EFFECT OF AUTOMATION OF BANK SERVICES ON CUSTOMERS’ SATISFACTION AT EQUITY BANK, UASIN GISHU COUNTY, KENYA

BY

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A RESEARCH PROJECT SUBMITTED TO THE SCHOOL OF POSTGRADUATE STUDIES IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER DEGREE IN BUSINESS ADMINISTRATION OF THE SCHOOL OF BUSINESS AND ECONOMICS, DEPARTMENT OF BUSINESS ADMINISTRATION, KISII UNIVERSITY

November 2016
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DEDICATION

This research project is dedicated to my son Iran Junior, for his encouragement in my studies. May the Almighty God bless him abundantly in his all undertakings.
ACKNOWLEDGEMENT

I am thankful to the entire Kisii University’s Administration and Management for offering me admission and opportunity to achieve my dreams in studying. My greatest thanks go to faculty of commerce and to my supervisors Dr. Phyllis Osodo and Dr. Yusuf Kibet for their endless effort and support made by them on the whole process of my study. I am grateful to my Late Father James Ombok for his effort and support financially, emotionally and with any other resource during the whole process. God’s blessings to all.
ABSTRACT

In today’s modern world, the banking sector plays a great role in the growth and expansion of the world’s economy in terms of its goods and services. Automated banking being one of the key services employed by banks facilitates the delivery of services in regard to consumers’ expectations thus boosts the country’s economy. Major technological advancement has been witnessed in the banking industry due to the introduction of international standards in the banking operational norms geared towards the betterment of client service quality. The adoption of new technology which include the Automated Teller Machine usage, Internet banking usage, Mobile banking usage among many other services are evidence of how faster the industry is growing. In this regard the current research sought to assess the effects of automation of banking services on customer satisfaction a case of Equity bank branch in Uasin Gishu County. The study was guided by the following specific objectives; to determine the effect of Automated Teller Machine usage on customers’ satisfaction, to determine the effect of mobile banking usage on customers’ satisfaction and to establish the effect of internet banking usage on customers’ satisfaction. The study adopted the SERVQUAL (service quality) model because service industry is concerned with service quality and customer satisfaction and this model provides a better diagnosis of service quality. The study adopted a case study research design. Data was collected through the use of Questionnaires. The total reliability of the questionnaire was a Cronbach’s alpha coefficient of 0.816. The target population for the study was 1614 respondents with a sample frame of the Branch manager, sales employees from the Sales section and bank customers and bank agents. The study adopted both Stratified random and purposive sampling technique to identify the 3 key informants. The sample size was 381 respondents. Data was analysed using descriptive and inferential statistics using Statistical Package of Social Sciences (SPSS) Version 20. Findings were presented in the form of tabulations (percentages, mean and standard deviation). From the findings, Automation of banking services dimension such as; Automated Teller Machine usage, mobile banking usage and internet banking usage were found to have a statistically significant (p<0.05) effect on customer satisfaction. All these constructs were found to contribute 89.4% to customer satisfaction. The study therefore recommends that the Equity bank should pay more attention to reliability, responsiveness and customer assurance on automated banking services in order to secure maximum customer satisfaction. For a more comprehensive understanding of this theme the study recommends that a similar study be conducted in other banks besides assessing the effects of moderating effect of marketing strategies on the relationship between automation of banking services and customer satisfaction.
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LISTS OF ABBREVIATIONS

SERVQUAL: Service Quality
ATM: Automated Teller Machine
SERVPERF: Service Performance
SPSS: Statistical Package for Social Science
CBD: Central Business District
SMS: Short Message Service
INFODEV: Information Development
ATM: Automated teller machine
EFT: Electronic funds transfer
EDI: Electronic Data Interchange
EDP: Electronic Data Processing
E-Banking: Electronic Banking
POS: Point of Sale
IT: Information Technology:
CPU: Central Processing Unit
M-Banking: Mobile Banking
CS: Customer Satisfaction
CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

World globalization together with technology advancements is potentially confronting the financial sector, primarily the banks. This is due to serious competition among the firms which is coupled with shift in customers change in demand for services that has driven the banking industry to further challenges. The global economic challenges such as issues of a diminishing margin are a concern for all banks globally. Banks worldwide are striving to decrease costs and increase margins so as to sustain in this competitive environment. Automation, today, persist a critical channel for selling virtually all the bank services (Isuri, 2009).

According to Auta (2010), information technology (IT) is turning to be one of the most vital factors in the future development of banking, which influences banks’ marketing and business strategies. The Banking service industry has grown faster due to technological advancement which has seen the adoption and use of automation devices such as Automated Teller Machine, on-line banking, Telephone banking, Mobile banking and other electronic money transfer methods. The growth has resulted from the development in the technological arena, which could not have been possible. Besides, it will change our lifestyle in coming years.

During the last two decades the financial sector has developed rapidly in terms of size, industry structure and the variety of consumer and business-to-business products and services (Edey, 2012). Studying the Australian financial sector, Edey and Gray, (2012) reported that the Australian financial sector has been transformed from a relatively closed system in the 1950s and 1960s based on traditional bank activities to a more open, effective and competitive system which is able to offer a wide range of products and services. Technological developments and financial liberalization (deregulation) were viewed as the main forces influencing the financial performance the country. This encouraged a lot of research in the banking sector as many investors were interested in efficient service delivery thus they were more concerned with better ways of customer service delivery.
According to (Kumbhar, 2011) Banks have provided services such as financial statements through various delivery channels were also evidenced to be other propellers of satisfaction. Their study gave suggestions towards ways of achieving customer expectations and satisfying them based on delivery channels of services factors were not the same. For instance they confirmed that for customers who trade heavily and have high investable assets, automated internet services had higher drivers of satisfaction than the others. However, a similar argument can be advanced in connection with the Asian countries where banking sector For example, in India the industry has increasingly experienced a tight competition among the banks in past years that has necessitated some banks to search for better, modern and efficient ways of offering services to their customers.

The government of India, for instance in 2010 adopted liberalization policies which encouraged its banks and international banks to better activities in their domain in India. Due to reach the latest modern available forms of delivery channels (Mobile banking usage and the Automated Teller Machine usage etc). Consequently, the sector focused on improving customer loyalty, retention and ensuring that they are satisfied by offering improved service quality that was aimed at eliminating other obstacles issues that include bank frauds. With this trend, consumers’ awareness and knowledge has been improved through the adoption of automated banking services by gradually improving access to Computers and Internet services, (Kambiz and Sadeghi 2010).

In African, the continent has seriously been faced by the waves of technological advancement and the use and adoption of modern technology as customers demand for quality products and services has improved due increased levels of education and shift in the customers’ preference and taste. As a result of these changes, various African countries have enacted a number of laws that allows and encourages the adoption of technology as a way of enhancing performance .The banking sector in this regards has not been left out since banks have improved their operation efficiently through the application of technology such as the automation of the banks services which has really enabled the banks to offer quality services that meets the customers’ needs. The use of technology in African banks was evidenced in the countries explained below. (Abdul,2011)

In Ghana for instance, automation adoption has increased and improved its usage in most banks in Ghana and has transformed and offered better ways how banks would attend to
its clients in a more convenient way and as a result increases service quality hence customers’ satisfaction while the latest revolutionary electronic automation in Ghana and world over has seen the usage of automation services increased (Joshua, 2010).

In Nigeria, the country has embraced the usage of automation services in their banks which has resulted to improved e-Commerce and e-Payment services with overall reduction in the amount of currency in circulation (Chiemeke, Evwiekpaefe and Chete, 2010; Ayo, Adebiyi, Fatudimu and Ekong, 2011; Aderonke and Charles, 2010). The situation is either not different in Mauritius, that the two banks; Mauritius Commercial Bank and the State Bank of Mauritius improved their customers’ satisfaction with the adoption of automation devises. (Padachi, Rojid and Seetanah, 2010).

In the Kenyan case, automation of bank services has seen the usage of Automated Teller Machine, mobile banking and Internet banking increased. Adoption has resulted to better personnel utilization and organizations assets, increased in service quality that improves service charge in the banking services by the general population. Through the Government of Kenya, the parliament have also enacted a good number of legislations that have really supported automation adoption and further development of the banking industry by either waiving taxes or other non monetary incentive to banks that embrace technological advancement through research. This has also enabled many investors to join the banking sector as the Government provided a conducive business environment (Mwania and Muganda, 2011).

Ndung’u (2011), concurs of the existence of money transfer services in Kenya; four mobile phone operators are in place with 15.4 million customers and over 39,449 agents. Total transactions in 2010 averaged Ksh.2.45 billion a day and Ksh.76 billion a month resulting to low payment of transaction and increased accessibility to financial services. This depicts a very productive market for electronic money transfer that could encourage banks to invest more in this new technology such as automation of their services that guarantees their customers’ service delivery and satisfaction.

Analysis of firms with successful system automation shows that effective automation approach provides visibility of the health of application and other resources, control of application systems and reactions to changes that facilitates business survival. There has been neglect on the effect of automation of bank services on customers’ satisfaction in
literature that requires to be checked into with great concern. It is necessary for firms investing in automation technology to have knowledge about its contributions towards customers’ satisfaction. In the end, firms cannot keep investing in a technology without knowing its returns on investment (Abuga, 2013).

According to Michel Adar (2010) replacing people with machines makes it possible to tremendously increase the capacity of a process, which has obvious economic advantages. This allows business continuity and better progress. For example, automated process is much more uniform in processing of units of a given task. Therefore the current research objective is to establish how automation of bank services affects customers’ satisfaction at Equity bank main branch in Eldoret, Uasin Gishu County.

1.2 Statement of the Problem
The Kenyan banking system has undergone remarkable changes in competition and higher expectation of customers. For the commercial banks to compete fairly in the market there is a need for the banks to develop and adopt new products and technology which are essential for customer satisfaction. Banking system performs a key role in the economy. (Gichungu 2015).

A study conducted by Salman and Sardar (2010) identified various issues such as security, privacy, late access to the account, distrust factors, awareness, government policies and different banks infrastructure as hindrance in adopting automation. Bank automation depends on the technology other than the product and bank which is providing it and that technology use is highly influenced by the customer awareness about technology and its use. As customers are not much aware of the technology they avoid the use of technology and associate it with risk, security and cost. These conditions emphasize the necessity for customer awareness, high quality performance and effective service delivery in the banking industry (Aurelio & Simonetta, 2013).

Kremer & Wamae (2010) found out that in an optimal bank/firm relationship, both the bank and the firm receive large economic benefits. They also insisted that many financial institutions have embraced the adoption and application of automation system practices in turn to improve their performance and customer satisfaction. However, there are problems that occur as a result of the poor system implementation that lead to its failure and it’s on these basis, that this study sought to assess the effect of dimensions of automated services
such as internet banking usage, Automated Teller Machine usage and mobile banking usage (Sangeetha 2012) on customers satisfaction at Equity Bank in Uasin Gishu County.

1.3 Purpose of the Study
The purpose of the study was to assess the effect of automation of bank services on customers’ satisfaction at equity bank branch, Oginga Odinga Street in Uasin Gishu County.

1.4 Objectives of the study
The study was guided by the following objectives:

i. To determine the effect of Automated Teller Machine usage on customers’ satisfaction at equity bank branch, Oginga Odinga Street in Uasin Gishu County.

ii. To find out the effect of mobile banking usage on customers satisfaction at equity bank branch Oginga Odinga Street in Uasin Gishu County.

iii. To establish the effect of internet banking usage on customers satisfaction at equity bank branch Oginga Odinga Street in Uasin Gishu County.

1.5 Research Hypothesis
The study was steered by the following research hypothesis:

H01 There is no significant effect of Automated Teller Machine usage on customers’ satisfaction at equity bank branch, Oginga Odinga Street in Uasin Gishu County.

H02 There is no significant effect of mobile banking usage customers’ satisfaction at equity bank branch, Oginga Odinga Street in Uasin Gishu County.

H03 There is no significant effect of internet banking usage on customers’ satisfaction at equity bank branch, Oginga Odinga Street in Uasin Gishu County.

1.6 Assumptions of the Study
The study assumed that the respondents were able to give accurate information required by the study. The study also assumed that the results would be replicated if a similar study was conducted in other organizations. Lastly the respondents were able to read and interpret the questions in the data collection instruments accurately.
1.7 Significance of the study
As a result of the increased advancement in Information Technology (IT), banks have begun to rely on carrying out their banking transactions electronically. The study would encourage Equity bank policy makers and financial institutions to consider fully automating their services as a strategic decision. The study would contribute greatly to other existing literature on the automated services’ application in business by other organizations.

This study is of help to the government of Kenya as it seeks to leverage on technology to grow the financial services sector and enhance customers’ satisfaction. One of the key drivers of change in Kenya is information technology and innovations. Through the findings of the study, the government of Kenya is able to appreciate which areas of automation to support the banking sector by either waiving taxes or other non monetary incentives.

To the scholars, the study can be value-adding to the existing body of knowledge as it recommends ways for improvement of customers’ satisfaction by leveraging on the use of technology. Nevertheless, this study serves as a stepping stone for newer research on automation of bank services.

1.8 Scope of the Study
The dependent variable was customer’s satisfaction and the independent variables were dimensions automation of services.

The study was confined to Equity Bank branch situated along Oginga Odinga in Uasin Gishu County especially the bank manager, tellers, bank customers and sales personnel the bank. The study involved Sales Team Supervisor, Customer Care Manager, and Sales Manager, bank agents, bank customers and Sales representatives from Equity Bank Branch located along Oginga Odinga in Uasin Gishu County.

The study was conducted on a sample size of 381 employees and customers of Equity Bank Employees and 3 key informant interviews guides were administered to three key persons purposively identified based on their involvement in the bank service automation, management and administration. The study was carried out between May 2016 and July 2016 through use of questionnaires with open and close ended questions and Key informant interview guide were prepared and used for gathering data.
1.9 Limitations to the Study
Some respondents could not understand some questionnaires’ items in this regard the researcher ensured that the respondents got a clarification of the items in the questionnaire from research assistants. Some respondents were adamant to reveal the truth for fearing that the findings could victimize them for giving out sensitive information regarding their bank.

The researcher assured the respondents of anonymity and also told them that the purpose of the research was purely for academics. Some respondents were reluctant to return the questionnaire; the researcher mitigated this by making continuous follow up to increase the response rate.

1.10 Operational definition of terms
Automated teller machine (ATM): It’s a computerized machine that permits bank clients who opts to gain access to their accounts with a magnetically encoded plastic card and a code number to transact business with the bank. It enables the bank customers to carry out their transactions without the assistance of a teller; these include pay bills, make deposits, withdraw cash, and obtain bank statements, effect cash transfers.

Automation: It is the use of machines, control systems and information technologies to optimize productivity in the delivery of services.

Customer satisfaction: It’s the degree of satisfaction provided by the goods or services of a company as measured by the number of repeat customers.

Service gap: An unmet customers expectations or a group of potential consumers who are not yet purchasing a service. Gaps in the market represent opportunities for companies to expand their customer base by increasing awareness and creating targeted offers or advertising campaigns to reach the untapped market.

The point of sale or point of purchase (POP): is the time and place where a retail transaction is completed. Internet banking: It refers to a system of electronic payment used by the customers enabling them conduct bank
transactions through websites operated by the bank, such as a retail bank, virtual bank, credit union or building society.

**Telephone Banking:** is an automated service which enables customer’s access their account information and perform normal transactions from a touch-tone telephone.

**Electronic Banking (E-Banking):** This is a web based service that enables a banks customer to access his/her account.

**Information Technology:** This represents the various types of hardware, data base management, telecommunication and other information processing technologies used in a computer based information system. The customer presents an encoded debit card to the store clerk who inserts it into a computer terminal connected to the financial firm’s computer system. The customer’s account is charged for the purchase and funds are automatically transferred to the stores deposit account.

**Electronic Data Interchange (EDI):** this is the transfer of financial or business information or document between originations in machines readable form Customer value: A customer’s perceived preference for, and evaluation of, those product attributes, attribute performances, and consequences arising from use that facilitates (or blocks) achieving the customer’s goals and purposes in use situations (Woodruff, 2011).

**Epistemology:** Can be defined in a broad sense as the study of knowledge

**Ontological Assumptions:** Ontology refers to assumptions held about the nature of social reality that is, whether reality is objective and external to the individual, or whether it is subjective and cognitively constructed on an individual basis

**Reliability:** involves consistency of performance and dependability. It means that the firm performs the service right the first time. It also means that the
firm honours its promises. Specifically it involves: accuracy in billing, keeping records correctly and performing the service at designated time.

**Responsiveness:** concerns the willingness or readiness of employees to provide service. It involves timeliness of service: mailing a transaction slip immediately, calling the customers back quickly and giving prompt service.

**Security:** is the freedom from danger, risk or doubt. It involves: physical safety, financial security and confidentiality.
CHAPTER TWO
LITERATURE REVIEW

2.1 Theoretical Framework

A theory is a reasoned statement, which is backed by facts that are intended to describe a phenomenon. Theories used present a generalized explanation to an occurrence. The theory reviewed and which inform the study is SERVQUAL model (Parasuraman, 1985) reviewed (Kumar, 2009).

The study focused on automated service quality dimensions which included tangibility, empathy, assurance, reliability and responsiveness on satisfaction of customer. Therefore, the SERVQUAL model in particular are all phenomena in reality implying the theories are based on observations perceived through a person’s senses.(Brandon & Silvestro, 2010).

2.1.1 The SERVQUAL Model

This Model had been recommended for this research and of which its features have been adopted as a framework. According to Kumar et al.(2009), intense competition among the financial institutions together with the hostile nature of the external environmental factors, service quality has effectively served as a cornerstone in enhancing efficient marketing strategies for companies.

This highlights the benefits of having improved service quality in an organizational set up that helps in their survival and ensures growth since it helps them to tackle these challenges they face in the competitive markets. This applies that all service-based companies have no option but to be compelled to provide quality services that meets their customers’ needs in order to have a sustainable competitive advantage. There is however, a need for these organisations to understand fully what service quality is all about in order to be able attain their objectives. (Zeithaml, Bitner & Gremler, 2012).

From service marketing literature perspective, a service quality is basically described as the overall customer assessment of a service, (Eshghi et al.,2009) or that extent in which the customer’s needs and expectations are meant by the service , another definition done by Parasuraman et al.,(1985) stated that its “The discrepancy between consumers’
perceptions of services offered by a particular firm and their expectations about firms offering such services”.

He went ahead and said that the consumer judgment for quality is perceived to meet the expectations when high quality services are offered and the same is said to be below expectations when the consumer sees the services to be of low quality.

**Figure 1. 1: SERVQUAL Model and the relationship between Quality of Service Delivery and Customer Satisfaction**

![SERVQUAL Model Diagram](image)

Source: (Kumar et al, 2009)

**2.1.2 SERVQUAL Model concept**

The model focused on service quality dimensions mainly on the human aspects of service delivery like responsiveness, reliability, assurance, and empathy and the tangibles of service. Service tangibility is discussed as that scale which measures the customer views’ depends on the services of a service provider based on the quality of its most visible attributes (Eshghi et al., 2009).

Service reliability is defined as the capacity of the service provider to work towards fulfilling the agreed service accurately and dependably. Responsiveness is defined as the
expression of the willingness to help customers by providing prompt service. Besides that, quality assurance is the courtesy and knowledge of personnel and their ability to inspire, trust and deliver confidence to the esteemed customers. (Seth, 2016)

Empathy quality is being friendly and capable of giving individual undivided attention that the company can provide to the customers. Service quality is an imperative tool for a firm’s efforts to distinguish itself from its opponents. The merits that a service quality generates to companies is emphasized here especially its contributions to organizational competitive advantage that endeavours its expansion and hence bring customer satisfaction (Rouse, 2008). According to Eshghi et al (2008), a clear definition of service quality has been given an assessment by the customer, both practitioners and academicians thus according more attention to service quality.

Ghylin et al., (2008) states that, companies are expected to provide services of high quality level by defining service quality, thus knowing the customers’ needs and preference that increases their satisfaction. Understanding service quality starts by acknowledging important characteristics of a service which includes heterogeneity, intangibility and inseparability. Quality of a service would be easily measured as customer’s expectation provides the bases for assessment of quality of services, as when expectation is exceeding with performance, quality is always high and quality is known to be low when performance unable to reach customers expectations. This means that for a better knowledge of the attitudes of the consumers will aid in knowing how they perceive quality of service in banks. (Chingang, 2010).

A suggestion was made by Negi (2011) where he ascertained that the customers’ perception and expectations about a service quality are influenced by specific contribution to the competitiveness of a business and development of a more attractive that gives the customer value for the money. This makes service quality a very important construct to understand by firms as this enables them to measure it and by making vital improvements in its dimensions where appropriate more so in areas where bigger gaps are seen to exist between what the management think in respect to the customer expectations and their perceptions.

In reference to financial institutions, this study is not only interested in learning more about issues that influences service quality perceived by customers and how quality of
service is measured but it’s also interested in giving a grant direction for improvement of quality of service to bring customer satisfaction efforts into a reality. This means customer’s expectation with regards to consumers’ service quality should be well understood and banks that offer the services. This therefore calls for a thorough knowledge of the customers’ needs and expectations as far as their quest for services are concerned. In order to give a clear definition and knowledge about service quality, many researchers have employed some relevant models so as to gain thorough knowledge that enables them to match them with the customers’ hope and needs (Mohamoud, 2015).

2.1.3 Assumptions of the Model
2.1.3.1 Ontological Assumptions

It’s the assumption about the nature of social reality which states that, whether a reality is considered objective and external to the individual or whether it is subjective and cognitively constructed on an individual basis since it involves what exists in the world. These positions are referred to as objectivism and constructivism respectively. Objectivism is an ontological position which states that, social phenomena confront us as external facts that are beyond our reach or influence. This means that social phenomena and the categories that we use in everyday discourse have an existence that is independent or separate from actors. (Long et al., 2000).

Constructivism is an alternative ontological which advocates that a social phenomena and its meaning are normally accompanied by social actors. Realities are constructed by the social actors. Categories that people employ in helping them understand the world are considered social products, in which are meanings are constructed in and through interaction (Bryman & Bell, 2007).

In relation to this study, one believes that there is a reality that can be apprehended or perceived; the needs for customer satisfaction with the service quality do exist out there and are external to the consumers that perceive these realities. This tilts the study towards an objectivist way of looking at social phenomena. It is a clear fact that companies strive hard to improve service quality guarantees customer satisfaction. The researcher is convinced that customer satisfaction is definitely an imminent effect of good service quality. These realities about service quality on customer satisfaction are captured out
there by trying to find out how consumers perceive service quality versus their expectations thus resulting to customer satisfaction.

2.1.3.2 Epistemological Assumptions

Epistemology can be defined in a broad sense as the study of knowledge. In the extremes, knowledge can be viewed as objective and theoretically accessible to all, or else subjective and dependent on individual experience. The conflicting issue with epistemology is whether or not the social world should be studied according to the same principles, procedures and ethos as the natural science. Positivism advocates the application of the methods of natural science to the study of social reality and beyond. Positivism can entail the following principles (Bryman & Bell, 2007).

The principle of phenomenalism which states that only phenomena and hence knowledge confirmed by the senses can genuinely be warranted as knowledge. The principle of deductivism which states that the purpose of theory is to generate hypotheses that can be tested and that will thereby allow explanations of laws to be assessed. The principle of inductivism which states, knowledge is arrived at through the gathering of facts that provide the basis for laws.

Objective, that is, science must be conducted in a way that is value free. There is a clear distinction between scientific statements and normative statements and a belief that the former are true domain of scientist. In a nutshell, interpretivism is concerned with the empathic understanding of human action rather than the forces that act on it while positivism lays emphasis on the explanation and understanding of human behavior. In this study, the researcher followed a positivist view of epistemology (Bryman & Bell, 2007).

2.1.4 Criticisms of SERVQUAL Model

Notwithstanding its growing popularity and widespread application, SERVQUAL has been subjected to a number of theoretical and operational criticisms which are detailed below:

2.1.5 Theoretical criticisms

Paradigmatic objections: SERVQUAL is based on a disconfirmation paradigm rather than an attitudinal paradigm; and SERVQUAL fails to draw on established economic, statistical and psychological theory. Process orientation: SERVQUAL focuses on the
process of service delivery, not the outcomes of the service encounter. Dimensionality: SERVQUAL’s five dimensions are not universal; the number of dimensions comprising service quality is contextualized; items do not always load on to the factors which one would a priori expect; and there is a high degree of inter-correlation between the five dimensions (Reliability, assurance, tangible, empathy and responsiveness).

2.1.6 Operational criticisms

Expectations: the term expectation is polysemic meaning it has different definitions; consumers use standards other than expectations to evaluate service quality; and SERVQUAL fails to measure absolute service quality expectations. Item composition: four or five items cannot capture the variability within each service quality dimension. Moments of truth (MOT): customers’ assessments of service quality may vary from MOT to MOT. Polarity: the reversed polarity of items in the scale causes respondent error. Scale points: the seven-point Likert scale is flawed. Two administrations: two administrations of the instrument (expectations and perceptions) cause boredom and confusion. Variance extracted: the over SERVQUAL score accounts for a disappointing proportion of item variances.

2.1.7 SERVQUAL Model Relevance

Kumar et al (2009) used the SERVQUAL model in a research to determine the relative importance of critical factors in delivering service quality of banks in Malaysia. In this article they modified the SERVQUAL model and considered six dimensions; tangibility, reliability, responsiveness, assurance empathy and convenience and these consist of 26 statements. They considered convenience because it is an important determinant of satisfaction for banking customers in Malaysia and contributes very highly in the customers’ appreciation of the quality of services offered by the bank. The respondents were asked questions based on the 26 statements and they seek to know about their expectations and experience. They carried this study on banking customers regardless neither of which bank you use nor how you do your transactions, could be domestically, internationally among others. After conducting their study, they came to the realization that there were four critical factors: tangibility, reliability, convenience and competence.

The service quality variables had significant differences between expectations and perceptions with tangibility having the smallest gap and convenience has the largest gap.
The researcher ended up with the recommendation that banks need to be more competent in delivering their services and fulfilling the assurance of customers and providing the banking services more conveniently. (Phan, 2015)

SERVQUAL represents service quality as the discrepancy between a customer's expectations for a service offering and the customer's perceptions of the service received, requiring respondents to answer questions about both their expectations and their perception. The use of perceived as opposed to actual service received makes the SERVQUAL measure an attitude measure that is related to, but not the same as, satisfaction. The difference between expectations and perceptions is called the gap which is the determinant of customers’ perception of service quality (Chingang, N.D & Lukong P, B. 2010)

2.2 Automated Banking services offered in the Banking Industry

An effective banking system should be capable of taking good care of the expectations of high investors by ensuring that there is available good amount of capital for huge projects in the industrial, infrastructure and service sectors. The accessibility and bank operations have been made much easier since the introduction of information technology where automated banking services have been made successful with the usage of Automated Teller Machine, mobile banking and internet banking where consumers are able to transact business without visiting the bank premises (Salome, 2012).

The facility of Automated Teller Machine and the credit/debit cards has revolutionized the choices available to the customers of all levels. In the modern day economy people are becoming busy with their life style and find no time to make these payments by standing in queue, thus making the use of automation by the customers more commendable. With the growing Internet awareness among customers, there has been an increasing role of the banks in e-business and it would become the best option in the industry in the near future, (Mohammed, Dada, and R.M. 2014).

Customer acceptance with the new automated channels of service delivery in banks brings dramatic changes on how retail banks build and maintain customer satisfaction (Muthonia and Otieno 2014).

Esmailpour (2012) asserts that automated Banking services offered in the Banking Industry for the last two decades in the world all over have undergone radical
transformation of regulations controlling all the major activities of banks. The basic bank function is to advance customers with loans at affordable rates and ensures that it collects deposit from savers.

This can be performed through the use of mobile devices such as a mobile phone or a Personal Digital Assistant (PDA), banking activities such as: Balance checks and Account details. An Automated Teller Machine is an electronic machine card that is coded magnetically. It is fed and read by the machine very easily. The Automated Teller Machine usage is one of the commonly and generally accepted and adopted retail e-banking services by most of banks in Kenya today. Automated Teller Machine is an electronic machine that is operated by the customers themselves to deposit or to do cash withdrawals from the bank. For Automated Teller Machine usage the bank clients are required to acquire an Automated Teller Machine card from the bank (Nyangosi et al. 2010).

However according to Central Bank of Kenya, (2010) annual report, the extensive adoption, the use of mobile banking have by bigger margin overtaken the Automated Teller Machine usage in the last few years. The suggested reason for this is that it is easy for many low income employees to have an access to mobile phones as they are affordable and available in the market.

The importance of using phones is the availability mobile networks in almost everywhere in the remote village areas at affordable cost. The poor are skeptical with many financial institutions since they prefer mobile phone companies as they have trust in them and greater acquaintance with its usage. Furthermore, this therefore suggests that, automated services save the customer time and cost in performing transactions. It’s quite often that bank customers queue up in banking halls for services. With the launch of automation of bank services, the turn-around-time has been reduced drastically (Mohammed, 2014).

2.3 Concept of Customer Satisfaction
Customers are the biggest influencers in the organization operations and its imperative to measure how services offered by a company meets or exceeds the customers expectation which forms the fundamental basis of performance indicator in businesses.

In environment that are extremely competitive, especially where there is great competition for customers, the call for customer satisfaction is seen as a main differentiator and is
therefore a major element of the strategies employed by businesses. This move has been a subject of great interest to organizations that want to be a market leader in the field and researchers alike. (Barnes, 2013).

The organization main objective in business is to maximize its profits and ensures that it has a minimal operational cost. It was also noticed that Profit maximization can be achieved through increased in sales made in the organization with lesser costs. A satisfied customer contributes a lot towards the firm’s goals achievements because satisfaction leads to customer loyalty recommendation and repeat purchase Organizations have the desire to maintain their current and existing clienteles while targeting non-customers. (Wilson et al., 2008).

Spielman et al, (2008), explains that a measurement of customer fulfilment gives a clear indication of how a success organization is able to provide quality products and/or services to the general public. The customer assesses statements in relations to their needs perception and expectation of performance of the service which is being measured.

The business can evaluate its customer satisfaction index by comparing the aggregates of contended customers against those clients who are discontented in order to identify most appropriate ways and means of ensuring that all the service areas that disgruntled the customers are improved to provide better services. (Eriksson et al, 2008).

Stated that customer satisfaction is affected by a myriad of factors, which are not narrowed to resource constraints, management perceptions of consumer expectations and the firm’s service quality specifications. Murugiah (2015) justifies that customer satisfaction is influenced by the customer’s perception on service quality which depends on direction and the size of the gap that exist between the service and what the customer expect to receive when the service is offered.

On the other hand companies can also realize competitive advantage by meeting their customers’ needs. The greatest competitive advantage strategy in robust markets that companies can employ is to retaining and maintaining their customers with the intent of earning their loyalty to the organization’s services. Competitive strategies for retaining old customers’ are less expensive than those for gaining new customers (Papaioannou et al, 2006).
2.4 Empirical Literature

Empirical literature review discusses in depth theories of published work, including periodicals and books that portray experiential results that are pertinent to the topic at hand. Literature review is a comprehensive survey of previous inquiries related to a research question (Zikmund et al., 2010).

Although it can always be wider scope, covering decades, perhaps even centuries of material, it should be tailored, towards only the scholarship that is directly related to the research question. Through the use of a systematic approach to previous scholarship, literature review allows a researcher to place his or her research into an intellectual and historical context. In other words, literature review helps the author declare why their research matters (Kaifeng and Miller, 2008).

2.4.1 Quality of Service

It’s a general believe that a business that offers high quality service meets their customers’ wants while remaining economically stable and competitive in the market for a good period of time. Customer’s perception of service quality is determined by the size and direction of the gap that exists between what the customers expects to be given in a service to that of what he or she perceives to have been received from the service purchase (Jakumar, 2015).

The scope of this gap (which can be either way) is determined by four interrelated variables: the difference between actual consumer expectations and management perceptions of those expectations; between and the management perspicacity of expectations conversion of those perceptions into service quality stipulates that there ia a difference that exists between service quality specifications and service delivery and external communications to customers. These gaps poses a major hurdle in attempting to convey a service which consumers would perceive as being of high quality (Asif Khan, M. 2011).

Customers, many of whom are interested to do a purchase decision but only a small number are most likely to acquire the services that are available. Those determinant attributes defines quality of service from the consumer’s point of view. Various aspects which comprise of resource constraints, limited management perceptions of consumer
expectations and the firm’s service quality prerequisites affect service quality from the consumer’s viewpoint (Unyathanakorn, 2014).

2.4.2 Automation of Bank services and quality of Service

In modern economics, service sector plays significant role side by side manufacturing and other sectors. According to Agbor (2011), banking sector does its activities socially and economically in a country. Service personnel of such service industries are concerned about their service quality and client satisfaction which calls for the application of more efficient method of service delivery that make it possible for the clientele to meet their service expectations.

It’s for this reason that the banking sector is obliged to gain a thorough knowledge of their customers’ needs, preference and expectations. The monetary system as well as financial sector of Kenya is controlled by commercial banks. In Kenya, commercial banks provide some products and service to their clients (website of Bank Asia).

Banking services include mobile banking, SME banking, internet banking, credit card, Short Message Service (SMS) banking, foreign currency account, Automated Teller Machine services, locker service, and loan and advances. They also offer corporate banking, loan syndication, real-time online banking for corporate clients. Service charges, quality of service, perceived value and customer’s satisfaction are the main sources of success in any service factory (Akram, 2012)

2.4.3 Automation of Bank services and Service Charge

Lien and Yu-Ching, 2006, lamented that perceived price fairness influences the echelon of intangible services which has direct one on one impact on customer fulfilment in case of banks. Satisfaction of customer is the authentic expression of the status of contentment that differs from person to person and product/service to product/service and is an evaluation of how services of an institution meet the customers’ expectations or surpasses customer expectancy.

2.4.4 Automation of Bank services and Perceived Value

Customers’ psychological assessment regarding the product and service about the utility of that service compared with expectation of the consumer is often known as perceived value. Marketing researchers and managers have paid much attention to value perceptions
with the aim of generating details on customer satisfaction and allegiance. To ascertain value perception customers consider their perceived benefits relative to sacrifice (Lee et al., 2007).

Except monetary sacrifice perceived value assessment consist of social psychological perspective and non monetary costs such as transaction cost, search cost, negotiation cost, and consumption of time. The consumption of any product or service gives the customers some benefits expectation based on their advance sacrifice of resources. And experience about service quality positively and significantly persuade perceived value of a customer (Chen and Chen, 2010).

To add to this (Hutchinson et al., 2009) discussed that whenever customers get the anticipated service quality, they are satisfied. The determinants of the customers level of fulfilment as disclosed is service quality.

He further added that by ensuring good service quality; service providers can enrich customer satisfaction. Customers’ biggest concern is always cost. Price/service charge requires consideration to evaluate customers’ value perception, not generalized along with other factors. Satisfaction of customer is subjective to the price/service charge awareness according to (Kuo et al., 2009).

Value for money, price level, and special offers results in satisfaction and dissatisfaction and price fairness, price perceptibility and price processibility may that result in dissatisfaction in customers. In addition to the variety of levels of product/service price, it is worth to note that a mixture of price awareness dimensions have the potential of intimidating the customers’ satisfaction. The perception of customers about price/service charge fairness is a major concern due to huge interest of mass people (Martin et al., 2009).

2.4.5 Automated Teller Machine and Customers’ Satisfaction

John Shepherd-Barron the then managing director of De La Rue Instruments was the inventor of the first Automated Teller Machine in the United States. The 1960’s is the year to which we can trace the memoir of Automated Teller Machine usage as indicated by the R.B.I.annual report (2009-10), by definition, automated channels is methods of
channeling service products through electronic media for instance the Mobile banking, internet and Automated Teller Machine (David, A. 2014).

ATM as previously highlighted is the abbreviation of Automated Teller Machine, and it is an electronic appliance that gives out or receives cash deposits from account holders. A smart card is used to initiate and complete a transaction with the machine. The smart card or simply put, ATM card as widely called, has electronic chip that identifies each customer with respect to corresponding accounts belonging to the customer (Odewale, 2010).

Mobile banking provides services which are not narrowed to account balances, instruction to issue bank cheques, account payments. More often than not, bank customers queue up in banking halls for services. Automated services have considerably minimized the turn-around-time. While Automated Teller Machine is frequently used electronic service channel, it permits customers to undertake their main banking transactions, such as deposits and withdrawals, round the clock (Ogunlowore and Oladele, 2014).

According to Bishnoi (2013), on customers’ perception, the researcher concluded that automated teller machines are largely expedient mode of electronic banking. The results showed that the automated service quality in banks can be conceptualized into a five factor structure consisting of Automated Teller Machine service quality, telephone banking service quality and internet service quality that were meant to improve service efficiency. An increasing number of banks are using technology to deliver regular service to customer thus quality assurance on their operations is necessary.

Logasvathi & Haitham , 2015) examined the performance of multichannel banks in Spain. Their study concluded that higher profitability for multichannel banks through higher commission income, improved brokerage fees and reductions in personnel levels and summarized that the Internet services was a complement to physical banking channels.

Noticeably scam is one of the problems that have been encountered by most Automated Teller Machine users. The relationship between banking efficiency and the usage of ATM (Automated Teller Machine) is quite a complex one. This is because the overall levels of efficiency and productivity do influence the organization overall success and thus customer satisfaction (David, John, & John, 2014).
This explains why modern banking sectors develop means of increasing organization workers’ efficiency. Some of these ways and means include goal setting, job enrichment, adoption information technology, globalization, training and development. All these represent several practical ways of increasing banking sector’s performance, which could also be a reflection of institutions efficiency which improves customers’ satisfaction. (Omari, 2012).

The achievements and attainment of goals in the banking sector depends mostly on to what extent of customers’ satisfaction in relation to the usage of technology such as Automated Teller Machine adopted in the banking sector. It’s on this basis that performance, levels, efficiency and effectiveness of banking sector and other institutions is measured, (Omankhanlen Odidison, 2009).

Extensive usage of Automated Teller Machine is common among customers since they deem it as a convenient mode of transacting. The banking business has massively been transformed by technological innovations. By aggressively adopting these modes, the application of the usage and the resulting benefits of Automated Teller Machine application have given new impetus in dimensions of service quality and banks are now offering new choices to their customers. (Rajput, 2016).

Mobarek (2007) in a case study of Botswana established that the time interval for handling operations and the waiting time are the most crucial predictors of service quality of Automated Teller Machine.

A study conducted by Al-Hawari et al.(2006) compiled a list of five major items about Automated Teller Machine usage that consisted of functions of Automated Teller Machine, convenient, secured locations, sufficient number of machines and accessibility of the systems and procedures that enhances customers’ satisfaction The study discovered that personnel response, location, quality of currency notes, promptness of card delivery by the bank and effective performance of Automated Teller Machine were optimistically and significantly related to customer’ satisfaction. The frequent breakdown of machine, security and insufficient number of Automated Teller Machine majorly contributed to customers’ dissatisfaction. (Solomon, 2010)
2.4.6 Mobile Banking and Customers’ Satisfaction

Modern management science philosophy considers customer satisfaction as a baseline standard of performance and a possible standard of excellence for any business organization. Especially, banks due to similar services compete together in order to achieve customer satisfaction. They try to create easies for their customers. E- Banking is a new system that most banks have used to achieve this objective. This system opens multiple routes to the customer service (e.g. ATM machines, telephones, Internet and mobile phones). Although, advancements in e-banking technology have already transformed the modern world, E - banking is still an innovation in creating products and services through electronic channels with low cost. These products and services include billing, credit, deposit management and electronic payment of products and services such as electronic money (Samadi and eskandari, 2012).

The introduction of mobile banking usage in the banking sector to the Kenyan community has really transformed the customers and with the introduction, people to transact business on a 24/7 basis thus being able to increase their profits. The banks too are able to provide their banking services to remote rural communities in Kenya.

These financial services are provided at village satellite centre, which are mobile banking units attached to existing branches. They provide the bank services as in normal branch activities, such as taking cash and cheque deposits, savings, money transfers, remittance processing and loans. (Abigael, J : Sangoro, O; Dr.Philemon, B; 2013).

Recently Banks have radically converted from the traditional use of banking to branchless positions of banking. The latest adoption of using technology has helped banks to extend their customer base, while electronic banking has proved to be the main advancement. Mobile banking categorized as the latest development in electronic bank services, while the bank customers can review: Balance inquiry, credit transfer, check account, SMS, payment transaction and other businesses according to banks instruction that send to them through mobile phones. (Deborah and Yurchisin ,2007), a From customers’ perspective mobile banking in the service industry benefits its customers in terms of convenience when performing banks transactions in anytime, anywhere and easy way to use. Therefore, Security is ensured, as banking transactions are encrypted and password-
protected. In a meanwhile the rapidly growth of using technology such as mobile phones has really helped the banks to achieve their goals (Saleem & Rashid, 2011).

Mobile banking usage involves the use of mobile phone for settlement of financial transactions. It supports customer to customer transfers with instant availability of money for the beneficiary. Mobile payments use the card infrastructure for movement of payment instructions as well as secure Short Message Service (SMS) messaging for confirmation of receipt to the beneficiary. Mobile banking is meant to lower transaction cost and time in relation to the speed of completing the transaction. (Heba, 2014).

The services included under this product are account enquiry, changing of passwords, funds transfer, recharge phones and bill payment which are offered by some few institutions (Sathye, 2009) asserts that mobile banking is a vital aspect as it has low transaction costs of payments when there is an electronically accessible store of value in most regulatory administrations.

In Kenya, Mobile-banking and m-payments initially began generating significant attention in 2005, but industry interest and investment capital waned due to subsequent internet bust. In the past few years, however, companies, investors, and industry observers, encouraged by full-scale implementations abroad and limited but successful domestic pilots, have once again began to involve in micro financial services (MFS) as a compelling business opportunity (Onwonga, 2012).

This is because; in the banking sector process and procedures are tedious mainly because of the increasing number of bankers in the industry. The customers are compelled to follow a laid down process to get the services presented by the bank. For instance services such as depositing, checking statements, withdrawals, balance inquiry as well as transfers within and outside the country requires verification, validation and finally transaction (InfoDEV, 2006).

Banking based mobile phone could cover at least 60% of those currently with bank accounts since it’s affordable by low earning people who can easily transact their businesses. Such a service would be used for making money transfers and storing cash securely because people still carry cash, use the post office services and make use of airtime transfers by way of mobile phone. Various organizations use mobile phones in providing financial services such as micropayments, long-distance remittances, and
informal airtime bartering schemes and goes by various names, which include mobile transfers, mobile banking, and mobile payments. M-banking is the best option for sending money since it’s a cost effective way of providing banking services to the unbanked caused by the lack of physical branches to facilitate customers it is also known as branchless banking. It is branchless bank model include transactions via mobile phone, its time saving and more reliable as its available for 24/7 hours (Kahandawa, 2014).

Several factors have shown affect consumer acceptance of online and mobile banking usage for example: demographic, consumer behavior, attitude, motivation, and experience with computer, moreover showed the previous experience by using computers and technology as well people are willing to use online banking. Researchers suggest that attitude factors such as: Internet experience and the advantage of online banking, perceived risk, perceived behavioural control factors that predict to adopt Internet banking services (Khrais, 2012).

2.4.7 Internet Banking and Customers’ Satisfaction

Technological development has really modified the fundamentals of marketing theories, in particularly the financial industry. Internet banking usage has come out as the most critical and reliably forms for customer interaction that encompasses the structural changes which are necessary for the banks to compete in their financial markets but within the regulations. The emergence of digital channels has banks are confronted the banks with the problem of margin pressures and intense competition. In addition the customer’s quest for personalized services has intensified with the implementing of internet banking. Service quality is a pre-requisite for customer satisfaction and in a virtual environment the task becomes even more challenging to banks. E-banking entails the use of internet and telecommunication networks to pass variety of value added services to bank customers by the use of a system that enables individuals to perform banking activities at home or from their offices or over the internet at any time of the day. Internet Banking provides customers with many services and several facilities to carry out online banking transactions of their choice (Isuri, 2014).

Results of the study that was carried out by Asif (2013) has indicated that most of automation users who implement internet banking including youths, educated people, students. Business traders have not been very active in the usage of internet banking
services and that there is a significant relationship that exists among the demographic variables and that of internet banking in a way that internet banking is safeguarding their accounts and information and has led to attraction of customer satisfaction and has also reduced the times of physical presence at banks. The basic services provided by the Internet Banking to customers include opening a bank account, printing bank statement, transferring funds between bank accounts, and paying bills. Some internet banking are traditional banks which also offer online banking but the difference being the lack of a physical location. Traditional banks that uses online banking enables customers to carry out all their routine transactions, namely as bill payments, account transfers, balance inquiries, stop-payment requests, and some even offer online loan applications. Despite banks attempt to mitigate consumer concerns through offering online accounts that typically attract diluted fees and higher interest, managing the ongoing tension between efficiency and human interaction represents a challenge to banking institutions (Mansoori, 2015).

The distinctive nature of the services, with the emergency of technology, had led to contentions with internet banking. Interestingly, despite the efficiencies created by e-banking, many businesses are still keeping duplicative traditional records, and performing traditional banking tasks that result in less than full implementation of the technology and continued dependency on human interactions, (David Wong et al. 2009).

Customers can access account information at any time, day or night, and this can be done from anywhere at affordable cost. Internet banking usage has effectively improved bank services efficiency and delivery in rendering them to the customers. The banking sector in Kenya cannot do away with information systems because they play an eminent role in their daily operations since customers are sentient to technological advancements and demand higher quality services, (Okoro, A. S. 2014).

Automation allows sales persons to operate a higher quality of information about a greater number of customers. At later stages of the customer relationship management process, automation technology can inform salespeople about the business potential of each prospect to decide which prospects to target (Ahearne et al. 2007).

Internet banking usage provides a more convenience way of doing business since it has, lower service charges, more accessible information about bank accounts, and an attractive
option for busy people since it saves time to visit bank branches and gives 24 hours access. All the benefits of Business to Customer e-commerce such as 24/7 bank service, convenience, access from anywhere, one stop shop and access to information also apply to internet banking. (Aurelio, & Simonetta, 2013)

In online banking usage, customers have unlimited access to a bank’s information system at any time anywhere whether at home, work, school where a network connection is available. In this regards, the customer has been defined as an end-user of the bank’s data processing system. In end-user computing, the user’s personal computer plays a pivotal role. (Ahmad, 2011).

2.4.8 Banks Automation and Customers’ Satisfaction

Customer satisfaction is described in line with confirmation/disconfirmation theory which states “satisfaction results from a process of comparison where consumers judge product satisfaction against their expectations about product performance. Automation technologies enable sales activities directly facing the client and can help salespeople maintain their customer relations along the sales cycle, from customer acquisition to maintenance, effectively and efficiently thus leading to customers’ satisfaction and a repeat purchase of the service by a satisfied consumer. (Karigoleshwar, 2012).

For instance, when a sales representative searches online databases for customer and business related information, this improves his understanding of unmet customer needs. Because greater market knowledge leads to a better sense of the potential customer base and segments, salespeople focuses their efforts accordingly and target customers who are likely to fit the sales department’s offerings (Ahearne et al., 2007).

Salespeople who can gear their attention on customers who are qualified and ready to buy will be more efficient and be more likely able to achieve quotas. Automation databases and applications often have the ability that enables sales representatives to keep detailed records about clients and past sales calls. Utilizing customer previous purchase patterns and preferences, salespeople can tailor presentations to adapt to specific buying needs and make better customized sales calls. The use of Information technology allows salesperson to communicate with customers more easily and with greater precision across time and physical location (Moutot and Bascoul 2008).
Information Technology allows salespersons to quickly access relevant databases and organizational units in order to make an order, retrieve information about inventory levels and shipping dates even during the customer visit. Such capabilities improve the speed at which salespeople respond to customers’ needs thus enhancing their satisfaction and service loyalty. Automation can make a salesperson a valuable partner for his customers, a reliable source of market knowledge and a problem solver (Bello, 2011).

Information Technology usage promotes reliability also through the storage and retrieval of key customer concerns and detailed notes regarding the customer’s interests.

Dependable information encourages the customers when making informed decisions about any effect of buying or not buying the salesperson’s product or service. The use of Information Technology provides the customers with a diverse services and a quicker means of service delivery that can be accessed at whichever time and anywhere the services are available (Ahearne et al., 2008).

2.5 Conceptual Framework

According to Kombo and Tromp, (2009) A conceptual framework refers to principles taken from relevant fields of enquiry and a set of broad ideas used to structure a subsequent presentation. A conceptual framework for the study shows the relationship between automation of bank services and customers’ satisfaction and has been depicted in Figure 2.1 below.

**Figure 2.1: Conceptual framework**

Showing the relationship between automation and customers satisfaction.

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Dependent Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATM Usage</td>
<td>Customers Satisfaction</td>
</tr>
<tr>
<td>• Time Saving</td>
<td>• Service quality</td>
</tr>
<tr>
<td>• Ease of Use</td>
<td>• Service charge</td>
</tr>
<tr>
<td>• Efficiency</td>
<td>• Perceived value</td>
</tr>
<tr>
<td>Mobile Banking Usage</td>
<td></td>
</tr>
<tr>
<td>• Security</td>
<td></td>
</tr>
<tr>
<td>• Assurance</td>
<td></td>
</tr>
<tr>
<td>• Convenience</td>
<td></td>
</tr>
<tr>
<td>• Responsiveness</td>
<td></td>
</tr>
<tr>
<td>Internet Banking Usage</td>
<td></td>
</tr>
<tr>
<td>• Safety Reliability</td>
<td></td>
</tr>
<tr>
<td>• Service Security</td>
<td></td>
</tr>
<tr>
<td>• Transaction</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td></td>
</tr>
</tbody>
</table>
2.6 Research gaps

From the foregoing review of relevant literature, it is evident that research in the area of bank automation has been done but not in a comprehensive approach. All the literature reviewed indicates that in the previous researchers work, there was a gap between management Perception of Customer expectations and Service Quality Specification as the management is not willing or able to put the systems or finance in place to match or exceed customer expectations.

From survey of relevant literature, it has been found that there existed some difference between service quality specification and service delivery as a result of service personnel being poorly trained, incapable or unwilling to meet the set service standard. The study therefore intended to fill these pertinent gaps in literature by studying the effects of automation on selected key customers’ satisfaction indicators at Equity bank branch located along Oginga Odinga Street in Uasin Gishu County.
CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Research Design

The study adopted a case study design which sought to describe a unit in detail, in context and holistically. It is an intensive descriptive analysis of a single entity (Willis & David, 2009). According to Kombo and Tromp (2006) it was also applied when gathering data about the people’s attitudes, opinions habits or any of the variety of education or social issues. The design was appropriate because the research was carried out in a small area and the results used to make general comments regarding the relationship between the variables.

3.2 Study Area

The study was carried out in Equity Bank branch located along Oginga Odinga Street in Uasin Gishu County. The study aimed at determining the effect of automation of bank services on customers’ satisfaction at Equity Bank. The study was conducted at Equity bank branch located along Oginga Odinga Street within Uasin County in former Rift valley province. Uasin Gishu County borders Elgeyo Marakwet County, Trans-nzoia and Nandi Counties. Uasin Gishu County hosts many other commercial banks with a population of 894,179 people as per the 2009 National Statistics. The County’s economic activities mainly include dairy farming, sports tourism, large scale wheat and maize farming, horticulture, and a manufacturing hub, with numerous industries and factories that offers employment opportunities to its thousands of urban population. Equity bank is a listed Commercial Bank in Nairobi Stock Exchange and Kenya Securities Exchange with over 5.7 million accounts, accounting for over 57% of all bank accounts in Kenya. Munaye (2009) automation of services has been used as a strategic response by equity bank Kenya limited to the challenge in the external environment making it a suitable area for this study.

3.3 Target Population

According to Mugenda (2009), target population of the study is that population to which the researcher would like to generalize the result of the study. The study was confined to Equity bank branch located along Oginga Odinga Street in Uasin Gishu County, Kenya. The targeted population for the study was 1614. This constituted 1440 expected
registered bank customers in a day, 48 sales representatives, 111 bank agents, 12 sales teams’ supervisors, 1 branch manager, 1 customer care manager and 1 sales manager.

3.4 Sample Size
Yamane, (1967) provides a simplified formula to calculate sample sizes. This formula was used to calculate the sample size for this study as shown below.

\[ n = \frac{N}{1+N\cdot(e)^2} \]

Where \( n \) is the sample size, \( N \) is the population size of the expected registered bank customers in a day and bank agents, \( e \) is the level of precision 5% and 1 designated the probability of the event occurring.

When the formula is applied, the sample size becomes;

\[ N= 1614 \quad e = 0.05 \]

\[ n = \frac{1551}{1+1551(0.05)^2} = 318 \]

Additionally, 48 sales representatives, 12 sales teams’ supervisors, a branch manager, a customer care manager and a sales manager was purposively selected to participate in the study. This makes the total sample size to be 381.

3.5 Sampling Techniques
Sampling technique refers to the procedure which a researcher uses to gather people, places or things to study (Mugenda and Mugenda, 2009). Firstly, the study employed stratified random and purposive sampling technique. Oso (2005) observes stratified random sampling technique as a technique that enables the researcher to identify subgroups in the population and their proportion and select from each subgroup to form a sample. This study used Stratified Random sampling where two categories were selected to form strata: Bank Customers and bank agents. The researcher considered this method appropriate because it is administrative convenient and simple to use.
### Table 3.1: Sample Size

<table>
<thead>
<tr>
<th>CATEGORIES</th>
<th>Target Population</th>
<th>Category Sample Size $n_i = (N_i X n)/N$</th>
<th>Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank Customers</td>
<td>1440</td>
<td>$(1440 \times 318)/1551$</td>
<td>295</td>
</tr>
<tr>
<td>Bank Agents</td>
<td>111</td>
<td>$(111 \times 318)/1551$</td>
<td>23</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1551</strong></td>
<td><strong>$(1551 \times 318)/1551$</strong></td>
<td><strong>318</strong></td>
</tr>
</tbody>
</table>

**Source (Customer Care Desk Equity Bank, Eldoret Branch, 2016)**

After applying stratified random sampling technique, purposive sampling technique was also used to sample 48 sales representatives, 12 sales team supervisors a bank manager, a customer care manager and a sales manager bringing the total to 381, a simple random sampling technique was adopted to select bank agents in Uasin Gishu County. Simple random sampling is a method that no complexities are involved (Mugenda and Mugenda, 2009). For the bank customers, systematic sampling technique was adopted where every 5th registered customer was included in the study.

### 3.6 Data Collection Instruments

The study used questionnaires to collect the required data. The primary data was obtained by the use of questionnaires and interview guides while secondary data on the other hand were obtained from textbooks, journals and articles related to the subject of the study and reviewing of relevant documents such as policy plans and journals that touch on customers’ satisfaction at Equity Bank were also looked at.

#### 3.6.1 Questionnaires

Schwab (2005) defines questionnaires as a tool for measuring instruments that ask respondents to answer a set of statement. According to Mugenda and Mugenda (2003) and Kothari (2004) define a questionnaire as a document that consists of a number of questions printed or typed in a definite order on a form or set of forms. For this study, questionnaire is the main instrument of data collection. According to Dawson (2002), the three types of questionnaires include; closed ended, open-ended or a combination of both where closed-ended questionnaires are used in quantitative research to generate statistics. In this study, most of questionnaires began with a series of closed ended questions, with boxes to scales to rank or tick, and then finish with a section of open ended questions for
detailed response.

3.7 Validity and Reliability of Research Instruments

3.7.1 Validity of the instruments

The research Validity shows to what extent an instrument measures what it is suppose to measure (Kimberlin & Winterstein, 2008). The researcher adopted both content and construct validity where for the content validity, the questionnaire were given to supervisors and researchers at the department of Business and Economics at Kisii University. They assisted in categorizing research items on the instruments. The relevance, consistency of the statements and research questions with the study was checked. For the construct validity, pilot study was conducted and a coefficient of those that measured was computed. The result of 0.833 was compared with the Kaiser-Meyer-Olkin measure of 0.5, therefore considered valid.

3.7.2. Reliability of the instruments

Reliability is a measure of the degree to which a research instrument yields consistent results or data after repeated trial (Okungu, 2010). Reliability of the questionnaire was determined by test retest method, where Twelve (12) questionnaires was administered to respondents from Equity bank customers, Bungoma branch to test their responses followed by using Cronbach's alpha correlation coefficient. As a rule of thumb, acceptable alpha should be at least 0.70 or above (Gliem & Gliem, 2003).

3.8 Data Collection Procedure

After the proposal had been approved by the School of Graduate Studies, the researcher obtained an introduction letter from Kisii University that enabled him get a permit from National Commission for Science, Technology and Innovation (NACOSTI). On acquisition of the permit, the researcher recruited two research assistants that assisted in data collection. The research assistants were taken through training to clearly understand purpose of the study, the research instruments and ethics of research. The research assistants administered the questionnaires with the supervision of the researcher.

3.9 Data Analysis and Presentation

Data analysis involves working with data, organizing, breaking into manageable units, synthesizing, searching for patterns, discovering what’s important to report (Kombo and
Tromp, 2006) and for this study, both quantitative and qualitative data analysis was employed. According to Mbwesa (2006) quantitative analysis involves coding responses into categorical variables followed by application of a Statistical Package for Social Sciences (SPSS) techniques of analysis. Descriptive statistics used included frequencies and percentages while inferential statistics applied were Regression and Pearson correlation determined at 0.05 level of statistical significance \((a = 0.05)\). This applies that the researcher is 95\% confident that the results obtained were as a result of the independent variable and not by chance.

Spearman’s Rank Correlation was used to enable the researcher to determine the direction of association between the variables while in multiple regression analysis, the following model were used.

\[
Y = \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon \quad \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \quad (i)
\]

Where \(y = \text{customer Satisfaction} \)

\(X_1 = \text{mobile banking usage} \)

\(X_2 = \text{internet banking usage} \)

\(X_3 = \text{Automated Teller Machine usage} \)

\(\epsilon = \text{error term.} \)

The results were considered significant at 95\% confidence level. Findings were presented in the form of tabulations (percentages, mean and standard deviation).

3.10 Ethical considerations
The study observed ethical conduct during the process of data collection. Voluntary and informed consent- the researcher had informed consent and authority to carry out the study e.g. introductory letter from the University or the permission letter from the National Commission for Science, Technology and Innovation (NACOSTI) to carry out the research. Anonymity- To achieve anonymity of the data gathered from the field, data such as name were left in the design of the instrument.
CHAPTER FOUR

4.0 DATA ANALYSIS, INTERPRETATION AND DISCUSSIONS

This chapter presents results of data analysis. As part of the descriptive statistics, the demographic variables analyzed included respondents’ gender, age, level of education, period of employment and category of staff in the organization. The purpose of the study was to assess the effects of automation of bank services on customers’ satisfaction at Equity Bank, Uasin Gishu County. Dimensions of automated service quality such as internet banking usage, Automated Teller Machine usage and mobile banking usage as independent variables and customer’s satisfaction as a dependent variable were thoroughly accessed.

4.1 Response Rate
Out of a targeted population of 1614 respondents, a sample of 381 respondents was drawn which included the registered customers, bank agents, sales representatives branch manager, customer care sales manager. Out of these samples 381 questionnaires were distributed. A total of 346 questionnaires were returned from which, 9 questionnaires were discarded for either lack of response, being improperly filled, or being incomplete. The researcher ended up with 337 usable questionnaires, which represented a response rate of 88.4%. This response rate was deemed adequate for external validity. According to Babbie (2002) any response of 50% and above is adequate for analysis thus 88.4 % is even better. This reasonable response rate was made a reality after the research assistants made personal calls and visits to remind the respondent to fill-in and return the questionnaires on time to enable data analysis.

4.2 Reliability statistics
The questionnaire consisted of 25 items in which the perception of the participants was crucial of which 5 items were for demographic data. After questionnaires were filled out, the reliability of each construct (Automated Teller Machine usage, Mobile usage, Internet Banking usage and Customer Satisfaction) the questionnaire was determined using Cronbach’s alpha. The reliability co-efficient of the improved instrument after the pilot survey yielded the following results: Automated Teller Machine usage had five items whose alpha was 0.855, Mobile banking usage had five items which the alpha was 0.901, Internet Banking usage had five items whose alpha was 0.723 and Customer Satisfaction
had five items an alpha of 0.746. De Vaus (2002) suggests that the relationship between one item and the rest of the items in the scale should be at least 0.30. The overall reliability of the instrument was 0.816. These values are higher than the minimum acceptable value of alpha should be at least 0.70 or above (Hair, Money, Samouel, & Page, 2007; De Vaus, 2002; Husna & Retneswari, 2009). Therefore the items were considered reliable.

4.3 Demographic Characteristics
Respondents were asked to provide information regarding their demographic profile that included gender, age, and level of education, how many years have you banked with equity bank. This information was deemed relevant in assessing the effects of automation of bank services on customers’ satisfaction at Equity Bank, Uasin Gishu County since these characteristics could have confounding effects on this relationship.

Results presented in Table 4.1, depicts that majority of the customers were males (58.8%) and females (41.2%), which means that all genders use automated services at equity bank. The distribution of age indicated that most employees were aged between 18-25 (28.5%), followed by 26-35 (37.7%) 36-45(19.9%) 46-55(13.9%) this shows that majority of customers are aged below 35 years this represents a youthful population which are techno savy. It was also found that majority of customers had secondary education (38.6%), followed by college at 32.9% university education 16.6% and primary education 11.9%. this implies that the minimum level education for majority of customers is primary level of education hence could understand what was sought by this study and even interpret questionnaire well. Majority of respondents had banked with equity for more than five years at 74.2%. The implication of this is that they have adequate experience to give information that the researcher can rely on.
Table 4.1: Respondents Demographic characteristics

<table>
<thead>
<tr>
<th>Variables</th>
<th>Cases</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>198</td>
<td>58.8</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>139</td>
<td>41.2</td>
<td></td>
</tr>
<tr>
<td>Age bracket</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-25</td>
<td>96</td>
<td>28.5</td>
<td></td>
</tr>
<tr>
<td>26-35</td>
<td>127</td>
<td>37.7</td>
<td></td>
</tr>
<tr>
<td>36-45</td>
<td>67</td>
<td>19.9</td>
<td></td>
</tr>
<tr>
<td>46-55</td>
<td>47</td>
<td>13.9</td>
<td></td>
</tr>
<tr>
<td>Level of education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary</td>
<td>40</td>
<td>11.9</td>
<td></td>
</tr>
<tr>
<td>Secondary</td>
<td>130</td>
<td>38.6</td>
<td></td>
</tr>
<tr>
<td>College</td>
<td>111</td>
<td>32.9</td>
<td></td>
</tr>
<tr>
<td>University</td>
<td>56</td>
<td>16.6</td>
<td></td>
</tr>
<tr>
<td>Period of banking with equity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 5yrs</td>
<td>87</td>
<td>25.8</td>
<td></td>
</tr>
<tr>
<td>Between 6-10 years</td>
<td>94</td>
<td>27.9</td>
<td></td>
</tr>
<tr>
<td>Between 11-15 years</td>
<td>92</td>
<td>27.3</td>
<td></td>
</tr>
<tr>
<td>Over 16 years</td>
<td>64</td>
<td>19</td>
<td></td>
</tr>
</tbody>
</table>

Source: Authors Computation (2016)

4.4 Descriptive Statistics of the study variables

The findings from the study were presented using descriptive statistics, which included Skewness and Kurtosis, means and standard deviations. Means and standard deviations for the independent and dependent variables were computed from the respondents’ responses. The purpose of means and standard deviations was to provide a general picture of how the respondents perceive the effects of automation of bank services on customers’ satisfaction at Equity Bank, Uasin Gishu County. Skewness and Kurtosis was used to test for the assumption of normality.
4.4.1 Descriptive Statistics of Automated Teller Machine Variable

The researcher sought to establish the level of agreement to various aspects of ATM usage as per objective one. Five questionnaire items were used to examine the prevailing status of organization Automated Teller Machine usage. According to the findings presented in Table 4.2 the respondents tended to agree that cash deposit facility is convenient (M=3.88 SD=1.212). Besides, a majority of the customers also tended to agree that Automated Teller Machines usage are easy (M=3.99 SD=1.061). Respondents also agreed that there are adequate number of Automated Teller Machines thus reducing queuing (M=4.15 SD=1.003). Some respondents agreed that cash processing time is reliable (M=4.15 SD=1.103). Respondents were almost were also in agreement with the fact that cash is always available the system (M=4.33 SD=0.968). The implications of these results is that as much as customers are using the Automated Teller Machine services there is need to enhance convenience in terms of its usage by making the procedures more clear to the customers.

Table 4.2: Automated Teller Machines

<table>
<thead>
<tr>
<th>Response items</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automated Teller Machine cash deposit facility is convenient</td>
<td>3.88</td>
<td>1.212</td>
</tr>
<tr>
<td>Automated Teller Machines are easy to use</td>
<td>3.99</td>
<td>1.061</td>
</tr>
<tr>
<td>There are adequate numbers of Automated Teller Machines thus reducing queue</td>
<td>4.15</td>
<td>1.003</td>
</tr>
<tr>
<td>Cash processing time is reliable</td>
<td>4.15</td>
<td>1.103</td>
</tr>
<tr>
<td>Cash always available in the system</td>
<td>4.33</td>
<td>0.968</td>
</tr>
</tbody>
</table>

Source (Authors computation 2016)
4.4.2 Descriptive Statistics of Mobile Variable
The researcher also sought to establish the level of agreement to various aspects of mobile banking usage as per objective two. Five questionnaire items were used to examine the prevailing status of organizations mobile banking usage. According to the findings presented in Table 4.3 the respondents tended to agree that mobile banking usage have improved their performance in their daily activities (M=3.86 SD=1.392). Besides, a majority of the customers also agree that they intend to use the mobile banking services whenever available as it is convenient (M=4.02 SD=1.225).Some respondents also agreed that mobile banking usage is easy (M=4.24 SD=1.046). Respondents were also in agreement with the fact that mobile banking enhances money security (M=4.13 SD=1.041). Lastly the respondents also agreed that they save a lot by using mobile banking services (M=4.08 SD=1.086).The implications of these results is that majority of customers are in tune with the advancement of technology and are in agreement with its efficiency in facilitating their transactions.

Table 4.3: Mobile Banking

<table>
<thead>
<tr>
<th>Response items</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile banking has improved my performance of daily activities</td>
<td>3.86</td>
<td>1.392</td>
</tr>
<tr>
<td>I intend to use mobile banking services whenever available as its convenient</td>
<td>4.02</td>
<td>1.225</td>
</tr>
<tr>
<td>Mobile banking is easy to use</td>
<td>4.24</td>
<td>1.046</td>
</tr>
<tr>
<td>Using mobile banking enhances money security</td>
<td>4.13</td>
<td>1.041</td>
</tr>
<tr>
<td>Customers save a lot by using mobile banking services</td>
<td>4.08</td>
<td>1.086</td>
</tr>
</tbody>
</table>

Source (Authors computation 2016)
4.4.3 Descriptive Statistics of Internet Banking Variable

The researcher also sought to establish the level of agreement to various aspects of Internet banking as per objective three. Five questionnaire items were used to examine the prevailing status of organizations internet banking usage. According to the findings presented in Table 4.4 the respondents tended to agree that website provides accurate information which meets management needs (M=3.96 SD=1.320). Besides, a majority of the customers also tended to agree that internet banking usage provides security for transaction and data and privacy (M=3.95, SD=1.241). Some respondents also agreed that information on internet banking usage is up to date (M=4.29 SD=.975). Respondents were also in agreement with the fact that internet banking performs right the first time (M=4.11 SD=1.032). Lastly the respondents also agreed that transaction process is fast (M=4.06 SD=1.194). The implications of these results is that the bank should pay high premiums on internet banking usage especially on security and privacy of transactions in order to engender maximum customer satisfaction.

Table 4.4: Internet Banking

<table>
<thead>
<tr>
<th>Response items</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Its website provides accurate information which meets my needs</td>
<td>3.96</td>
<td>1.320</td>
</tr>
<tr>
<td>It provides security for transaction data and privacy</td>
<td>3.95</td>
<td>1.241</td>
</tr>
<tr>
<td>Information in internet banking services is up-to-date</td>
<td>4.29</td>
<td>.975</td>
</tr>
<tr>
<td>It performs the services right the first time</td>
<td>4.11</td>
<td>1.032</td>
</tr>
<tr>
<td>Transaction process is first</td>
<td>4.06</td>
<td>1.194</td>
</tr>
</tbody>
</table>

Source (Authors computation 2016)

4.4.4 Descriptive Statistics of customer satisfaction Variable

The researcher also sought to establish the level of agreement to various aspects of customer satisfaction as per the dependent variable. Five questionnaire items were used
to examine the prevailing status of customer satisfaction. According to the findings presented in Table 4.5 the respondents tended to agree that using automated system help them do their transactions efficiently (M=3.88 SD=1.186). Besides, a majority of the customers also tended to agree that their interaction with the automated system is clear and understandable (M=3.97 SD=.905). Some respondents also agreed that they find it easy to use the automated system (M=4.20 SD=.905). Respondents were also in agreement that using automated system in their jobs saves time (M=4.09 SD=.996). Lastly the respondents also agreed that they find it easy to find the automated system to do what they want (M=4.06 SD=.890). The implications of these results is that as much as the customers are satisfied with the automation of banking services there is need to address cases of efficiency and clarity of use to the customers.

Table 4. 5: Customer Satisfaction

<table>
<thead>
<tr>
<th>Response items</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using automated systems help me do my transaction efficiently</td>
<td>3.88</td>
<td>1.186</td>
</tr>
<tr>
<td>My interaction with automated system is clear and understandable</td>
<td>3.97</td>
<td>1.032</td>
</tr>
<tr>
<td>I find it easy to use the automated system</td>
<td>4.20</td>
<td>.905</td>
</tr>
<tr>
<td>Using automated system in my job saves time</td>
<td>4.09</td>
<td>.996</td>
</tr>
<tr>
<td>I find it easy to get the automated system to do what I want</td>
<td>4.06</td>
<td>.890</td>
</tr>
</tbody>
</table>

Source (Authors computation 2016)

4.5 Predictive Analyses

To determine which among the dimensions of automation of bank services predict customer satisfaction, multiple regressions was used in order to assess the effect of automation of bank services on customer satisfaction. However, before multiple regression analysis was conducted, assumptions of regression analysis were first tested.
4.5.1 Assumption of Normality

Normality of data was assessed using Skewness and Kurtosis statistics (Tabachnick & Fidell, 2013). The acceptable range for skewness or kurtosis below +1.5 and above -1.5 (Tabachnick & Fidell, 2013). If both tests have been fulfilled, then the data can be considered as normally distributed and no any skewed distribution. Results presented in Table 4.6 reveal that normality assumption was supported. None of the Skewness and Kurtosis values fell outside the stated range.

Table 4.6: Test for Normality

<table>
<thead>
<tr>
<th>Source</th>
<th>Skewness Statistic</th>
<th>Kurtosis Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATM</td>
<td>-0.960</td>
<td>0.691</td>
</tr>
<tr>
<td>Mobile Banking</td>
<td>-1.234</td>
<td>1.441</td>
</tr>
<tr>
<td>Internet Banking</td>
<td>-1.188</td>
<td>0.923</td>
</tr>
<tr>
<td>Customer Satisfaction</td>
<td>-1.064</td>
<td>0.707</td>
</tr>
</tbody>
</table>

Source: Authors computation (2016)

4.5.2 Assumption of Linearity

Pearson’s product moment correlation coefficients were used to test linearity assumption. The purpose of using correlation was to identify automation of banking services dimensions that provide best predictions for conducting regression analysis. The intercorrelations among the variables are shown in Table 4.7.

From the results, it can be seen that correlations among the dimensions were significant. Correlations between Automated Teller Machine usage, Mobile banking usage and Internet banking usage, where r=.816**, r=.919** and r=.881* respectively were also positively and significantly related to customer satisfaction where P<0.01. Linearity assumption was therefore satisfied. This implies that all the dimensions of automation of banking services under study jointly have a positive and significant impact on customer satisfaction as such it behaviour the management of the organization to pay high premiums on these dimensions of automation of banking services among others to secure high customer satisfaction.
4.6 Effects of automation of banking services on customer satisfaction

Multiple regression analysis was used to test the formulated hypotheses. First, the model summary was analyzed to establish the strength of the conceptualized dimensions of automation of banking services predicting customer satisfaction. Results presented in Table 4.8 reveal that the three dimensions namely Automated Teller Machine usage, Mobile Banking usage, Internet Banking usage 89.4% of the variation customer satisfaction (Adjusted R Square = 0.894). Therefore, the remaining 10.6% is explained by other aspects not considered in the study.

Table 4. 7: Test for Linearity

<table>
<thead>
<tr>
<th></th>
<th>ATM usage</th>
<th>Mobile Banking usage</th>
<th>Internet Banking usage</th>
<th>Customer Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATM usage</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mobile Banking usage</td>
<td>.773**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet Banking usage</td>
<td>.686**</td>
<td>.879**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Customer Satisfaction</td>
<td>.816**</td>
<td>.919**</td>
<td>.881**</td>
<td>1</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).

Source Authors computation (2016)

Second, the ANOVA output was examined to check whether the proposed model was viable. Results shown in Table 4.9 reveal that the F-statistic was highly significant (F= 948.441 p<0.05), this shows that the model was valid.
Table 4.9: ANOVA\(^b\)

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>128.291</td>
<td>3</td>
<td>42.764</td>
<td>948.441</td>
<td>.000(^a)</td>
</tr>
<tr>
<td>15.014</td>
<td>333</td>
<td>.045</td>
<td></td>
<td></td>
</tr>
<tr>
<td>143.306</td>
<td>336</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(a\). Predictors: (Constant), Automated Teller Machine, Mobile Banking, Internet Banking

b. Dependent Variable: Customer Satisfaction

Source: Authors computation (2016)

The model significantly improved the ability to predict customer satisfaction. Thus, the model was significant leading to rejection of the null hypotheses.

4.6.1 Regression coefficients of customer satisfaction

Results of the regression coefficients presented in Table 4.10 shows that the estimates of \(\beta\) values and give an individual contribution of each predictor to the model. The \(\beta\) value tells us about the relationship between customer satisfaction with each predictor. The positive \(\beta\) values indicate the positive relationship between the predictors and the outcome. The \(\beta\) value for Automated Teller Machine usage (.257), Mobile Banking usage (.446), and Internet Banking usage (.313) were positive. The positive \(\beta\) values indicate the direction of relationship between predictors and outcome. From the results (Table 4.10) the model was then specified as:-

\[
y = \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \epsilon \ldots
\]

**Customer Satisfaction= .257 Automated Teller Machine usage +.446 Mobile Banking usage +.313 Internet Banking usage**

The coefficients for each of the variables indicates the amount of change one could expect in customer satisfaction given a one-unit change in the value of that variable, given that all the variables in the model are standardized basing on the standardized coefficients. Results reveal standardized regression coefficient for Automated Teller Machine usage (\(\beta=0.257\)), implies that an increase of 1 standard deviation in Automated
Teller Machine usage is likely to result in a 0.643 standard deviations increase in customer satisfaction. Standardized regression coefficient for Mobile banking usage (β=0.446), implies that an increase of 1 standard deviation in mobile banking usage is likely to result in a 0.446 standard deviations increase in Customer satisfaction. Standardized regression coefficient for Internet Banking usage (β=0.313), implies that an increase of 1 standard deviation in Internet banking usage is likely to result in a 0.313 standard deviations increase in customer satisfaction.

T-test was used to identify whether the predictors were making a significant contribution to the model. When the t-test associated with β value is significant then the predictor is making a significant contribution to the model. The smaller the value of significance (the larger the value of t) meaning greater is the contributor of that predictor. The results show that Automated Teller Machine usage (t =9.189, P<.05), Mobile Banking usage (t =10.452, P<.05) and Internet Banking usage (t =8.416, P <.05). These findings indicate that Automated Teller Machine usage, Mobile banking usage and Internet Banking usage as predictors, which significantly affect Customer satisfaction at equity bank. These results imply that Mobile banking usage is most important predictor for customer satisfaction.

Table 4. 10: Regression Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
<th>Co linearity Statistics</th>
</tr>
</thead>
</table>

46
<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>Std. Error</th>
<th>β</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>0.125</td>
<td>.078</td>
<td>1.601</td>
<td>.110</td>
<td></td>
</tr>
<tr>
<td>Mobile Banking</td>
<td>.421</td>
<td>.040</td>
<td>.446</td>
<td>10.452</td>
<td>.173</td>
</tr>
<tr>
<td>Internet Banking</td>
<td>.273</td>
<td>.032</td>
<td>.313</td>
<td>8.416</td>
<td>.228</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Customer satisfaction

Source: Authors computation (2016)

### 4.7 Hypothesis testing

**H01**: Automated Teller Machine usage does not significantly affect customer satisfaction at equity bank. Multiple regression analysis showed that a significant effect exists between dependent variable and independent variables. From the regression analysis table, P< 0.05 table 4.11 that is sufficient to show relative importance. Therefore, it is evident from the results that null hypothesis is rejected and alternate hypotheses are accepted as Automated Teller Machine usage was found to be a positive and a significant predictor of customer satisfaction. This finding supports the findings of (Vijay, 2011). This implies that banks should be strongly committed to look after their Automated Teller Machine usage because this can foster customer satisfaction and secure greater customer commitment which can warrant an increase in market performance.

**H02**: Mobile banking usage does not significantly affect customer satisfaction at equity bank. Hypothesis two postulated a lack of significant effect of mobile banking usage on customer satisfaction. Standardized regression weight was found to be positive and explores that a positive significant effect is caused by independent variable on dependent variable. The value of P<0.05 which is significant table 4.11. Therefore, these results are providing sufficient ground for rejection of null hypotheses and accepting alternate hypotheses. In fine these results confirms that mobile banking usage has a significant effect on customer satisfaction. These findings supports the argument that mobile banking usage increases service quality of the banks can satisfy and develop attitudinal loyalty which ultimately retains valued customers (Nadiri, et al 2009). The higher level of
perceived service quality results in increased customer satisfaction. This implies that organizations should offer more active support for mobile banking usage in order to engender high levels of customer satisfaction.

**Ho$_3$:** Internet banking usage does not significantly affect customer satisfaction at equity bank. This hypothesis postulated a lack of a significant effect of internet banking usage on customer satisfaction. From Multiple regression results the value $P<0.05$ in table 4.11. These results are providing sufficient ground for rejection of null hypotheses and accepting alternate hypotheses. In fine, it has been found to be true that internet banking usage is a positive and significant predictor of customer satisfaction. These findings are in line with the scientific research conducted by (Kumbhar, 2011) who also found out that internet banking usage significantly affects customer satisfaction. This implies that effective internet banking usage management makes the banking services attractive, comfortable, and satisfactory to customers.

**Table 4. 11: Summary for Hypothesis Testing**

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>t and P values</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ho$_1$: Automated Teller Machine does not significantly affect customer satisfaction at equity bank.</td>
<td>$\beta =.257$ $P&lt;0.05$</td>
<td>Reject</td>
</tr>
<tr>
<td>Ho$_2$: Mobile Banking does not significantly affect customer satisfaction at equity bank.</td>
<td>$\beta =0.446$ $P&lt;0.05$,</td>
<td>Reject</td>
</tr>
<tr>
<td>Ho$_3$: Internet banking does not significantly affect customer satisfaction at equity bank.</td>
<td>$\beta =0.313$ $P&lt;0.05$,</td>
<td>Reject</td>
</tr>
</tbody>
</table>

Source Author 2016

**4.8 Discussion of results**

The main purpose of the study was to assess the effects of automation of banking services on customer satisfaction in Equity bank. From the results, there is no second opinion to the fact that automation of banking services affects customer satisfaction. In fine banks can only attain competitive position during this era of globalization, competition, and rising cost of production by embracing effective automation of banking services, which
can guarantee high customer satisfaction. This fact is underpinned by the findings of this study.

The first objective of this study was to establish the effects of Automated Teller Machine usage on customer satisfaction at Equity bank. According to (Swamanith and Anath 2015) The Automated Teller Machine usage has increased and also helped by the fact that customer have now the flexibility of using the Automated Teller Machine. From the findings respondents were tending to agree that Automated Teller Machine cash deposit is convenient; and Automated Teller Machines are easy to use. This implies that there is need for more aware creation and customer education on the usage of Automated Teller Machines services at equity bank so that they can embrace as this has the Capacity to engender high customer satisfaction. From the results there was a significant positive correlation between Automated Teller Machine usage and customer satisfaction r= 0.816** P<0.01. These results were found to be in congruence with some of previous study by Shamsher (2011). The Automated Teller Machine usage have a positive impact on the customer satisfaction; if proper functioning is ensured by the banks, there will be significantly higher customer satisfaction. This implies that banks can only engender customer satisfaction through quality Automated Teller Machine services and functional free from inconveniencies. The responsiveness is crucial to sustain service quality and facilitates building long-term relationship between service provider and the customers (Long and McMellon, 2004; Bauer et al., 2011). Besides, a number of studies have highlighted the satisfaction of customers with Automated Teller Machines usage (Mobarek, 2012; Komal and Singh, 2009).

The second objective of the study was to determine the effects of mobile banking usage on customer satisfaction. Mobile banking usage is an important aspect since the transaction costs of payments are greatly reduced when there are an electronically accessible store of value in most regulatory regimes which impacts on customer satisfaction (Karjaluoto, 2002). From the research findings there was a significant and positive correlation between mobile banking usage and customer satisfaction r= 0.919** P<0.01 in equity bank. These findings are consistent with the ones in previous research of (Zohra and Rashid 2011). This implies that the bank should make significant investments in mobile banking so as to engender and sustain customer satisfaction. According to the items under investigation on mobile banking usage at equity bank, some respondents tend
to agree (M=3.68 SD=1.392) that mobile banking usage has improved their performance of daily activities, while the rest are in total agreement that they intend to use mobile banking services whenever available as its convenient, Mobile banking is easy to use. Using mobile banking enhances money security, Customers save a lot by using mobile banking services. This is in line with the argument of (Dahlberg, 2009) that from customers’ perspective adopting mobile banking services benefit in terms of convenience to perform banking transactions anytime and anywhere, with ease to use. Security is ensured, as banking transactions are encrypted and password-protected. This implies that the banks mobile services are tailor made to meet customers’ needs hence customer satisfaction.

The third objective of the study was to examine the effects of internet banking usage on customer satisfaction. Internet banking usage is considered as an online revolution of the traditional banking services which offers customers the greatest expediency for performing banking transactions via the Internet. The findings of this study is that there is a significant and positive correlation between internet banking usage and customer satisfaction r=0.881** P<0.01. These findings are in line with the findings of Maasomeh, Bahram and Mandan (2013) who found that internet banking usage impacts on customer satisfaction significantly and positively. The implication of these results is that the banking sector should give eminence to internet banking usage owing to its capacity to invoke customer satisfaction. These results will give equity bank enough reason to consider internet banking usage as an essential factor in enhancing customer satisfaction.

Result of multiple regressions further revealed that automation of banking services dimensions jointly and independently influences customer satisfaction in Equity bank. The regression model was statistically significant and explained approximately 89.4% of the variance of customer satisfaction. Predictors of customer satisfaction are Automated Teller Machine usage, Mobile banking usage, internet banking usage. As evident from the results displayed, amongst the Automation of banking services dimensions, the most important predictor with respect to customer satisfaction in equity bank was mobile banking usage, with (β= 0.446,t=10.452 P=0.00). This suggests that in the light of Automation of banking services, Mobile banking usage as a concept, when embraced by banking sector will contribute extensively to improving customer satisfaction as compared to Automated Teller Machine usage, Internet banking usage in Equity bank,
Eldoret branch Uasin Gishu County. However, it should be adopted besides Automated Teller Machine usage and internet banking usage to enhance a synergistic relationship, which would eventually warrant high levels of customer satisfaction. The implication of this is that automation of banking services dimensions under study in equity bank jointly has a positive and significant impact on customer satisfaction.
CHAPTER FIVE
SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATION

5.1 Summary
The main objective of this study was to assess the effects of automation of bank services on customer satisfaction at equity bank. The study investigated the effects of Automated Teller Machine usage, Mobile banking usage, Internet banking usage on customer satisfaction. In the background of this study was to establish that automation of banking services on customer satisfaction.

5.1.1 Effects of Automated Teller Machine usage on customer satisfaction
In view of statistical results Automated Teller Machine usage was found to have a positive relationship with customer satisfaction \( r = 0.816^{**} \, P<0.01 \). The result of multiple regression showed that \( \beta=0.257 \), which implies that an increase of standard deviation in Automated Teller Machine usage by 1 is likely to result in a 0.257 standard deviations increase customer satisfaction. The values of P obtained, \( P<.05 \) suggests that amongst the variables, Automated Teller Machine usage significantly affects customer satisfaction. The implications of these results is that the banks may acquire better customer satisfaction results by ensuring the Automated Teller Machine usage meets customers’ needs in terms of efficiency and accessibility.

5.1.2 Effects of Mobile banking on customer satisfaction
In mobile banking usage, Customers can withdraw cash from their Equity Bank Account to their M-PESA accounts and can also deposit through their M-PESA accounts to their Bank account. Mobile banking usage provides an additional convenient method for managing money without handling cash. Therefore mobile banking usage as a whole has proven to be related to customer satisfaction. From the findings of this study mobile banking usage was found to be significantly positively related to customer satisfaction \( (r=0.919^{**} \, p<.01) \). The results of multiple regression indicates that \( \beta=0.446 \). This implies that an increase of 1 standard deviation in mobile banking usage is likely to result in a 0.446 standard deviations increase in customer satisfaction<0.05. Mobile banking usage was also found to significantly affect customer satisfaction. These results imply that though the convenience of mobile banking usage is adequate to actuate customer satisfaction there is need to further improve the service quality to increase even further customer satisfaction.
5.1.3 Effects of internet banking on customer satisfaction

Internet banking usage brings convenience, customer centricity, enhance service quality and cost effectiveness in banking services and increasing customers’ satisfaction in light of e-service era. Therefore internet banking usage remains important in securing high customer satisfaction. The findings from this study showed a positive significant correlation between internet banking usage and customer satisfaction (r=0.881 **p<.01), multiple regression indicates that (β=0.313), implies that an increase of 1 standard deviation in internet banking usage is likely to result in a 0.313 standard deviations increase in customer satisfaction. P<.05 thus internet banking usage significantly affects customer satisfaction. The implication of these results is that banks should be committed in finding possibilities of gaps between customers’ expectations and actual perception of service quality of internet banking usage to continuously foster customer satisfaction.

5.2 Conclusions

From the findings this study makes a number of conclusions. Concerning the first objective, which is the effects of Automated Teller Machine usage on customer satisfaction, the study results have indicated that Automated Teller Machine usage has a positive and significant correlation with and predictor of customer satisfaction. Therefore, the study concludes that Automated Teller Machine usage remains one of the key elements of Automation of banking services, which affects customer satisfaction. This means that the banking sector should pay high premiums on the efficiency and accessibility of Automated Teller Machine services in order to enhance customer loyalty and satisfaction.

The second objective sought to find out the effects of mobile banking usage on customer satisfaction. Responses from the respondents’ points to the fact that mobile banking engenders high customer satisfaction however the organization should focus on the service quality so as to ferment even high customer satisfaction. From the findings the study therefore concludes that mobile banking usage was the greatest contributor to customer satisfaction amongst the key dimensions of automation of banking services and significantly affecting customer satisfaction. This can be ascribed to the efficiency and reliability of the mobile banking services provided by equity bank.
In the third objective of the study was on the effect of internet banking usage on customer satisfaction, it has proved that internet banking plays a vital role in stoking customer satisfaction. The research on internet banking usage also revealed that the transaction process is first besides it performs the services right the first time. However, there was no absolute agreement that it provides security for transaction data and privacy.

In conclusion, automation of banking services dimensions affects significantly customer satisfaction as revealed by the results of standardized values of this study. However, mobile banking usage has a more significant effect but in consort with Automated Teller Machine usage and Internet banking usage they would jointly enhance high customer satisfaction. Thus the current study provides absolute support to the suggestions that automation of banking services be recognized as a significant precursor for customer satisfaction.

5.3 Recommendations

In view of the findings of the study and the guidance from the literature review, it is apparent that automation of banking services is an important ingredient to satisfy the various needs of the customers and in return eliciting high customer satisfaction. While there are other factors crucial for customer satisfaction, from the results the banks should pay more attention in addressing efficiency and reliability of Automated Teller Machine usage and internet banking usage besides mobile banking usage in order to increase customer satisfaction. In this regard, the current study makes the following recommendations.

i. Authorities of banking services should acquire high customer satisfaction by ensuring convenience in the use of Automated Teller Machine services

ii. Transactions and withdrawals are made every now and then thus additional Automated Teller Machine may be installed in order to minimize customer's transaction time and if possible increase cash withdrawal limits per day

iii. The Banks should frequently inspect the Automated Teller Machine, it is helpful to avoid breakdown of Automated Teller Machine and also provide security guards to improve the safety and security in Automated Teller Machine services particularly at night.
iv. The bank should establish more user friendly machines in order to reduce the machine complexity and establish Automated Teller Machines in different locations in order to meet the customer needs.

v. Banks should provide, increase customer education on usage of Automated Teller Machine through mass media such as, television, bill board and radio as well as paste directive posters at every Automated Teller Machine centers across the country as these will ensure that the services are easy and clear to enhance effective interaction for maximum customer satisfaction.

vi. Internet banking services is efficient enough to bring about high customer satisfaction. However the bank should assure customers of the security and privacy of internet banking services so as to maximize on customer satisfaction.

vii. There is the need to educate majority of the banking population on internet banking. This is not because most of the customers administered with the questionnaires rejected or refused to answer the questionnaire because they did not know of the services nor had minimal education of internet banking services.

viii. It is important for these banks offering services electronically to differentiate themselves from competitors. They need to provide information for customers on various competing services.

ix. It is important to highlight for banks to focus on the value than the customer generates, rather than the value that banks can offer to their customers by making customers aware of the information and relative advantages of e-banking services.

x. The fact that automation of banking services dimensions under study gave positive and significant results. This study submits to management and policy makers of equity bank to take appropriate measures in making these automated services more reliable, responsive and customer assurance to secure maximal customer satisfaction.

xi. The bank management should build strong system security to attract customers and develop their trust by ensuring that they meet all the promises delivered to customers during marketing advertisements.

xii. Since quick response can increase customer satisfaction, personal contact can establish good relationship and trust with customer. It is recommended that the banks can provide live support over the internet instead of support through emails.
Banks should build customers recognition of internet banking emphasize the advantages of internet banking services, i.e. time saving, low cost services, and convenience and information availability.

5.4 Suggestion for further studies

The present study focused on the effects of automation of banking services on customer satisfaction at equity bank. With Automated Teller Machine, Mobile banking and Internet banking as independent variable while customer satisfaction being the dependent variable.

To gain a more comprehensive understanding on this theme, future research should include the moderating effects of marketing strategies on the relationship between Automation of banking services and customer satisfaction.

A similar study could be conducted with a larger sample size so that results could be generalised to a larger population.

The researcher also recommends that a study should be carried out to establish the challenges encountered by the customers in the process of using mobile banking in the service delivery.

REFERENCES

Abdelghani, E. (2012). Applying Servqual to Banking Services: An Exploratory Study in


alternative to hierarchical and multidimensional models. *Total Quality Management*. Vol. 21, Number 1, p.93–118.


Saleem and Kashif, Rashid (2011). Relationship between customer satisfaction and mobile banking adoption in *Pakistan International Journal Of Trade,*
http://dx.doi.org/10.1177/1470593111403221


APPENDIX I: QUESTIONNAIRE

GENERAL INFORMATION

Sir/ Madam;

My name is Erick O. Ombok and I am undertaking a research on the effects of automation of bank services on customers’ satisfaction. Please feel free to answer the questionnaire as frankly as possible. Responses to these questions will be treated confidentially. Do not write your name anywhere on this paper. Please tick (✓) on the appropriate choice(s) which you think is the answer(S) or more correct response(s) to the questionnaire.

SECTION A: RESPONDENT INFORMATION

1. What is your gender?
   Male {    }                                         Female {    }

3. What is your age bracket?
   18-25{   }      26-35{    }           36-45{     }     46-50{     }

4. What is your level of education?
   Primary {     } Secondary {     } College {   } University {   }

5. IF a customer how many years have you banked with the equity bank?
   1-5yrs {   }          6-10yrs {    }       11-15yrs {   }     16-20yrs {   }

SECTION B: AUTOMATED SERVICES AND CUSTOMER SATISFACTION

The following tables in Parts I, II, III, and IV have statements regarding effects of Automated Teller Machine usage, Mobile banking usage and Internet banking usage on customer satisfaction. Please indicate the extent to which you agree or disagree with the statements 1= (SA) Strongly Agree, 2= (A) Agree, 3= (N) Neutral, 4= (D) Disagree, 5= (SD) Strongly Disagree
### PART I: AUTOMATED TELLER MACHINE USAGE

<table>
<thead>
<tr>
<th>Statements</th>
<th>SD</th>
<th>D</th>
<th>UD</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automated Teller Machine Cash deposit facility is convenient</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Automated Teller Machines are easy to use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>There are adequate number of Automated Teller Machines thus reducing queue</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash processing time is reliable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash is always available in the system</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

### PART II: MOBILE BANKING USAGE

<table>
<thead>
<tr>
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<th>UD</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile banking services have improved my performance in my daily activities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I intend to use mobile banking services whenever available as its convenient</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mobile banking is easy to use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Using mobile banking enhances money security</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customers save a lot by using Mobile banking services</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

### PART III: INTERNET BANKING USAGE

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<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Its website provides accurate information which meets my need</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>It provides security for transaction data and privacy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information in Internet banking Service is up to date</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>It performs the service right at the first time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transaction process is fast</td>
<td></td>
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</tbody>
</table>
### PART IV: CUSTOMER SATISFACTION

<table>
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<th>UD</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using our automated system helps me do my transactions efficiently</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My interaction with our automated system is clear and understandable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I find it easy to get the automated system to do what I want.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I find the automated system easy to use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Using our automated program in my job saves me time.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX II: RESEARCH PERMIT

THIS IS TO CERTIFY THAT
MR. ERICK ODOLLA OMBOK
OF KIST UNIVERSITY, 8883-30106
HAS OBTAINED PERMISSION TO CONDUCT
A RESEARCH IN Uasin Gishu COUNTY
ON THE TOPIC: EFFECT OF AUTOMATION OF BANK SERVICES ON CUSTOMER SATISFACTION
FOR THE PERIOD ENDING

CONDITIONS

1. You must report to the County Commissioner and the County Education Officer of the area before commencing your research. Failure to do this may lead to the cancellation of your permit.
2. Government Officers will not be interviewed without prior appointment.
3. No questionnaire will be used unless it has been approved.
4. Mail and forward collection of biological samples are subjects to further permission from the relevant Government Ministries.
5. You are required to submit at least two (2) hard copies and one (1) soft copy of your final report.
6. The Government of Kenya reserves the right to amend the conditions of this permit at any time without notice.

RESEARCH CLEARANCE PERMIT

CONDITIONS: see back page
APPENDIX III: RESEARCH AUTHORIZATION

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

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Website: www.nacosti.go.ke

Ref. No. NACOSTI/P/16/27460/10108

Date: 10th May, 2016

Erick Ogolla Ombok
Daystar University
P.O Box 44400-00100
NAIROBI

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on “Effect of automation of bank services on customers satisfaction,” I am pleased to inform you that you have been authorized to undertake research in Uasin Gishu County for the period ending 10th May, 2017.

You are advised to report to the Branch Managers of selected Commercial Banks, the County Commissioner and the County Director of Education, Uasin Gishu County before embarking on the research project.

On completion of the research, you are expected to submit two hard copies and one soft copy in pdf of the research report/thesis to our office.

Boniface Wanyama
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The Branch Managers
Selected Commercial Banks.

The County Commissioner
Uasin Gishu County.

The County Director of Education
Uasin Gishu County.
