increase awareness of need for mobile banking at 70% cumulative agree and strongly agree responses then deliver value at low cost. On the overall, the results show that greatest value generated towards in relation to mobile banking services is mobile security/privacy of information and risks in mobile banking followed by mobile applications (accessibility, usability, functionality, and convenience) and timely delivery of services/data transaction rate. The idea is that customers of Equity bank South rift region derive maximum value from mobile banking if they are assured of mobile security/privacy of information, reduction in risks in mobile banking, delivery of data or services on a timely basis and mobile applications that are compatible with M-banking platforms.

4.5 Marketing factors influencing the performance of mobile banking.

4.5.1 To establish impact of technological innovation on performance of M-banking in South Rift region.

Additionally, the respondents were asked to indicate their level of acceptance with the following statements relating to specific marketing challenges and mobile banking performance on a scale of 1-5 where 1=strongly disagree, 2=Disagree, 3=Neither agree nor disagree, 4=Agree and 5=Strongly agree. Results are shown in table

4.4.1 To establish impact of technological innovation on performance of M-banking in South Rift region

In relation to technology, the respondents were asked to indicate their level of acceptance. Results are shown in table 4.10.

Table 4.10: technology challenges and mobile banking performance

S t a t e m e n t	1	2	3	4	5
Perceived ease of use (usability) has affected performance of mobile banking	0	0	1 2	5 4	3 4
Perceived usefulness (technical reasons) has affected performance of mobile banking	0	0	0	9 0	1 0
Mobile applications (accessibility, functionality, and convenience) has affected performance of mobile banking	0	0	5 0	5 0	0

As shown in table 4.10, Perceived usefulness (technical reasons) has affected performance of mobile banking was ranked as the highest technology challenge affecting mobile banking performance with 90% agree and 10% strongly agree responses. This was followed by Perceived ease of use (usability) at 54% agree and 34% strongly agree responses with 12% choosing to remain neutral. Finally, mobile applications (accessibility, functionality, and convenience) has affected performance of mobile banking ranked low among technology challenges with 50% agree responses with 50% choosing to remain neutral. Perhaps this is due to the fact that the respondents have little control over mobile phone handset functionalities.

4.5.2 To determine how user-security concerns affect performance of M-banking in South Rift region.

In relation to user-security concerns, the respondents were also asked to indicate their level of acceptance. Results are shown in table 4.11.

Table 4.11: user-security concerns and mobile banking performance.

S t a t e m e n t	1	2	3	4	5
Personal information security (privacy) has affected performance of mobile banking	0	0	2 0	7 7	3
Virtual community security has affected performance of mobile banking	1 1	9	5 9	2 1	0
Frauds and fraud control has affected mobile banking performance	0	2 0	1 3	6 7	0

As shown in table 4.11, most respondents 77% agreed that personal information security (privacy) has affected performance of mobile banking followed by frauds and fraud control has affected mobile banking performance at 67% agree responses and finally virtual community security has affected performance of mobile banking at 21% agree responses.

4.5.3 To establish the effect of customer perceived risks on the performance of M-banking in South Rift region.

In relation to customer perceived risks, the respondents were also asked to indicate their level of acceptance. Results are shown in table 4.12.

Table 4.12: Customer perceived risks and mobile banking performance

S t a t e m e n t	1	2	3	4	5
Guaranteed authentication and non-repudiation (knowledge of parties in a transaction) affects performance of mobile banking	0	0	1 0	8 7	3
Time and convenience affects performance of mobile banking	0	0	0	9 7	3
Performance risks has affected performance of mobile banking	0	3	7 7	2 0	0

As shown in table 4.12, time and convenience affects performance of mobile banking ranked high among customer perceived risks at 97% agree responses followed by guaranteed authentication and non-repudiation (knowledge of parties in a transaction) affects performance of mobile banking at 87% agree responses and finally performance risks has affected performance of mobile banking at 20% agree responses. This implies that time and convenience risk which refers to a loss of time and any inconvenience incurred due to the delays of receiving payments or the difficulty of navigation has the greatest influence on M-banking performance followed by guaranteed authentication and non-repudiation.

4.5.4 To determine the effect of sensitization on the performance of M-banking in South Rift region

In relation to effect sensitization, the respondents were also asked to indicate their level of acceptance. Results are shown in table 4.13.

Table 4.13: Effect of Awareness level/sensitization and mobile banking performance

S t a t e m e n t	1	2	3	4	5
Lack of interest or customer/user apathy has affected performance of mobile banking	0	0	0	9 3	7
Customer behaviour (preference for traditional modes of banking) has affected performance of mobile banking	0	0	5	9 5	0
Perceived high charges or hidden transaction costs has affected performance of mobile banking	0	0	0	8 8	1 2

As shown in table 4.8, all factors under effect of sensitization on mobile banking performance were important although lack of interest or customer/user apathy has affected performance of mobile banking ranked slightly high with 93% and 7% agree and strongly agree responses respectively followed by perceived high charges or hidden transaction costs has affected performance of mobile banking with 88% and 12% agree and strongly agree responses respectively and lastly Customer behaviour (preference for traditional modes of banking) has affected performance of mobile banking with 95% agree responses. On the overall and in comparison with the other variables i.e. technology, perceived risks and user security concerns, sensitization or awareness of M-banking is the most important marketing factor influencing the performance of mobile banking of Equity bank in South rift region.

4.6 Overall Bank strategies, M-banking performance and tangible benefits

On a scale of 1-5 where 1= Strongly disagree, 2=Disagree, 3=Neither agree nor disagree, 4=Agree and 5=Strongly agree, the respondents were asked to indicate the level of acceptance with the following statements relating to mobile banking performance. Results are shown in table 4.14

Table 4.14: Bank strategies and M-banking performance

S t a t e m e n t	1	2	3	4	5
Bank has an elaborate system to eliminate concerns for mobile banking security	5	10	50	35	0
Bank has ensured that mobile banking technology is understood by customers	0	0	77	23	0

Bank strives to reduce the level of perceived Risks among customers/users	0	0	13	87	0
Bank has strategies in place to raise awareness about M-banking	0	0	67	33	0

As indicated in table 4.14, indeed the bank strives to reduce the level of perceived Risks among customers/users with 87% agree responses. Most respondents Bank 77% and 67% chose to remain neutral on the statements that the bank has ensured that mobile banking technology is understood by customers and bank has strategies in place to raise awareness about M-banking respectively. The overall consistency in the results show that the bank requires to do a lot in sensitization or raising awareness about M-banking especially on issues such as perceived risks, security and technology challenges.

Furthermore, the respondents were asked to indicate what tangible benefits they hope to achieve through continuous use of mobile banking, Results are shown in table 4.15

Table 4.15: Tangible benefits through continuous use of mobile banking

B e n e f i t	Frequency	Percent
Improved customer experience	8 5	1 0 0
Increased sales	8 5	1 0 0
Higher quality products and services	6 3	7 4
New product innovations	7 7	9 1
More efficient operations	8 5	1 0 0
Better, fact based decision making	4 7	5 5
Increased customer numbers/accounts	8 5	1 0 0

Table 4.15 shows the possible tangible benefits that accrue to the bank through continuous use of mobile banking by customers. The results show that improved customer experience increased sales, more efficient operations and increased customer number/accounts ranks high among the tangible benefits with 100% responses followed by new product innovations at 91% then high quality products and services at 74% and finally better fact based decision making at 55%. This implies that use of mobile banking services by customers of Equity bank South Rift region brings about huge benefits especially increased sales, improved customer experience and efficiency in operations. Thus, Equity bank South Rift region should invest heavily in mobile banking infrastructure including creating awareness about mobile banking services and dispelling fears of risks and security since it has huge tangible benefits

4.6 Inferential statistics

4.6.1 Pearson’s Correlation

This study is interested in establishing if there is a relationship between marketing challenges and M-banking performance i.e. to see if they are correlated. The previous descriptive analyses showed a linear relationship between marketing challenges and M-banking performance. Pearson’s correlation was therefore used to categorise the type of correlation (positive or negative) by considering the independent variables (marketing challenges) that were strongly related with the dependent variable (M-banking performance). To develop the Pearson’s correlation matrix, the standard deviation and means of the variables were calculated and grouped into four dimensions; user security concerns, customer perceived risks, awareness level and technology. The Pearson’s correlation coefficient is denoted by r and is by design constrained as follows: $-1 \leq r \leq 1$. The decision rule is such that if $p \leq 0.5$, the test is significant and if $p \geq 0.5$, the test is not significant. Furthermore, positive values denote positive linear correlation; negative values denote negative linear correlation; and a value of 0 denotes no linear correlation. The closer the value is to 1 or -1, the stronger the linear correlation. Table 4.11 shows the Pearson’s correlation coefficient matrix for M-banking performance and marketing challenges.

Table 4.16: Pearson’s Correlation Coefficient Matrix

		M-banking performance	Security	Perceived risks	Awareness level	Technology
M-banking performance	Pearson Correlation	1				
	Significance					
Security	Pearson Correlation	-.534**	1			
	Significance	.003				

Perceived risks	Pearson Correlation	- . 6 9 6 * *	. 7 3 4 * *	1		
	Significance	. 0 2 6	. 0 0 3			
Awareness level	Pearson Correlation	. 7 3 4 * *	. 5 9 6 * *	- . 1 2 0	1	
	Significance	. 0 4 6	. 0 2 6	. 3 7 9		
Technology	Pearson Correlation	. 3 6 1 * *	. 3 6 1 * *	. 3 9 0 * *	. 0 2 5	1
	Significance	. 0 1 6	. 0 2 6	. 0 0 3	. 8 5 3	

Note:** Correlation is Significant at 0.05.

Table 4.16 shows the Pearson’s correlation coefficient matrix. Firstly, the matrix shows that there exists a positive correlation between two marketing challenges (awareness level and technology) and M-banking performance. This positive correlation implies that when the two marketing challenges are varied or increased by a certain percentage, M-banking performance has a tendency to also increase or change positively. In addition, there exists a negative correlation between two marketing challenges (customer perceived risks and user security concerns) and M-banking performance. This negative correlation implies that when the two marketing challenges are varied (decreased or increased) by a certain percentage, M-banking performance has a tendency to also move in the opposite direction. However, for each marketing challenge and M-banking performance, the difference lies in the strength of the correlation. Firstly, there exist a strong and significant positive relationship between awareness level and M-banking performance at 0.734 i.e. awareness level, $r(83)=.734$, $p=0.046$. This strong positive correlation means that when awareness level or sensitization changes positively or increases, M-banking performance increases. Secondly, the matrix shows that there exists a strong negative correlation between customer perceived risks and M-banking performance at $r=-.696$ i.e. customer perceived risks, $r(83)=-.696$, $p=0.026$. This strong negative correlation means that when customer perceived risks increases, M-banking performance decreases and vice versa. Thirdly, the matrix shows that there exists a moderate negative correlation between user security concerns and M-banking performance at $r=-.534$ i.e. user security concerns, $r(83)=-.534$, $p=0.003$. This moderate negative correlation means that when user security concerns increases, M-banking performance decreases and vice versa but not in the same magnitude as customer perceived risks. Lastly, the matrix shows that there exists a weak positive correlation between technology and M-banking performance at $r=0.361$ i.e. technology $r(83)=.361$, $p=.016$. This weak positive correlation means that when technology changes positively i.e. with improved technology, M-banking performance may increase but not in the same magnitude as awareness level.

4.6.2 Test for Multicollinearity

There exists multicollinearity problem when some independent variables are highly related (Pallant, 2007). With regression, as with so many things in life, there comes a point where adding more is not better. In fact, sometimes not only does adding "more" factors to a regression model fail to make things clearer, it actually makes things harder to understand (Martz, 2013). In regression, "multicollinearity" refers to predictors that are correlated with other predictors. Multicollinearity occurs when your model includes multiple factors that are correlated not just to your response variable, but also to each other. In other words, it results when a study has factors that are a bit redundant. Multicollinearity increases the standard errors of the coefficients. Increased standard errors in turn mean that coefficients for some independent variables may be found not to be significantly different from 0. In other words, by overinflating the standard errors, multicollinearity makes some variables statistically insignificant when they should be significant. Without multicollinearity (and thus, with lower standard errors), those coefficients might be significant (Hair et al., 2010; Martz, 2013).

One way to measure or detect multicollinearity is the use of tolerance values within the threshold of .10 (Hair et al., 2010; Martz, 2013). The "tolerance" is an indication of the percent of variance in the predictor that cannot be accounted for by the other predictors, hence very small values indicate that a predictor is redundant, and values that are less than .10 may merit further investigation (Hair et al., 2010; UCLA, 2015; Martz, 2013). The results of multicollinearity for the variables in are documented in table 4.17

Table 4.17: Test for Multicollinearity

V	a	r	i	a	b	l	e	s	T	o	l	.	
S	e	c	u	r	i	t	y	.		2	6	1	
P	e	r	c	e	i	v	e	d	r	i	s	k	s
A	w	a	r	e	n	e	s	s	l	e	v	e	l
T	e	c	h	n	o	l	o	g	y	.	7	1	3

Note: Tol. = tolerance

As shown in table 4.17, in all cases the values of tolerance for each independent variable were within the threshold of .10 suggesting that multicollinearity did not pose any problem in the study although the variables were moderately correlated. The correlation analysis in table 4.16 equally indicates similar result as highest correlation is .379. But as noted earlier, very small values indicate that a predictor is redundant, and values that are less than .10 may merit further investigation. The results show that security with a value of .261 could be redundant in the study and may be done away with although it had a moderate correlation with M-banking performance. Perceived risks, awareness level and technology with tolerance values of .938, .942 and .713 respectively are close to .10 implying that they are not redundant or are not correlated to each other.

4.6.3 Reliability and validity

Prior to this, a reliability test was done using Cronbach's alpha test. Results are shown in table 4.18

Table 4.13: Reliability and validity

Marketing challenge	Coefficient Alpha	Reliability
Security	0.738	
Perceived risks	0.912	
Awareness level	0.824	
Technology	0.725	

According to Mosadeghrad & Yarmohammadian (2006) an alpha value of 0.70 is considered as acceptable reliability for a study; Table 5 shows that the components had on average acceptable consistency in this regards. All the components under investigation having an average alpha value of 0.70 and more suggesting high internal consistency.

4.6.4 Model fit and ANOVA

Table 4.14 Model fit

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.718(a)	.549	.535	.51273

a. Predictors: (Constant), Security, Perceived risks, Awareness level and Technology

b. Dependent Variable: M-banking performance

Table 4.19 shows the results for variations between the dependent and independent variables. R2 is the coefficient of determination and shows how M-banking performance is influenced by the marketing challenges. With R2 .549 for the model, this means that the independent variables in the model i.e. user security concerns, customer perceived risks, awareness level and technology could offer about 54.9% explanation of the variance in the dependent variable M-banking performance. This implies that variations in independent variables causes 54.9% change in dependent variable M-banking performance. But, the conservative explanation offered by adjusted R square was 53.5%. This is a strong relationship such that the predictors identified in this study are great influencers of M-banking performance. The 45.1% remaining implies that there are other factors that affect M-banking performance other than the four marketing challenges identified in the study (user security concerns, customer perceived risks, awareness level and technology). Hence, this implies that marketing challenges (user security concerns, customer perceived risks, awareness level and technology) contribute to M-banking performance. This numerical evidence is strong enough to support the notion that there exists a strong relationship between the study variables positively and negatively.

Table 4.20: Analysis of Variance (ANOVA) Results

Model	Sum of Squares	df	Mean Square	F	Value of significance less than 5% (Sig) p-value
1 Regression	2.3914	4	.60	74.242	.001 ^b
Residual	4.516481	5	.903296		
Total	6.907881	9			

a. Dependent Variable: M-banking performance

b. Predictors: Security, Perceived risks, Awareness level and Technology

Note: Value of significance less than 5% (Sig) p-value
Critical value = 2.412

The ANOVA analysis is intended to investigate the variation in variables; the independent variables explain the observed variance of the outcome of the study and outcome level of employee performance. The ANOVA statistics indicate that the regression model had a significance level of less than 5% i.e. p<0.05 indicating that the model was ideal for making a conclusion on the population parameters as the value of significance (p-value)

since was less than 5%. Moreover, the coefficient of determination (the percentage variation in the dependent variable being explained by the changes in the independent variables) R² equals 0.549, that is, the independent variables with only 45.1% unexplained. The ANOVA results indicate that the independent variables significantly (F=4.242, p=0.001) explain the variance in M-banking performance i.e. marketing challenges can enhance or decrease M-banking performance.

The F critical at 5% level of significance was 4.242. Since F calculated is greater than the F critical (4.242>2.412), this shows that the overall model was significant. The significance is less than 0.05, thus indicating that the predictor variables, explain the variation in the dependent variable which is M-banking performance. If the significance value of F was larger than 0.05 then the independent variables would not explain the variation in the dependent variable.

4.6.5 Distribution of Coefficients

The table of coefficients below measures the relationship between the various variables, that is, the reward systems versus employee performance. The table also shows the coefficient Betas for each of the predictor and its values indicate the individual contribution of each predictor to the model.

b. Predictors: (Constant), Security, Perceived risks, Awareness level and Technology						
M o d e l	Unstandardized Coefficients		Standardized Coefficients		t	Sig.
	B	Std. Error	B	e t a		
(Constant)	1.823	. 0 7 2			1.601	.001
1 Security	-. 632	. 1 8 3	-. 2 7 6		2.411	.015
Perceived risks	-. 755	. 2 3 4	-. 0 8 4		2.092	.002
Awareness level	. 879	. 5 4 1	. 0 5 1		1.882	.003
Technology	. 568	. 0 8 4	. 0 4 2		2.782	0.03

a. Dependent Variable: M-banking performance

Note Sig. (Testing hypothesis accept p<0.05), p-value

The model shows a statistically significant positive relationship between awareness level ($\beta = .879$, $t= 1.882$, $p<0.05$) and M-banking performance. There is also a statistically significant positive relationship between technology ($\beta = .568$, $t= 2.782$, $p<0.05$) and M-banking performance. However, there is a statistically significant negative relationship between customer perceived risks, ($\beta = -.755$, $t= 2.092$, $p<0.05$), user security concerns ($\beta = .632$, $t= 2.411$, $p<0.05$) and M-banking performance. The consistency of regression coefficients on the four marketing challenges suggests that these variables are important factors influencing M-banking performance with awareness level and technology influencing M-banking performance positively while user security concerns and customer perceived risks negatively. All the independent variables were significant predictors of employee performance since their significant value was less than ($p<0.05$).

From the regression model the following regression equation was derived:

$$Y = 1.823 - .632 C_1 - .755 C_2 + 0.879 C_3 + 0.568 C_4 + \epsilon$$

Where;

Y= M-banking Performance

C₁= Security

C₂= Perceived risks

C₃= Awareness level

C₄= Technology

ϵ = Error term

Constant = 1.823, shows that if security, perceived risks, awareness level and technology are all rated as zero or held constant; M-banking performance would be a factor of 1.823.

C₁ = -.632, shows that one unit increase in security results in a decrease in M-banking performance by a factor of -0.632 and vice versa

C₂ = -.755, shows that one unit increase in perceived risks results in a decrease in M-banking performance by a factor of -0.755 and vice versa

C₃ = 0.879, shows that one unit increase in awareness level results in an increase in M-banking performance by a factor of 0.879

C₄ = 0.568, shows that one unit increase in technology or technology change results in an increase in M-banking performance by a factor of 0.568

From the above regression model, holding security, perceived risks, awareness level and technology constant, M-banking performance in Equity bank would be 1.823. Thus, it can be seen that some independent variables (awareness level and technology) have a positive influence on the dependent variable (M-banking performance)

whereas security and perceived risks have negative influence on the dependent variable (M-banking performance). This study had not intended to establish a causal relationship between the marketing challenges and M-banking performance but to show the strength of relationships.

VIII. CHAPTER FIVE SUMMARY OF FINDINGS, CONCLUSION AND RECOMEDATIONS

5.1 Introduction

Based on its objectives, this study provided answers to research questions in chapter one. The answers to the research questions are based on regression results and these are discussed in this chapter. In order to achieve this, the study came with four specific objectives: to establish impact of technological innovation on performance of M-banking in South Rift region; to determine how user-security concerns affect performance of M-banking in South Rift region; to establish the effect of customer perceived risks on the performance of M-banking in South Rift region and to determine the effect sensitization on the performance of M-banking in South Rift region. This chapter highlights the summary of the findings, conclusions and recommendations on the same. To conclude, the chapter gives suggestions for further studies.

5.2 Summary of findings

Using a simple linear regression model of the form $Y = \beta_0 + \beta_1 C_1 + \beta_2 C_2 + \beta_3 C_3 + \beta_4 C_4 + e$ where Y = M-banking Performance, C_1 = Security, C_2 = Perceived risks, C_3 = Awareness level, C_4 = Technology and e = Error term, the study looked at marketing factors influencing the performance of mobile banking of equity bank in the south rift region. Table 4.10 presented the correlation between the variables under study. Two independent variables awareness level and technology correlated positively with M-banking performance (the dependent variable) while security and perceived risks negatively although at varying degrees. The reason is that as the perception of risks and security of M-banking by customers increases, performance goes down and vice versa. The independent variables are also affected by other variables. More importantly, awareness level, perceived risks and security are highly correlated with M-banking performance while technology is related albeit to a low extent. The reason is could be that technology is a constant in M-banking performance such that the latter cannot exist without the former. In addition, technology limits M-banking performance.

5.2.1 Impact of technological innovation on performance of M-banking in South Rift region

From the study findings technology had a weak positive correlation with M-banking performance at $r = .361$. The findings further revealed that perceived usefulness (technical reasons) has the highest effect on performance of mobile banking with 90% agree and 10% strongly agree responses. This was followed by perceived ease of use (usability) then mobile applications (accessibility, functionality, and convenience). On the overall, the findings concur with observations by Alter (2002), Saleh & Mashhour (2014) and Cheah et al. (2011) that technology measured by Perceived ease of use (usability), Perceived usefulness (technical reasons); attitudes towards mobile technology (Work system); mobile applications (accessibility and conveniency) (beliefs, attitude, intention and use) increases use of mobile phone banking. Human and machines or technology should work together in order to produce the desired results and if this cannot happen then the likelihood of good results will be low.

Contrary to past studies findings that technology has a high and strong correlation with mobile banking use, this study found a weak relationship although positive. Perhaps this is also due to the fact that the respondents have little control over mobile phone handset functionalities hence finding it less important compared to the other factors. Whereas m-banking brings about various benefits, banks and web content developers should understand that mobile banking use should be analyzed from a customer's eyes as noted by Siau et al. (2004). This implies that the functionality of mobile phones should be viewed from the perspective of how customers want it to appear as opposed to how mobile platform developers look at it.

5.2.2 How user-security concerns affect performance of M-banking in South Rift region

Security is correlated with the dependent variable moderately at $r = -.534$ showing that as customers security concerns increase; M-banking performance decreases and vice versa. The study findings in table 4.6 showed that personal information security (privacy) has the the greatest effect on performance of mobile banking at 77% agreed responses followed by frauds and fraud control and finally virtual community security. It appears that mobile banking users are more concerned with security of their personal information or look for privacy which might not happen entirely over the internet than fraud and virtual community security. M-banking security concern is significant factor contributing to the performance level and rate of adoption of M-banking.

The rigidity and lack of confidence by most possible users arise partly from phobia, uncertainty and heresy with regards to technological innovations (security and perceived risks) reduces use of mobile phone banking (Porteous, 2006; Tiwari, Buse; & Herstatt, 2006; Laukkanen & Kiviniemi 2010). Security and privacy implications for all stakeholders should be a prerequisite for sanctioning M-banking in Equity especially South rift region if

5.2.3 The effect of customer perceived risks on the performance of M-banking in South Rift region

Perceived risks is correlated with M-banking performance strongly at $r = -.696$ revealing that among the marketing challenges affecting M-banking performance, perceived risks ranks high. Study findings revealed that time and convenience ranked high among customer perceived risks factors that affect performance of mobile banking at 97% agree responses followed by guaranteed authentication and non-repudiation (knowledge of parties in a transaction) then performance risks. The implication is that time and convenience has the greatest influence on M-banking performance among customer perceived risks followed by guaranteed authentication and non-repudiation. This shows that customers of Equity bank will only use M-banking if it saves on time and it is convenient.

The findings concur with Laukkanen & Kiviniemi (2010) who observed that present and potential users technology develop inner feeling and particularly, various independent risks which make them develop cold feet towards maximizing the use of such innovations as mobile banking, in turn affects the performance of the channel. In essence, a huge number of consumers and potential users of technological innovations have idiosyncratic anticipation of loss; the more certain they perceive the subjective outlooks of loss the more they anticipate risks. Risk barriers accompanied by information and guidance offered by a bank, has the most significant effect on decreasing the usage barrier.

5.2.4 The effect sensitization on the performance of M-banking in South Rift region

Awareness level as an indicator of customer sensitization has a very strong relationship with M-banking performance at $r = .734$. This shows that creating awareness is the most important factor that affects M-banking performance at Equity bank South rift region. Study findings showed that on the overall and in comparison with the other variables i.e. technology, perceived risks and user security concerns, sensitization or awareness of M-banking is the most important marketing factor influencing the performance of mobile banking of Equity bank in South rift region. As awareness level increase to counter such things as lack of interest/customer apathy; customer behaviour (preference for traditional modes of banking); perceived high charges or hidden costs and lack of information on M-banking, mobile phone technology banking goes up (Al-Jabri, 2012, Pikkarainen et al., 2004, Cheah et al. (2011).

Customers purchase decisions including technology adoption starts with information search and this is where awareness creation or sensitization on M-banking performance comes in handy.

5.3 Conclusions.

This study successfully identified the marketing factors influencing the performance of mobile banking of Equity bank south rift region. The findings of this study revealed that technology, security, perceived risk and awareness level are the marketing factors affecting the behavioral intention of mobile users to adopt mobile banking services in Equity bank south rift region. The study findings further show that the dependent variable i.e. M-banking performance is influenced by the independent variables to a large extent although technology has a weak positive relationship with the dependent variable. In addition, all the independent variables were significantly correlated with M-banking performance i.e. $p < 0.05$ showing that they are important marketing factors affecting M-banking performance of Equity bank in South rift region. The consistency of regression coefficients on the four marketing challenges suggests that these variables are important factors influencing M-banking performance in South rift region with awareness level and technology influencing M-banking performance positively while user security concerns and customer perceived risks negatively. Awareness creation is the most important function of marketing communication through integration of the marketing communication tools; advertisement, salesmanship and so on. Marketing communications is a crucial factor in the process of creating a trust among the customers and potential market for any organization. In addition, awareness creating helps to reduce negative customer perceptions on challenges such as risks, barriers, loss of information and others.

The most influencing marketing factor is awareness level on the positive side and perceived risks on the negative side. This shows that awareness level has a huge positive impact on the usage of mobile banking while perceived risk has a huge negative influence on the usage of mobile banking in Equity bank's South rift region. In addition, the fitted regression model on the basis of statistical finding through SPSS (table 4.15) was as follows: a partial change in the usage of mobile banking due to one unit change in perceived risk factor is -0.755 while other things remain constant and it is statistically significant at 5% level of significance. Thus it can be said that risks involved in using mobile banking make people reluctant to use such tool for banking. Moreover, a partial change in the usage of mobile banking due to one unit change in security factor is -0.632 while other things remain constant and it is statistically significant at 5% level of significance. Thus it can be said that security involved in using mobile banking make people reluctant to use such tool for banking. In addition, a partial change in the usage of mobile banking due to one unit change in awareness level factor is 0.879 while other things remain constant and it is statistically significant at 5% level of significance. Thus it can be said that increased awareness level make people more inclined to use M-banking than if awareness level low

or absent. Lastly, a partial change in the usage of mobile banking due to one unit change in technology factor is 0.568 while other things remain constant and it is statistically significant at 5% level of significance. Thus it can be said that technology make people more inclined to use M-banking albeit to a low level compared to awareness level.

From the study it can be concluded that, mobile banking service adoption rate is low in Equity bank South rift region with between 30-50% of customers believed to access Bank through mobile phones. However, when it comes to all the factors that can influence the adoption and usage of mobile banking services, majority of the respondents included in the study attested to the findings that all the factors as reviewed from the analysis awareness level, security, perceived risks and technology affect mobile banking service usage at varying degrees.

5.4 Recommendations

This research has provided valuable knowledge and information to banks, service developers, and software engineers to enhance consumers' intention to use mobile banking services in future through raising awareness level, come up with user friendly technologies, reduce security and perceived risk issues. On the overall, Mobile banking service providers need to continuously strive to simplify the mobile banking application used for transactions. The results showed that only 30% to 50% of customers who own a bank account use of mobile banking at Equity bank. This shows that up to 70% are not enjoying such facilities even though they have an interest to use it in the future. This is a great marketing opportunity for the banks and businesses to reach more people with a broad range of financial services. Thus it calls for a good understanding of behavioural pattern of target markets. This study can be used by Equity bank to realize the benefits that could be derived if the innovation is managed well as well as taking drastic steps to address the issues militating against its growth. Equity bank need to increase and improve the level of awareness, as employees in South rift region said they that customers feel they had not been persuaded individually by the banks officials to use M-banking. The bank needs to build the confidence of their customers which will lead to more patronage.

5.5 Suggested Areas for further Research

This study would have provided better applications if it were not limited within South rift region and in Equity bank. Including all the banks in the study may provide better results.

The effect of demographic variables such as race, age, gender and culture on the usages of mobile banking was not intensively explored. Some demographic variables have interrelations which might have influence on the usages of mobile banking as Lee (2009) stated that the cognitive propensity of individuals to risk differs across culture. This means that the customers' acceptance of mobile banking may be influenced by cultural differences. Including people of different age groups both from town and villages may provide better results. Nevertheless, the risk and trust factors demand for more intensive analysis to spread mobile banking throughout the country.

Thus, future studies should include factors such as cultural orientation and age of the user of banking service since they might have important influence on the use of mobile banking which is not incorporated in this study. Cross tabulation between demographics and mobile banking use would give better results.

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Appendix One: Introductory Letter

YEGON PETER KIPLANGAT
P.O. BOX
KERICHO

TO WHOM IT MAY CONCERN

RE: INTRODUCTORY LETTER

I am a student at Jomo Kenyatta university of Agriculture and technology (JKUAT) Mombasa CBD campus and currently preparing a proposal in partial fulfillment of the requirement for the award of the degree of Masters of Science in Entrepreneurship, on **MARKETING CHALLENGES INFLUENCING THE PERFORMANCE OF MOBILE BANKING: A SURVEY OF EQUITY BANK SOUTH RIFT REGION**. Your assistance in providing the information I am seeking will be highly appreciated and treated with confidentiality. It will purely be used for the purpose of this research.

Your cooperation will be highly appreciated.

Yours faithfully,

Yegon Peter Kiplangat

(Researcher)

Appendix Two: Questionnaire

I am a conducting a research on **Marketing Challenges Affecting performance of Mobile banking (M-banking)**. This study is for academic purposes only. I request that you take a few minutes to participate on by filling in the questionnaire. The information that will be provided through filling this questionnaire is of paramount importance to this study and shall be treated with confidentiality.

SECTION A: DEMOGRAPHICS

1. What is your gender? Male () Female ()
2. What is your education level? Graduate () Undergraduate () Diploma () Others ()
3. How old are you?
18-25 () 25-35 () 35-45 () 45-55 () Over 55 ()
4. Which department are you attached to?
Credit () ABC () Accounts Opening () Customer Service () Banc assurance () other ()
5. Years of experience in industry
 - a. 0 – 5
 - b. 6 – 10
 - c. 11 – 20
 - d. 20 and above
6. Years of service at the Bank
 - a. 0 – 5
 - b. 6 – 10
 - c. 11 – 20
 - d. 20 and above

SECTION B: MOBILE BANKING USER PERFORMANCE

7. How familiar are you with mobile banking services?
Not familiar () somewhat familiar () Familiar () Very familiar ()
8. What percentage of your customers who have bank accounts use mobile banking?
 - a. Less than 10% []
 - b. Between 10% - 29% []
 - c. Between 30% - 50% []
 - d. Between 51% - 80% []
 - e. Over 80% []
9. Which of the below uses is more prominent to subscribers or users of mobile banking at your bank? 1=Not at all; 2=Sometimes 3=Only when required 4= Frequently 5= All the time

	U	s	e	1	2	3	4	5
1	P	a	y	b	i	l	l	s
2	T	r	a	n	s	f	e	r
3	View transactions history							
4	C	h	e	c	k	b	a	l
5	M	a	k	e	a	n	d	c
6	V	i	e	w	i	n	v	e
7	L	o	c	a	t	e	b	r
8	P	a	y	c	r	e	d	i

Others (please specify).....

MARKETING CHALLENGES INFLUENCING THE PERFORMANCE OF MOBILE BANKING IN EQUITY BANK

10. On a scale of 1-5 where 1= Strongly disagree, 2=Disagree, 3=Neither agree nor disagree, 4=Agree and 5=Strongly agree, indicate your level of acceptance with the following activities that generate value to customers

	Value Generated Towards Customer	1	2	3	4	5
1	Timely delivery of services/data transaction rate					
2	Mobile security/privacy of information					
3	Transaction costs					
4	Reliability					
5	High standards of customer service					
6	After sales services					
7	Pro mot e s s					
8	Mobile applications (accessibility, functionality, and convenience)					
9	Deliver value at low cost					
10	Usability					
11	Technicality and compatibility					
12	Risks in mobile banking					
13	Increase awareness of need for mobile banking					
14	Match customer needs to products and services					
15						

11. Please indicate your level of acceptance with the following statements relating to marketing challenges and mobile banking performance on a scale of 1-5 where 1=strongly disagree, 2=Disagree, 3=Neither agree nor disagree, 4=Agree and 5=Strongly agree

	S	t	a	t	e	m	e	n	t	1	2	3	4	5
T e c h n o l o g y														
1	Perceived ease of use (usability) has affected performance of mobile banking													
2	Perceived usefulness (technical reasons) has affected performance of mobile banking													
3	Mobile applications (accessibility, functionality, and convenience) has affected performance of mobile banking													
S e c u r i t y														
4	Personal information security (privacy) has affected performance of mobile banking													
5	Virtual community security has affected performance of mobile banking													
6	Frauds and fraud control has affected mobile banking performance													
P e r c e i v e d R i s k														
7	Guaranteed authentication and non-repudiation (knowledge of parties in a transaction) affects performance of mobile banking													
8	Time and convenience affects performance of mobile banking													
9	Performance risks has affected performance of mobile banking													
A w a r e n e s s l e v e l														
10	Lack of interest or customer/user apathy has affected performance of mobile banking													
11	Customer behaviour (preference for traditional modes of banking) has affected performance of mobile banking													
12	Perceived high charges or hidden transaction costs has affected performance of mobile banking													

12. On a scale of 1-5 where 1= Strongly disagree, 2=Disagree, 3=Neither agree nor disagree, 4=Agree and 5=Strongly agree, indicate your level of acceptance with the following statements relating to mobile banking performance

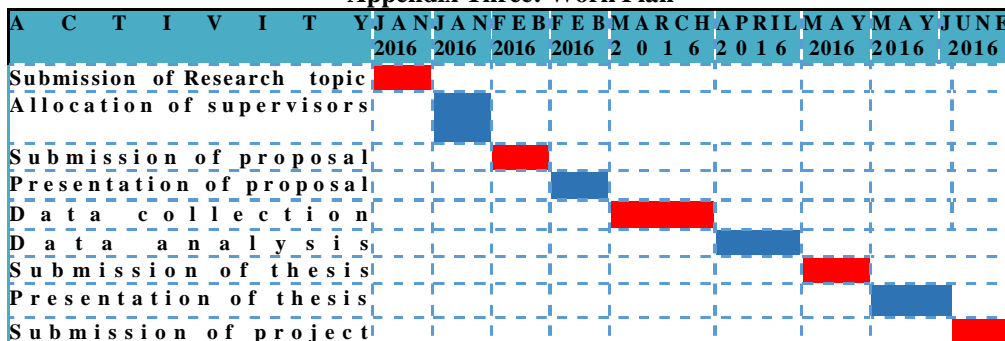
S	t	a	t	e	m	e	n	t	1	2	3	4	5
Bank has an elaborate system to eliminate concerns for mobile banking security													
Bank has ensured that mobile banking technology is understood by customers													
Bank strives to reduce the level of perceived Risks among customers/users													
Bank has strategies in place to raise awareness about M-banking													

13. What tangible benefits do you hope to achieve through continuous use of mobile banking?

- a. Improved customer experience
- b. Increased sales
- c. Higher quality products and services
- d. New product innovations
- e. More efficient operations
- f. Better, fact-based decision making
- g. Increased customer numbers/accounts

Thanks

Appendix Three: Work Plan



Appendix Four: Budget

A C T I V I T Y	A	M	O	U	N	T
S t a t i o n e r y	1	0	,	0	0	0
T r a n s p o r t	1	5	,	0	0	0
A i r t i m e	5		0		0	0
M e a l s a n d R e f r e s h m e n t s	3		0		0	0
P r i n t i n g	2	0	,	0	0	0
B i n d i n g	1	0	,	0	0	0
T O T A L	6	3	,	0	0	0