

**ELECTRONIC BANKING AND CUSTOMER SATISFACTION IN BANKING
INSTITUTIONS IN KIGALI RWANDA**

BY

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**A THESIS PRESENTED TO THE COLLEGE OF ECONOMICS AND MANAGEMENT
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OCTOBER, 2016

DECLARATION A

This thesis is my original work and has not been presented for a Degree or any other academic award in any university or Institution of Learning.

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Date

07/11/2016

DECLARATION B

I confirm that the work reported in this thesis was carried out by the candidate under my supervision

Name and Signature of Supervisor

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Date

7th 2016.

APPROVAL

I confirm that work reported in this research proposal will be carried out by the candidate whose name is Keneth Nuwagira under my supervision.

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Date:

Signature:

DEDICATION

I dedicate this book to my family members who in all ways have been too supportive to see me achieve this level of study.

Few among them include the following;

My parents, Mr.Enos Rwakibende and my late mum Norah Munywanisa, my uncles; Sam, Benon, Fred, Justus, Ronald, Jackson, my aunts; Jennifer, Scovia, Eve, as well as my friends; Ntambara, Elias, Fred,Isaac and Rwamwojo.

Also, I dedicate the book to the rest of my entire family as a motivation especially to the young youths for them to aim higher.

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ABSTRACT

This study aimed at establishing the relationship between electronic banking and customer satisfaction among banking institutions in Kigali Rwanda. It was guided by three objectives that included; i) examining the effect of ATM usage on customer satisfaction in selected Banking institutions in Kigali , Rwanda; ii) establishing how electronic funds transfer affects customer satisfaction in selected Banking institutions in Kigali , Rwanda; iii) establishing how Telephone banking affects customer satisfaction in selected Banking institutions in Kigali Rwanda. This research employed descriptive correlation research design to describe the relationship between variables. The study population was 1000 and sample size was 285 respondents. The findings revealed the following; ATM usage significantly affects customer satisfaction in selected banking institutions in Kigali Rwanda, electronic funds transfer has a significant effect on customer satisfaction in Selected banking institutions in Kigali Rwanda, and lastly, telephone banking has a significant relationship on customer satisfaction in Selected banking institutions in Kigali Rwanda. The researcher concluded that; effective ATM usage increases customer satisfaction in Selected banking institutions in Kigali Rwanda, improvement in electronic funds transfer increases customer satisfaction in selected banking institutions in Kigali Rwanda, effective telephone banking improves customer satisfaction in selected banking institutions in Kigali Rwanda and ineffective telephone banking reduces customer satisfaction, the researcher concluded that better electronic banking increases the level of customer satisfaction among banking institutions in Kigali Rwanda, and conversely infective electronic banking system reduces it. The researcher recommended that; the banking institutions in Kigali Rwanda should set up more ATM machines, this will make the customers access the services all the time, the banking institutions in Kigali Rwanda should carry out different workshops aiming at teaching their clients, hence providing them with all the knowledge and skills of using ATM machines, the banking institutions in Kigali Rwanda should provides electronic funds transfer services 24 hours, hence helping the clients to access the services all the time, the banking institutions in Kigali Rwanda should improve more on the customers' feedback, these banks without delay should respond to clients' problems, suggestions, and complaints immediately, the staff of the selected banking institutions in Kigali Rwanda should be able to help the customers whenever they experience any problem with electronic banking system, and it should be handled in a prompt manner, the staff of the selected banking institutions should be able to help the customers that whenever they request for any service in these banks, they render it so fast to the customers, and the researcher recommends that the banking institutions in Kigali Rwanda should use

phone calls, e-mails and personnel visits while communicating with customers, this will also lead to the improvement in customers' feedback.

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CHAPTER ONE

INTRODUCTION

1.0 Introduction

In this context, this part of the research work entails the background of the study, statement of the problem, purpose of the study, objectives of the study, research questions, and scope of the study, conceptual framework and significance of the study.

1.1 Background of the Study

This part of the research proposal entails the four background perspectives including historical, theoretical, conceptual, and contextual perspectives.

Historical prospective

The new millennium brought with it new possibilities in terms of information access and availability simultaneously, introducing new challenges in protecting sensitive information from some people while making it available to others. Today's business environment is extremely dynamic and experience rapid changes as a result of technological improvement, increased awareness and demands Banks to serve their customers electronically. Banks have traditionally been in the forefront of harnessing technology to improve their products and services. The Banking industry of the 21st century operates in a complex and competitive environment characterized by these changing conditions and highly unpredictable economic climate (Anderson, 1993).

In the wake of internet revolution, the electronic commerce emerged and allowed businesses to interact more effectively with their customers other corporations. In this proliferated information age, banking industry has been using this new communication channel to reach its varieties of customers. Undoubtedly, electronic banking (e-banking) has experienced explosive growth and has been transformed. Since the mid-1990s, there has been a fundamental shift in banking delivery channels towards using self-service channels such as, electronic banking, mainly the use of Automated Teller Machines (ATM) and internet banking. According to Qureshi et al, (2008), almost 50 %

of the clients shifted from the traditional banking to online banking system (electronic banking).

Electronic banking is particularly well practiced in Austria, Korea, and the Scandinavian countries of Singapore, Spain and Switzerland, where more than 75% of all banks offer such services.

Electronic banking started in the early 1980s both in the United States and the United Kingdom. It really took off with the arrival of the World Wide Web, when traditional banks offered their clients account access online, while some new banks started operating on the Web only. The Banking industry has traditionally operated in a relatively stable environment for decades. However, with the advent of Internet banking, the industry is characterized by dramatically aggressive competition. The shift from traditional branch banking to Internet banking has meant that new strategies to attract new customers and retain existing ones have become critical (Wong, 2005). Electronic Banking allows customers to access banking services 24 hours a day, 7 days a week. Like ATMs, electronic banking empowers customers to choose when and where they conduct their banking transactions (Wong, 2005).

According to Global Finance, electronic banking is not an option but a pre-requisite for all banks due to the growth in technology. Global Finance in 2012, listed Citi bank and HSBC banks as the most prominent banks worldwide using electronic banking in the countries where they have branches. At a world level, electronic banking has greatly grown in Europe, America and some Asian countries which practice is impacting on the customer satisfaction in the banking sector of the world (Daniel, 1999).

According to Federation Deposit Banking Corporation (FDIC), over 73.5% United States consumers by the year 2012 were paying their household bills through online banking while 76% of all French internet users were banking online. This kind of a trend gives a

clear picture for the growth of electronic banking throughout the world which has also positively impacted on customer satisfaction (FDIC, 2012).

Electronic banking in Africa and some parts of Middle East is still lagging behind because of a number of challenges. Such areas lack a wired Internet infrastructure, depending instead on mobile wireless communications which practice has contributed less towards the development of electronic banking in the region. A survey carried out by the African Bank indicate that African banks are far away from achieving a standard electronic banking system because of the challenges faced at the continent like the poor leadership in some countries and unreliable banking policies. Electronic Banking offers different online services like balance enquiry, request for cheque books, recording stop payment instructions, balance transfer instructions, account opening and other form of transitional Banking services (Foley, 2002).

Rwanda's banking sector has evolved over time from a period of financial repression during the 1970s and 1980s to a period of liberalization that started in the late 1980s. The reforms were initiated with a view to addressing major misalignments in the financial sector that were believed to impede economic growth through inefficient performance of the banking sector (Nteli, 2004).

1.1.2 Theoretical perspective

This study based on Disconfirmation theory of consumer satisfaction by Khalifa & Liu, 2002 that suggests that customer satisfaction /dissatisfaction is the disparity that exists between the performance of a product/service and some cognitive or emotional standards of the consumer, such as desire and expectation of customers. If perceived performance exceeds or falls short of expectation or desire, there is positive disconfirmation or negative disconfirmation and the customer is satisfied or dissatisfied respectively.

The exchange of money for products or services rendered in some Banks is just a commercial exchange (Suda, 2001). The odds that the person supplying the products or services looks upon the individual handing the money over as a valuable 'commodity' in and of themselves is very, very rare indeed. The only time the term 'customer service' pops into the head of a supplier is when a customer reaches their breaking point. And that's the problem with Rwandans as a whole. They do not complain consistently. They hold it all in until they reach this 'breaking point', which is usually fascinating in its occurrence if you are blessed enough to be present. It is simply absurd that government-run organizations take customer service more seriously than privately run ones, who one would think need the public's blessings to succeed.

The Banking Industry in Rwanda has seen setbacks though after 1986 it stabilized and many Banking companies came into being. The entry into the market by many firms led to stiff competition which resulted in firms engaging in unethical malpractices in order to beat competition (Clare, 2000). The firms accordingly registered poor performance over the years. Technically, the government of Rwanda has not formally promoted banking activities through any of its organization, including the banking commission.

1.1.3 Conceptual perspective

Daniel (1999) defines electronic banking as the delivery of banks' information and services by banks to customers via different delivery platforms that can be used with different terminal devices such as a personal computer and a mobile phone with browser or desktop software, telephone or digital television.

According to Buras (1995) electronic banking is characterized by the use of data communication networks to establish electronic connections between banks and customers/clients in preparation, management and control of financial transactions.

Ongkasuwan and Tantichattanon (2002) defines Internet banking service as banking service that allows customers to access and perform financial transactions on their bank

accounts from their web enabled computers with Internet connection to banks' web sites any time they wish.

According to Saha and Zhao (2005), customer satisfaction is a collection of outcome of perception, evaluation and psychological reactions to the consumption experience with a product/service. Customer satisfaction is a part of customer's experience that exposes a supplier's behavior on customer's expectation. It also depends on how efficiently it is managed and how promptly services are provided.

Customer satisfaction is a measure of how products and services supplied by a company meet or surpass customer expectation. Customer satisfaction is also defined as "the number of customers, or percentage of total customers, whose reported experience with a firm, its products or its services (ratings) exceeds specified satisfaction goals (Farris, Paul W et.al 2010). And yet another definition of customer satisfaction, it refers to the extent to which customers are happy with the products and/or services provided by a business. Further definition of customer satisfaction is it is a term generally used to measure a customer's perception of a company's products and/or services. It's not a straight forward science however, as customer satisfaction will vary from person to person, depending on a whole host of variables which may be both psychological and physical. The usual measures of customer satisfaction involve a survey with a set of statements using a Likert Technique or scale (Westbrook, 1980).

1.1.4 Contextual perspective

Poor customer satisfaction is a frequent problem in banking institutions in Kigali Rwanda. This is seen when customers are not getting high quality services in respect to their expectations. The electronic banking system of Rwanda is still growing just like in any other developing country with people lining up in long queues to withdraw or deposit money at several bank branches in Kigali. According to the World Bank report (2012), most bank customers in Rwanda are dissatisfied with the way the banking

system in the country gives services to the people and most of them are uncomfortable with the poor customer satisfaction in the county.

Banking industry in Kigali is generally characterized by unsatisfied customers which negatively impacts on customer retention in the banking institutions. Business organizations like banks struggle to compete in the market due to poor customer satisfaction. For example about 70% of the customers in the banks are not satisfied with the way they are served (Machogu, 2015).

1.2 Problem Statement

Electronic banking was adopted by banks so as to improve their service delivery, decongest queues in the banking hall, enable customers withdraw cash 24/7, aid international payment and remittance, track personal banking transaction, request for online statement, or even transfer deposits to a third party account. Despite the effort of banks to ensure that customers reap the benefits of e-banking, the bank is met with complaints from customers as regards, malfunctioning Automated Teller Machines (ATMs), network downtime, online theft and fraud, non-availability of financial service, payment of hidden cost of electronic banking like Short Message Services (SMS), for sending alert, mandatory acquisition of ATM cards, non-acceptability of Rwandan cards for international transaction amongst others. The World Bank report 2012 also emphasises on the existence of this problem. The customers are not committed to the bank, their level of loyalty is low, they are few in number and there is no likelihood of customer referral, all these are indicators that the customers are not satisfied with the services of the bank, (Ruhumuliza David 2011).

The low levels of customer satisfaction in Banks of Kigali Rwanda will affect the performance of the institutions in terms of their profitability hence hindering the expansion of the banks. This study is intended to examine the relationship between electronic banking and customer satisfaction in selected banking institutions in Kigali Rwanda. A previous study conducted by Ruhumuliza David 2011, on the same topic inferred that the level of customer satisfaction was low. The researcher however believes that there have been enormous technological advancements that might trigger a change in the phenomenon. Therefore, adoption is no longer a major issue as far as electronic banking is concerned. This study intends to close the above contextual gap

1.3 Research Objectives

1.3.1 General objective

The researcher investigated the relationship between electronic banking and customer satisfaction in selected Banking institutions in Kigali Rwanda.

1.3.2 Specific objectives

- i. To examine the effect of ATM usage on customer satisfaction in selected Banking institutions in Kigali, Rwanda.
- ii. To establish how electronic funds transfer (EFT) affects customer satisfaction in selected Banking institutions in Kigali, Rwanda.
- iii. To establish how Telephone banking affects customer satisfaction in selected Banking institutions in Kigali, Rwanda.

1.4 Research questions

- i. What is the effect of ATM usage on customer satisfaction in selected Banking institutions in Kigali, Rwanda?
- ii. How does electronic funds (EFT) transfer affects customer satisfaction in selected Banking institutions in Kigali, Rwanda?
- iii. What is the effect of Mobile banking on customer satisfaction in selected Banking institutions in Kigali, Rwanda?

1.5 Hypothesis

There is a significant relationship between electronic banking and customer satisfaction in selected Banking institutions in Kigali, Rwanda.

1.6 Scope of study

1.6.1 Geographical scope

The study was carried out in selected Banking institutions of Kigali Rwanda, whereby it concentrated on bank customers among which were employees, managers and other experts who are knowledgeable about electronic banking.

1.6.2 Content scope

The study examined electronic banking and customer satisfaction, the strengths and weaknesses of these aspects, the relationship between electronic banking and customer satisfaction among selected banking Institutions in Kigali, Rwanda. Electronic banking was measured in terms of ATM usage, electronic funds transfer and Mobile banking, whereas customer satisfaction was measured in terms of customer loyalty, customer feedback and customer knowledge.

1.6.3 Theoretical scope

This study based on the disconfirmation theory of consumer satisfaction by Khalifa & Liu, 2002 which suggests that customer satisfaction /dissatisfaction is the disparity that exists between the performance of a product/service and some cognitive or emotional standards of the consumer, such as desire and expectation of customers. If perceived performance exceeds or falls short of expectation or desire, there is positive disconfirmation or negative disconfirmation and the customer is satisfied or dissatisfied respectively.

1.6.4 Time scope

The study was conducted in the period between May and August 2016

1.7 Significance of the study

The findings of the study will assist the selected banking institutions to identify electronic service quality dimensions that most predict customers' satisfaction, in order to concentrate on them according to their degree of importance.

The study will provide a basis for subsequent researchers to carry out further research in the electronic banking fraternity.

It will also add on the existing knowledge now that the focus is no longer on technology adoption but rather on usage as far as electronic banking in Rwanda is concerned.

1.8. Operational Definitions of Key Terms

Mobile banking. This is a product that offers Customers of a Bank to access services as you go. Customers can make their transactions anywhere such as account balance, transaction enquiries, stop checks, and other customer's service instructions, Balance Inquiry, Account Verification, Bill Payment, Electronic funds transfer, account balances, updates and history, customer service via mobile transfer between accounts (Thomson, 2011).

Electronic banking; this will refer to the delivery of services by the bank to customers via different delivery platforms that can be used with different terminal devices such as a personal computer and a mobile phone with browser or desktop software, telephone or digital television.

Customer satisfaction; this will refer to the evaluation of the perceived discrepancy between prior expectations and the actual performance of the product or service (Erikson, 2012).

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter comprised of the conceptual review, theoretical review and reviews of some of the works of different researchers on the relationship between the study variables.

2.1 Theoretical review

The study was based on Disconfirmation theory of consumer satisfaction by Khalifa & Liu (2002) who suggest that customer satisfaction /dissatisfaction is the disparity that exists between the performance of a product/service and some cognitive or emotional standards of the consumer, such as desire and expectation of customers. If perceived performance exceeds or falls short of expectation or desire, there is positive disconfirmation or negative disconfirmation and the customer is satisfied or dissatisfied respectively.

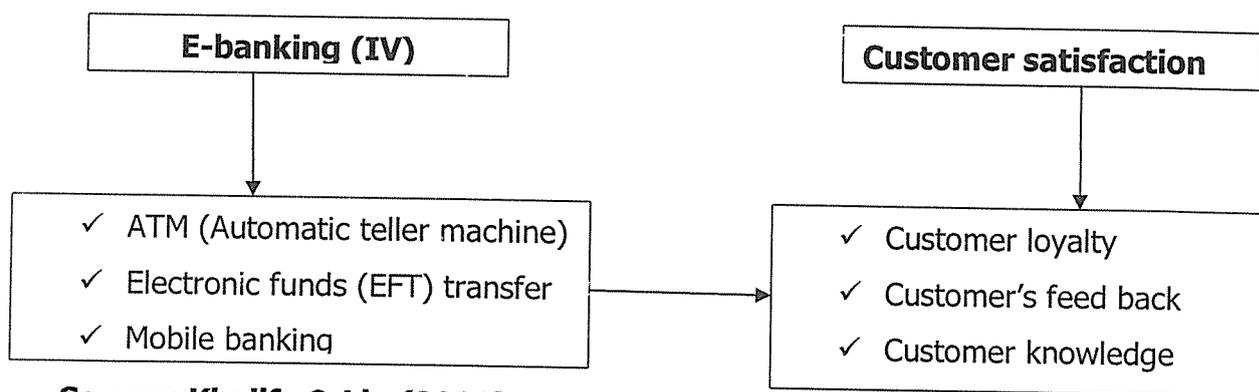
The Disconfirmation theory on consumer satisfaction is about retaining customers and Loyalty remains the key element and it is an intensely practical theory. Satisfaction has been considered as one of the most important theoretical as well as practical issues for most marketers and customer researchers (Jamal, 2004). Oliver (1999, p. 29) firstly referred to it in the consumption context as the summary psychological state resulting when the emotion surrounding disconfirmed expectations is coupled with the customer's prior feelings about the consumption experience. In other words, we may say that satisfaction reflects a post-purchase evaluation of product quality given pre-purchase expectations (Kotler, 1991).

On one hand, customer satisfaction has traditionally been regarded as a cognitive-based phenomenon (Westbrook, 1987). Cognition has been studied mainly in terms of the expectations/disconfirmation paradigm; also known as the confirmation/disconfirmation paradigm, which states that expectations originate from the customer's beliefs about the level of performance that a product/service would

provide (Oliver, 1980). Many marketing scholars (Anderson and Sullivan (1997) indicate that customer satisfaction is related to the size and direction of disconfirmation, which is shown as the difference between the post-purchase and post-usage evaluation of the performance of the product/service and the expectations held prior to the purchase (Sharma and Ojha, 2004). On the other hand, other studies (Dube-Rioux, 1990; Homburg et al, 2006) have recognized that the affect experienced during the acquisition and consumption of the product or service can also have a significant influence on satisfaction judgments (Homburg et al, 2006). Dube-Rioux (1990) points out that a consumer affective response can be used to predict satisfaction more accurately than cognitive evaluation.

2.2 Conceptual Framework

A Conceptual framework showing the relationship between E-banking and Customer satisfaction



Source: Khalifa & Liu (2002)

A conceptual framework in figure 1 illustrates that e-banking influences the level of customer satisfaction. E-banking was conceptualized/ broken into small constructs such as use of ATM, electronic funds transfer and mobile banking. Customer satisfaction was conceptualized in terms of customer loyalty, feedback and customer knowledge. The framework still illustrates that e-banking directly affects the level of customer satisfaction. However the relationship can be modified by nature of Government policies, level of technology and economic climate.

2.3 Literature review

Electronic banking

Electronic banking is simply the use of electronic means to transfer funds directly from one account to another, rather than by check or cash. Clients use modern communication media for remote communication with the bank: a modem, telephone, computer or payment card. A characteristic feature of these services is the client's uninterrupted round-the clock account access, which is, independent of banking business hours and the ability to execute local and international payments directly from the comfort of the home or office. This reduces cash handling and transport costs, lowers the risk of theft or accepting counterfeit bank notes, it increases speed and enhances the comfort of making payments (Cronin & Mary, 1997).

Customers have doubts about the trust ability of the e-bank's privacy policies (Gerrard and Cunningham, 2003). Trust has striking influence on user's willingness to engage in online exchanges of money and personal sensitive information (Friedman et al, 2000; Wang et al, 2003). Privacy is an important dimension that may affect users' intention to adopt e-based transaction systems. Encryption technology is the most common feature at all bank sites to secure information privacy, supplemented by a combination of different unique identifiers, for instance, a password, mother's maiden name, a memorable date, or a few minutes of inactivity automatically logs users off the account. (Hutchinson and Warren, 2003).

Zeithaml et al (2000) developed e-SERVQUAL for measuring e-service quality, identifying 11 dimensions: access; ease of navigation; efficiency; flexibility; reliability; personalization; security/privacy; responsiveness; assurance/trust; site aesthetics; and price knowledge. Hence, it is hypothesized that privacy has a positive effect on customer satisfaction.

Accessibility defines as the ability of users to access information and services from the web is dependent on many factors. These include the content format; the user's

hardware, software and settings; internet connections; the environmental conditions and the user's abilities and disabilities (Godwin-Jones 2001; Hackett and Parmanto, 2009). Web accessibility generally relates to the implementation of website content in such a way as to maximize the ability of users with disabilities to access it. For example, providing a text equivalent for image content of a web page, allows users with some visual disabilities access to the information via a screen reader. The techniques and approaches that create more accessible web pages for people with disabilities also address many other access issues such as download speed and discoverability (Godwin-Jones 2001; Hackett et al, 2004; Hackett and Parmanto, 2009).

Jun et al (1999) revealed reliable/prompt responses, attentiveness, and ease of use had considerable impacts on both customers perceived overall service quality and satisfaction. It also indicated that there is a significant positive relationship between overall service quality and satisfaction. Yang and Jun (2002) redefined the traditional service quality dimensions in the context of online services, and suggested an instrument consisting of seven online service dimensions (reliability, access, ease of use, personalization, security, credibility, and responsiveness).

Burras (1995) defined electronic banking as the process whereby the customer is able to access, control and use his/her account over the Internet. According to Burras (1995) electronic banking is characterized by the use of data communication networks to establish electronic connections between banks and customers/clients in preparation, management and control of financial transactions. With financial institutions, technologies like direct deposit, automated teller machines and credit/debit cards have been the key investments and innovations. He however observed that these innovations and creations need an environment that is customer friendly and likely to improve on their satisfaction. He noted that in a clientele world, the customer is the king so if these technologies are meant to improve on customer satisfaction, electronic banking possess a better future (Burras, 1995).

The concept of electronic banking has been also defined in many ways; Daniel (1999) defines electronic banking as the delivery of banks' information and services by banks to customers via different delivery platforms that can be used with different terminal devices such as a personal computer and a mobile phone with browser or desktop software, telephone or digital television.

In addition, Ongkasuwan and Tantichattanon (2002) further noted that internet (electronic) banking service is a banking service that allows customers to access and perform financial transactions on their bank accounts from their web enabled computers with internet connection to banks' web sites any time they wish. Internet banking service also enables bank customers to perform transactions such as transfer and payments, access of latest balance, statement viewing, account detail viewing, customization, print, downloading of statements and obtaining a history statement on all accounts linked to the banks customers' Auto Bank (ATMs). According to Khan (2007), Internet (electronic) banking includes the system that enables financial institution customers, individuals or businesses, access accounts, transact business, or obtain information on financial products and services on public or private network including Internet. Internet (electronic) banking is the act of conducting financial intermediation on the Internet (Kim, 2006).

According to Foley (2000), automated teller machines work 24 hours a day, and are located in many different places especially in the most populated places, which makes them easy to find. Using an ATM requires an ATM card and a personal PIN allowing customers secure 24 hour access to banking services such as deposits, withdrawals, transfers, inquiries about account balances, requests for cheque books, account statements, direct deposits among others. Electronic communication means are particularly coming to the forefront. These are more convenient, faster, and often cheaper for clients. Banking experience shows it is suitable to use combinations of several communication means, depending on individual segments, clients, and types of

operations, products and situations. Electronic banking is a service that specifically uses electronic communication forms. Electronic banking can be divided on the basis of the instruments used: telephone connection, personal computers, means of payment (bank cards) and self service zones Forms of electronic banking (Foley, 2000).

ATM Banking

ATM banking is an Automated Teller Machine commonly called a cash point in UK English after the trade mark of the same name, is defined as a computerized telecommunications device that provides the clients of a financial institution with access to financial transactions in a public space without the need for a cashier, human clerk or bank teller. ATMs are known by various other names including automatic banking machine, cash machine, and various regional variants derived from trade marks on ATM systems held by particular banks, (Encyclopedia, 2011).

On most modern ATMs, the customer is identified by inserting a plastic ATM card with a magnetic stripe or a plastic smart card with a chip that contains a unique card number and some security information such as an expiry date or CVV among others. Authentication is provided by the customer entering a personal identification number (PIN). Using an ATM, customers can access their bank accounts in order to make cash withdrawals, credit card cash advances, and check their account balances as well as purchase prepaid cell phone credit.

Payne (2002) noted that SMS banking uses short text messages sent through the client's mobile phone, SMS text messages can be used for both passive and active operations similarly as with classic telephone banking. A client can automatically receive information about his account balance: an SMS is sent to the client immediately after a certain operation is performed, or on request: a client sends the bank a correctly formatted message which processes it and answers the client's request by SMS. Information sent on request mostly concerns current interest rates or currency exchange rates. Providing these is simple for the bank because this is publicly

accessible information that needs no protection. A client however can request information about the balance in his account, which is not public information and must be protected when it is provided. Passwords are used for this purpose or technologies based on the principle of an electronic key. A client however is required to know the code of every transaction including constant and variable symbols (Payne, 2002).

Customer satisfaction

E-banking provides higher degree of convenience that enables customers to access internet bank at all times and places. Apart from that, the ease of access of computers is perceived as a measure of relative advantage (Daniel, 1999, Black et al, 2001; Polatoglu and Ekin, 2001; Gerrard and Cunningham, 2003). However, Johnston (1995) had revealed that there are some service quality determinants that are predominantly satisfiers and others that are predominantly dissatisfies with the main sources of satisfaction being attentiveness, responsiveness, care and friendliness. The main sources of dissatisfaction are integrity, reliability, responsiveness, availability and functionality.

Gerrard and Cunningham (2003) also identify other factors of paramount importance in ensuring the success of e-banking, like the ability of an innovation to meet users' needs using different feature availability on the web site. For instance, the provision of interactive loan calculators, exchange rate converters, and mortgage calculators on the web sites draw the attention of both users and non-users into the bank's web site. A UK study uncovered five key service quality attributes, such as security related issues, convenience, speed and timeliness of the service, and product variety/diverse features (White and Nteli, 2004). Therefore, it is hypothesized that convenience has positive effect on customer satisfaction.

According to Tomiuk and Pinsonneault (2001), it was found that electronic banking usage had a considerable effect on customer loyalty among the electronic

banking users, while it had a negative impact on non-users. It was concluded that customer care and customer retention should be taken into consideration, because the convenient, easy and fast banking services is associated with the human and technology based delivery processes so that they are linked with the customers' perceptions of how these bank services are delivered to them.

Al-hawari and Ward (2005) indicated that internet banking is positively related to customer retention. Boateng and Molla (2006) contend that operational constraints related to customer location, the need to maintain customer satisfaction and the capabilities of the Bank's main software are influential factors in motivating the decision to enter electronic banking services and consequently influencing the usage experience and thus affecting the level of satisfaction. Raman et al. (2008) said that service as an intangible good appeal differently to each customer and certain extent of service should be achieved in order to satisfy the customer and that the resulting commitment, loyalty and retention are critical indicators of customer satisfaction . Customer commitment; Power and Associates (2009) note that on average, highly committed customers use more products or services, give more referrals and are much less likely to switch to another bank, compared with customers who have lower commitment levels. Indeed, this view is supported by Casaló et al (2008) who contends that higher levels of website usability might lead to higher levels of consumer's affective commitment to the website as well a direct, positive and significant relationship between satisfaction in previous interactions and the consumer's commitment to a financial services website.

According to Saha (2005), customer satisfaction is defined as a collection of outcome of perception, evaluation and psychological reactions to the consumption experience with a product/service. In other words, Saha further defined customer satisfaction as a result of a cognitive and affective evaluation where some comparison standard is compared to the actually perceived performance. If the performance perceived is less than expected, customers will be dissatisfied. On the other hand, if the

perceived performance exceeds expectations, customer will be satisfied. Boateng and Molla (2006) contend that operational constraints related to customer location, the need to maintain customer satisfaction and the capabilities of the Bank's main software are influential factors in motivating the decision to enter electronic banking services and consequently influencing the usage experience and thus affecting the level of satisfaction. Raman (2008) said that service as an intangible good appear differently to each customer and certain extent of service should be achieved in order to satisfy the customer and that the resulting commitment, loyalty and retention are critical indicators of customer satisfaction.

Customer satisfaction is defined as an "evaluation of the perceived discrepancy between prior expectations and the actual performance of the product. Satisfaction of customers with products and services of a company is considered as most important factor leading toward competitiveness and success (Hennig-Thurau and Klee, 1997). Kim, Park and Jeong (2004) however says that customer satisfaction is customer's reaction to the state of satisfaction, and customer's judgment of satisfaction level. Customer satisfaction is very important in today's business world as according to Deng et al., (2009) the ability of a service provider to create high degree of satisfaction is crucial for product differentiation and developing strong relationship with customers (Lynch and Ariely, 2000).

Previous researchers have found that satisfaction of the customers can help the brands to build long and profitable relationships with their customers (Eshghi, Haughton and Topi, 2007). Though it is costly to generate satisfied and loyal customers but that would prove profitable in a long run for a firm (Anderson, Fornell and Mazvancheryl, 2004). Therefore a business organization should concentrate on the improvement of service quality and charge appropriate fair price in order to satisfy their customers which would ultimately help the firm to retain its customers (Gustafsson, Johnson and Roos, 2005).

Customer loyalty

Customer loyalty in the behavioural approach has often been construed as repeat purchase frequency. Cunningham assesses customer loyalty based on the proportion of money that a customer spends with purchases from a single supplier. In the attitudinal approach, a loyal customer must have strong "attitudinal commitment" to a brand (Aladwani, 2001). Power and Associates, (2009), define customer loyalty as a deeply held commitment to frequently re-buy or patronize the same product or service. Further, Power and Associates, (2009), in Wangenheim and Bayon, (2004), though that loyalty is multidimensional and includes re-buy, repurchasing and resistance towards price increases.

According to Michael, (2007), in a business context, loyalty equates to a willingness to sacrifice on the part of the customer: a loyal customer may forego a lower-cost solution from a competitor or give you time to improve capabilities because they value other aspects of doing business with you. Michael, (2007) further asserted that enormous amounts of resources have been sent by banks in measuring and improving customer satisfaction, but satisfaction alone does not imply loyalty. Michael, (2007) concluded that customers who are loyal believe the bank acts in their best interest on regular basis and advocates. The key to realizing the value of loyalty is in developing customers who are so committed to you and are willing to encourage others to do business with you.

2.4 Related Studies

A study conducted by Hwang (2001) examined the impact of customer satisfaction on customers' behavioral responses, and the findings of the study indicated that when customers assessed customer satisfaction to be high, they either decided to stay with the existing service provider or subdue their negative behavioral intentions. Customer satisfaction is also found to have strong positive association with word-of-mouth communication. The research results confirm prior research and indicate that the

customer satisfaction dimensions are not industry specific, but also country specific. The authors suggest developing strategies to enhance behavioral responses to customer satisfaction and prohibit negative ones. Such strategies can include meeting customers desired service levels, preventing service problems from occurring, dealing effectively with dissatisfied customers, solving service problems effectively when they occur and dealing with customer complaints positively.

A study by Kumbhar (2011) on customer satisfaction towards E-banking services of ICICI bank in Chennai City, India which considered factors affecting customers' satisfaction: an empirical investigation of ATMs service and examined that the cost effectiveness of ATM service were core service quality dimension and it was significantly affecting on overall customer satisfaction in ATM services provided by commercial banks. However, result of factor analysis indicates that cost effectiveness, ease of use and security & responsiveness also influence customer satisfaction. Therefore, banks should concentrate their efforts on these dimensions to cater for better ATM service to satisfy their customers.

Hazra et.al (2011) attempted to examine a contribution of various dimensions of service quality in customers' satisfaction. A result of the study indicates that, all 13 variables were found significant and were good predictors of overall satisfaction in e-banking. However, A result of principle component analysis indicates that, perceived value, brand perception, cost effectiveness, ease of use, convenience, problem handling, security/assurance and responsiveness are important factors in customers' satisfaction in e-banking. Contact facilities, system availability, fulfillment, efficiency and compensation are comparatively less important. Responsiveness, ease of use, cost effectiveness and compensation are predictors of brand perception in e-banking and fulfillment, efficiency, security/assurance, responsiveness, convenience, cost effectiveness, problem handling and compensation are predictors of perceived value in e-banking. Therefore, banker and e-banking service designers should think over these

dimensions and make possible changes in the e-banking services according to the customers' expectations and need of the time. It will help to enhance service quality of e-banking and increase the level of customers' satisfaction in e-banking.

Nakanjakko (2012) talked about electronic banking system and consumer satisfaction in Rwanda especially commercial banks. Her findings revealed that electronic banking has satisfied most clients' banking needs, most bank clients enjoy using e-Banking, this results into a high level of satisfaction. The few break downs in ATM machines and the long queues lowers the level of satisfaction. Findings revealed that there is a weak positive relationship between Electronic banking and customer satisfaction. The Pearson's correlation between Electronic banking and customer satisfaction stood at 38.8% which is a weak direct relationship between the two variables. It is therefore true to say that Electronic banking has a significant effect on customer satisfaction.

Speece (2003) noted that service quality attributes in e-banking industry are important since human-internet interaction is the main service delivery and communication channel. Offering high quality services to satisfy consumers' needs, at lower costs, are potential competitive advantage of e-banking. Cost savings have helped e-based banks offer lower or no service fees, and offer higher interest rates on interest-bearing accounts than traditional banks (Gerlach, 2000; Jun and Cai, 2001). Therefore, it is hypothesized that fees and charges have positive impact on customer satisfaction.

Jayawardhena and Foley (2000) and Pikkarainen et al (2004) claim that content on online banking on the web site is one of the factors influencing online-banking acceptance. On the other hand, quality designs, graphics or colors and the propensity to portray good image of the bank would enhance efficient use of navigation. In the context of internet banking, there is a growing body of research that has looked at influences on customer satisfaction. Jayawardhena and Foley (2000) illustrated that

such web site features as speed, web site content and design, navigation, interactivity and security all influence user satisfaction whereas Broderick and Vachirapornpuk (2002) found that the level and nature of customer participation had the greatest impact on the quality of the service experience and issues such as customers' zone of tolerance, the degree of role understanding by customers and emotional response potentially determined, expected and perceived service quality.

Research gaps

Theoretical gap;

The theory did not talk about the relationship between electronic banking and customer satisfaction. The theory did not focus on e-banking services' effects on customer satisfaction, and that is why the researcher intended to study electronic banking and customer satisfaction to find out the relationship and to fill the gap. Whereas the previous studies focused more on the E-banking adoption, that is no longer a question because the adoption level is reasonable now. And that is why this study intends to close this contextual gap.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter entailed the methodology that was used in conducting the research. It consisted of the research design, the study population, the sampling procedure and sample size, the variables and their measurements, reliability and validity of research instruments, data collection methods, data processing and analysis procedures and techniques.

3.1 Research Design

The study used a descriptive correlation research design. This is because it dealt with the relationship between electronic banking and customer satisfaction, testing of hypothesis and developments of generalization and use of theories that have universal validity. Descriptive study offered the researcher a description of relevance aspects of the phenomena of interest (Kassin, 2001). It also adopted both quantitative and qualitative approaches which focused on describing and drawing inferences from the findings on the relationships between electronic banking and customer satisfaction.

3.2 Target Population

The study population comprised of 1000 respondents, which were drawn from bank customers of the selected five banks, and these Banks include Bank of Kigali CSS Zigama, Banque Populaire, KCB Bank and Equity Bank. The researcher chooses these banks mainly because they are the ones at the forefront of embracing technology in banking more specifically electronic banking.

3.3 Sample Size

From the population of 1000, 285 were considered as representative members to actually take part in the study. This number was arrived at by use of the Slovene's formula as shown hereunder;

$$n = \frac{N}{1 + N(e^2)}$$

Where: n=sample size

N=target population

e=level of significance/marginal error (0.05)

$$\begin{aligned}
 n &= \frac{N}{1 + N(e^2)} \\
 &= \frac{1000}{1 + 1000(0.0025)} \\
 &= \frac{1000}{1 + 2.5} \\
 &= \frac{1000}{3.5}
 \end{aligned}$$

$$n = 285$$

Table 3.3 below gives the selected overview of the population and sample size.

Table 3.3: Respondents of the Study from each bank

No	Banks	Target population	Sample size
1	Bank of Kigali	227	65
2	CSS zigama	190	54
3	Banque Populaire	180	51
4	KCB Bank	195	56
5	Equity Bank	208	59
	Total	1000	285

Source: Rwanda Ministry of trade and commerce (2014)

3.4 Sampling Procedure

The main sampling technique that was used in this study is systematic random sampling. Using this method, a list of the employees was compiled. In selecting the

respondents, two consecutive respondents were selected while skipping the next one respondent and selecting the next two all over again until the sample size was met. This sampling technique was employed because it is simple and prevents cases of bias in sampling. It was applied on bank customers.

3.5 Data collection methods/ Instruments

3.5.1 Questionnaires

Questionnaires were developed and designed in the most understandable way by the respondents with simple language, simple questions that will easily be answered without consuming much time of the respondents. These were used mainly to gather primary data where respondents will be expected to react usually in writing and return them with filled answers for analysis and making of conclusions by the researcher. Questionnaires were used because they are reliable and from the targeted respondents. They are easy to interpret and easily edited for the purpose of making final decisions. They also raise relevant information to the study since the respondents were basically guided by the questionnaires. The answering options on a Likert's scale, that ranged from 1= strongly disagree to 4 = strongly agree were used to make the questionnaire easy to fill.

3.5.2 Interviews

The interview method was used to collect key information about the study from key respondents who were the bank customers. The respondents were asked questions included to elicit opinions on the subject matter. This aimed at collecting information that could not be put down in writing.

3.6 Validity and reliability of the instrument

3.6.1 Validity

The researcher consulted his supervisor for expert knowledge on questionnaire design. After the assessment of the questionnaire, the necessary adjustments were made

bearing in mind the objectives of the study. The formula that was used to determine the validity of the instrument is;

CVI = no of items declared valid

Total no of items

CVI= 21/24

=0.875 (87.5%)

According to Amin (2005), if this index is equal to or above 0.7 (70%), the instrument is declared valid.

3.6.2 Reliability

Reliability of the instrument was established through a test-retest technique. The researcher conducted a pre-test of the instrument on group of subjects and waited for a week then administered the same test again to the same subjects for the second time. Cronbach's alpha was also used to determine the reliability of the instruments. The formula for determining the alpha is indicated below;

$$\alpha = \frac{k}{k-1} * \frac{1 - \sum s^2}{S^2_{test}}$$

Cronbach's Alpha

Where

k = number of questions

$\sum s^2$ = sum of variances from each questions

s^2 test = total variance of overall scores on the entire test

Table 3.7.3 showing reliability test result

Constructs	Cronbach's alpha	Number of items
ATM	0.97	4
Electro-funds transfer	0.99	4
Mobile bankinf	0.98	5
Customer feedback	0.99	3
Customer knowledge	0.97	4
Customer loyalty	0.98	4
	0.98	24

3.7.1. Before the administration of the questionnaires

An introduction letter was obtained from the College of Economics and Management (CEMS) for the researcher to solicit approval to conduct the study from respective management of the various banks that were visited. After approval, the researcher secured lists of the qualified respondents from the in charge and selected through systematic random and purposive sampling. This led the researcher to arrive at the minimum sample size. The respondents were briefed about the study and requested to sign the Informed Consent Form. The researcher then produced over 240 copies of the questionnaire which were distributed to the various respondents.

3.7.2. During the administration of the questionnaires

Specifically, the researcher requested the respondents the following: (1) to sign the informed consent; (2) to answer completely all questions and not to leave any item of the questionnaires unanswered; (3) to avoid biases and to be objective in answering the questionnaires. Some respondents were guided on what to do by the researcher and as such, some questionnaires were retrieved on spot, while others were retrieved after some days or weeks.

3.7.3. After the administration of the questionnaires

On return, the researcher edited and entered the questionnaire responses into the Computer using SPSS software, for further processing and analysis. Finally, a report was prepared and after approval from the supervisor, the final copy was submitted to CEMS for final examination.

3.8 Data Analysis

In line with the research design, the analysis of data was mainly be quantitative (that is statistical), and computer aided (using SPSS) and was in three levels; Uni-variate, bi variate and multi-variate. At the uni-variate level, the study utilized simple statistics (mainly frequency counts and arithmetic means), while at bi-variate level, correlation analysis was utilized. At multi-variate level, the study opted for multiple linear regression analysis for establishing the influence of the independent variable on the dependent variable. The main analysis was done objective by objective testing the hypotheses simultaneously; all the three objectives were analyzed using Pearson's linear correlation coefficient (PLCC). Parsons' Linear correlation coefficient was used to test the hypothesis on correlation at a 0.05 level of significance. The regression analysis R^2 (coefficient of determination) was computed to determine how electronic banking affects customer satisfaction. Qualitative data was analyzed using the themes underlying the question items.

Means, ranks, standard deviation and the coefficient of variation were used to determine the behavior on electronic banking and on the level of customer satisfaction. Objective one, two and three; A multiple correlation coefficient (Pearson) to test the hypothesis (H_0) was employed, and at 0.05 level, the relationship would be significant.

Table 3.9 The Likert scale for interpretation of means

Mean Range	Response Mode	Interpretation
3.26-4.00	Strongly agree	Very satisfactory
2.51-3.25	Agree	Satisfactory
1.76-2.50	Disagree	Unsatisfactory
1.00-1.75	Strongly disagree	Very unsatisfactory

3.10 Ethical Considerations

To ensure confidentiality of the information provided by the respondents and to ascertain the practice of ethics in this study, the following activities were implemented by the researcher:

All questionnaires were coded to provide anonymity of respondents' responses.

Permission was sought through a written request to the concerned officials of the Banks included in the study.

Respondents were requested to sign the Informed Consent Form.

No respondent was threatened or coerced to participate.

Authors quoted were fully recognized through citation and referencing.

Presentation of the findings will be in a generalized manner.

CHAPTER FOUR

PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

4.0 Introduction

This chapter presented the analyzed data and interpretations made there of following the study objectives. It specifically showed data on profile of respondents, electronic banking, customer satisfaction, the effect of ATM usage on customer satisfaction in selected Banking institutions in Kigali Rwanda. It also showed how electronic funds transfer affects customer satisfaction in selected Banking institutions in Kigali, Rwanda, and how mobile banking affects customer satisfaction in selected Banking institutions in Kigali Rwanda.

4.1 Profile of Respondents

Respondents in this study were described according to their age, gender, level of education qualification and work experience. In each case, respondents were asked using a questionnaire to provide their respective profile information to enable the researcher classify and compare them accordingly. Their responses were analyzed using frequencies and percentage distributions as summarized in table 4.1 below;

Table 4.1: Profile of respondents

Category	Frequency	Percent
Gender		
Male	180	63
Female	105	37
Total	285	100
Age		
20 – 30 years	76	27
31 – 40 years	94	33
41 – 50 years	78	27
51 and above years	37	13
Total	285	100
Education qualification		
Certificate	39	14
Diploma	68	24
Bachelor	82	29
Masters	66	23
PH.D	30	10
Total	285	100
Banking experience		
Less than one year	66	23
1 - 3 years	99	35
4 - 6 years	71	25
7 - 9 years	26	9
10 Years and above	23	8
Total	285	100

Source: Primary data, 2016

The results from the above table indicated that majority of respondents in this sample were male (63%) and female respondents were 37%. This therefore implies a gender gap among customers of banks in Kigali Rwanda. The results of the study showed that 27% of the respondents were less than 20-30 years, while 33% were between 30-40 years, 27% were 40-50 years, and also finally 13% of the respondents were 51 years and above, this therefore implied that majority of respondents in this sample were in their middle adulthood. With respect to education background, 14% of the respondents were certificate holders, 24% of respondents were diploma holders, 29% of the respondents were bachelors 'degrees holders, 23% were master's degree holders and finally 10% of the respondents were PhD holders. This implies that the majority of respondents in this sample were relatively qualified in academics. With respect to banking experience 23% of the respondents had worked less than one year, 35% had an experience of 1 to 3 years, 25% of the respondents had an experience for 4-6 years, 9% had an experience 7 to 9 years, while 83% of the respondent had an experience of 10 years and above in the same field, hence implying that the respondents in this sample were relatively experienced in this same field of E-banking.

4.2 Electronic banking

The independent variable in this study (electronic banking) was broken into three constructs and these were; ATM (Automatic Teller Machine) (measured with four questions or items), electronic funds transfer (measured with four items) and telephone banking (with four questions or items). All these questions were based on a four point Likert scale, in which respondents were required to show the extent to which they agree or disagree with each question or item. The SPSS software was used to analyze their responses using means and ranks as indicated in table 4.2.

Table 4.2: Electronic banking

Items on electronic banking	Mean	Interpretation	Rank
ATM (Automatic Teller Machine)			
You always use ATM card when depositing and withdrawing money	2.62	Satisfactory	1
All your bank ATM machines located in Kigali Rwanda work 24 hours	2.51	Satisfactory	2
The ATM machines of your Bank are also located remote areas of Kigali	2.47	Unsatisfactory	3
You have all the knowledge and skills of using ATM machines	2.35	Unsatisfactory	4
Average mean	2.48	Unsatisfactory	
Electronic funds transfer			
You always find it easy to transfer money from one account to another	3.04	Satisfactory	1
There are charges imposed to customers by the bank when transferring money from one account to another	2.48	Unsatisfactory	2
Your bank provides electronic funds transfer services 24 hours	2.17	Unsatisfactory	3
The bank always emphasizes its customers to choose electronic funds transfer because of saving time	1.53	Unsatisfactory	4
Average mean	2.31	Unsatisfactory	
Mobile banking			
The mobile banking system provides high degree of convenience to customers	2.69	Satisfactory	1
Many customers have always managed to carry out mobile banking after being trained by the Bank	2.52	Satisfactory	2
The use of mobile banking system is reliable to all groups of customers	2.09	Unsatisfactory	3
The mobile banking is always error free	1.61	Very unsatisfactory	4
Average mean	2.23	Unsatisfactory	
Overall mean	2.34	Unsatisfactory	

Source: Primary data, 2016

Key to interpretation of means

Mean range	Response range	Interpretation
3.26 - 4.00	Strongly agree	Very satisfactory
2.51 - 3.25	Agree	Satisfactory
1.76 - 2.50	Disagree	Unsatisfactory
1.00 - 1.75	Strongly disagree	Very unsatisfactory

Results in table 2 indicated that the extent of electronic banking is generally unsatisfactory and this was indicated by the overall mean of 2.34, implying that the financial Banks in Kigali, Rwanda don't allow their customers to conduct financial transactions electronically on a secured website operated by the institution, which can be a retail bank, virtual bank, credit union or building society. Results further indicated that the extent of electronic banking differs on different items and in different perspectives; for example, regarding ATM (Automatic Teller Machine), the respondents rated this construct as generally unsatisfactory (average mean=2.48), implying that majority that few bank customers have the knowledge and skills of using ATM machines.

With respect to electronic funds transfer; results in Table 2 indicated that of the four items used to measure the extent of electronic funds transfer among banking institutions in Kigali Rwanda, only two items were rated unsatisfactory and two were rated satisfactory. However, the average mean of 2.31, falls under unsatisfactory on the interpretation scale, implying that the customers of banking institutions in Kigali don't always emphasize their customers to choose electronic funds transfer because of being unstable. Concerning Telephone banking; on average this construct was rated unsatisfactory and this was indicated by the average mean of 2.23, hence implying that the Telephone banking system does not provide high degree of convenience to customers.

With respect to the responses got from the interview guide, 12 respondents in this study were asked to explain the main reasons why they prefer electronic banking services and had this say *"because I have less time to spend on activities such as visiting a bank and therefore want a higher degree of convenience and accessibility"*. They also added that *"mainly there is convenience of the service (time saved and globally accessible service), lower cost of transaction and more frequent monitoring of accounts among others, there is increased comfort and time-saving where transactions can be made 24 hours a day without requiring the physical interaction with the bank"*

4.3 Customer satisfaction

In this study, customer satisfaction is the dependent variable and was broken into three parts and these are; customers' feedback (with four items), customers' knowledge (with 4 questions in the questionnaire) and customer loyalty (with four questions in the questionnaire). All these questions were based on a four point Likert scale and respondents were asked to rate the extent to which customer satisfaction is high or low by indicating the extent to which they agree or disagree with each question or item. Their responses were analyzed using SPSS and summarized using means and ranks as indicated in table 4.3 below;

Table 4.3: Customer satisfaction

Items on customer satisfaction	Mean	Interpretation	Rank
Customers' feed back			
This bank without delay responds to clients' problems, suggestions, and complaints.	2.49	Unsatisfactory	1
This bank actively responds to customers' enquiries of its services.	2.41	Unsatisfactory	2
This bank uses phone calls, e-mails, and personnel visits to communicate with customers.	1.85	Unsatisfactory	3
Average mean	2.25	Unsatisfactory	
Customers' knowledge			
The bank has different means of teaching customers about new products/ services.	2.68	Satisfactory	1
The practice of flexibility always depends on customers' knowledge and requirements.	2.51	Satisfactory	2
The bank actively solves the problem of customers' ignorance regarding e-banking services.	1.66	Very unsatisfactory	3
This bank is able to use customers' ideas to develop a new product.	1.35	Very unsatisfactory	4
Average mean	2.05	Unsatisfactory	
Customer loyalty			
The bank provides a direction to the customers as in where they can access services depending on location.	2.47	Unsatisfactory	1
You are satisfied by the staff about new innovations and creativity made in the Bank so that you are served better.	2.37	Unsatisfactory	2
The bank always provides reliable information to the customers	1.55	Very unsatisfactory	3
This bank can be a point of reference according to your services	1.41	Very unsatisfactory	4
Average mean	1.95	Unsatisfactory	
Overall mean	2.13	Unsatisfactory	

Source: Primary data, 2016

Results in table 4.3 indicated that the extent of customer satisfaction is generally rated unsatisfactory and this was indicated by the overall mean of 2.13, implying that the banking institutions in Kigali Rwanda always provide electronic banking services which don't meet customers' expectations which in turn leads to low levels of company loyalty and product repurchase.

Regarding customers' feedback- four items were used to measure this variable and respondents were asked whether they agreed with the statements. Responses indicated that customers' feedback was rated unsatisfactory on average (mean=2.25), implying that the banking institutions in Kigali Rwanda rarely respond to clients' problems, suggestions and complaints as early as possible.

With respect to customers' knowledge; results in table 2 indicated that four items were used to measure this construct and it was also rated unsatisfactory on average and this was indicated by the average mean of 2.05, hence indicating that the banking institutions in Kigali Rwanda always don't use customers' ideas to develop a new product.

Customers loyalty; results in table two indicated that customers loyalty as the third construct on the independent variable was measured using four items (questions) and it was rated satisfactory on average (mean=1.95), implying that the banking institutions in Kigali Rwanda always don't provide a direction to the customers as in where they can access services depending on location.

"With respect to the responses got from the interview guide, some of the key informants in this study were asked to explain the challenges they always face while accessing electronic banking services in their corresponding banks and they had this say "Absence of well trained and professionally qualified banking staff, the offensive and poor attitude and behavior on the banks staff in their dealings with actual and potential customers, there is also inadequate facilities and equipment required to provide modern

banking services, absence of frequent training programs for the staff to shape up their attitude towards customers, and lastly unduly long processes in responding to customer's needs"

4.4 Objective one; examining how ATM usage affects customer satisfaction

The first objective in this study was to examine how ATM usage affects customer satisfaction in Selected banking institution in Kigali Rwanda. Here, the researcher had to establish the relationship between ATM usage and customer satisfaction in Selected banking institutions in Kigali Rwanda. To test this null hypothesis, the researcher correlated the mean indices on ATM usage and those on customer satisfaction using the Pearson's Linear correlation Coefficient (PLCC) and results are indicated in table 4.4 below;

Table 4.4: Pearson correlation between ATM usage and customer satisfaction

Variables Correlated	r-value	Sig	Interpretation	Decision on Ho
ATM usage Vs Customer satisfaction	.624	.000	Significant Correlation	Rejected

Source: Primary Data, 2016

The Pearson's Linear correlation Coefficient (PLCC) results in table 4.4 indicated that ATM usage has a significant relationship on customer satisfaction in Selected banking institution in Kigali Rwanda, since the sig. value (0.000) was far less than 0.05, which is the maximum level of significance required to declare a significant relationship in social sciences. Therefore this implies that ATM usage significantly affects customer satisfaction in Selected banking institution in Kigali Rwanda. Basing on these results the

stated null hypothesis was rejected and confirming that satisfying ATM usage increases customer satisfaction in Selected banking institution in Kigali Rwanda.”

4.5 Objective two; establishing how electronic funds transfer affects customer satisfaction

The second objective in this study was to assess how electronic funds transfer affects customer satisfaction in Selected banking institution in Kigali Rwanda. Therefore to achieve this objective and to test this null hypothesis, the researcher correlated the means on both variables by using the Pearson's Linear Correlation Coefficient as indicated in table 4.5;

Table 4.5: Pearson’s correlation between electronic funds transfer and customer satisfaction

Variables correlated	r-value	Sig	Interpretation	Decision on Ho
Electronic funds transfer Vs Customer satisfaction	.457	.000	Significant correlation	Rejected

Source: Primary Data, 2016

Results in table 4.5 indicated that electronic funds transfer is significantly affects customer satisfaction in Selected banking institution in Kigali Rwanda, since the sig. value (0.000) was less than 0.05 which is the maximum level of significance required to declare a significant relationship in social sciences, here the stated null hypothesis was rejected basing on these results and hence implying that improvement in electronic funds transfer increases customer satisfaction in Selected banking institution in Kigali Rwanda.

4.6 Objective three; establishing how mobile banking affects customer satisfaction

The third objective in this study was to examine how mobile banking affects customer satisfaction in Selected banking institution in Kigali Rwanda. The researcher correlated the means on both variables by using the Pearson's Linear Correlation Coefficient as a way of achieving this objective and to test this null hypothesis and this was indicated in table 4.6;

Table 4.6: Pearson correlation between mobile banking and customer satisfaction

Variables correlated	r-value	Sig	Interpretation	Decision on Ho
Mobile banking Vs Customer satisfaction	.514	.000	Significant correlation	Rejected

Source: Primary Data, 2016

The Pearson's Linear correlation Coefficient (PLCC) results in table 4.6 indicated the relationship between mobile banking on customer satisfaction in Selected banking institutions in Kigali Rwanda, since the sig. value (0.000) was far less than 0.05 and r-value (0.514) which is the maximum level of significance required to declare a significant relationship in social sciences. Therefore this implies that effective telephone banking increases customer satisfaction in Selected banking institution in Kigali Rwanda and ineffective telephone banking reduces it.

4.7 Relationship between electronic banking and customer satisfaction

The main objective in this study was to establish whether there is a significant relationship between electronic banking and customer satisfaction among banking institutions in Kigali Rwanda. The researcher stated a null hypothesis that there is no

significant relationship between electronic banking and customer satisfaction, but to achieve this objective and to test this null hypothesis, the researcher used the Pearson's Linear Correlation Coefficient as indicated in table 4.7;

Table 4.7: Significant relationship between electronic banking and customer satisfaction

Variables correlated	r-value	Sig	Interpretation	Decision on Ho
Electronic banking Vs Customer satisfaction	.395	.000	Significant correlation	Rejected

Source: Primary data, 2016

Table 4.7 revealed a positive significant correlation between electronic banking and customer satisfaction ($r=.395$; $Sig=0.000$). The null hypothesis was rejected meaning that electronic banking and customer satisfaction are significantly related, this also leads to an implication that improvement in electronic banking services also increases customer satisfaction among banking institutions in Kigali-Rwanda.

4.8 Regression Analysis

Table 4.8: Regression Analysis between the Dependent and Independent Variables

Variables regressed	Adjusted r ²	F-value	Sig.	Interpretation	Decision on H ₀
Customer satisfaction VS Electronic banking	0.674	16.545	0.000	Significant effect	Rejected
Coefficients	Beta	t-value	Sig		
(Constant)		3.944	0.001	Significant effect	Rejected
ATM (Automatic Teller Machine)	0.427	7.683	0.020	Significant effect	Rejected
Electronic funds transfer	0.357	5.081	0.000	Significant effect	Rejected
Telephone banking	0.275	2.060	0.042	Significant effect	Rejected

Source: Primary data, 2016

Regression analysis results in table 4.8 revealed that electronic banking accounted for 67.4% on customer satisfaction and this was indicated by adjusted r-squared of 0.674 leading to a conclusion that electronic banking significantly affects the level of customer satisfaction. The coefficients section of this table denoted that of all the aspects on electronic banking, use of ATM (Automatic Teller Machine) accounted for the biggest influence on customer satisfaction ($\beta=0.427$, Sig=0.000).

CHAPTER FIVE

DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter presents the findings, conclusions, recommendations and suggested areas that need further research following the study objectives and study hypothesis.

5.1 Discussions

This study was set to find out the relationship between electronic banking and customer satisfaction among banking institutions in Kigali Rwanda. It was guided by three objectives that included i) examining the effect of ATM usage on customer satisfaction in selected Banking institutions in Kigali Rwanda; ii) establishing how electronic funds transfer affects customer satisfaction in selected Banking institutions in Kigali Rwanda; iii) establishing how Mobile banking affects customer satisfaction in selected Banking institutions in Kigali Rwanda.

The findings indicated that the extent of electronic banking among banking institutions in Kigali Rwanda was rated unsatisfactory on average (mean=2.34), hence implying that the Banking institutions in Kigali Rwanda don't allow their customers to conduct financial transactions electronically on a secured website operated by the institution, which can be a retail bank, virtual bank, credit union or building society, this finding is in line with Payne (2002) who denoted that Telephone banking uses short text messages sent through the client's mobile phone, SMS text messages can be used for both passive and active operations similarly as with classic telephone banking. A client can automatically receive information about his account balance: an SMS is sent to the client immediately after a certain operation is performed, or on request: a client sends the bank a correctly formatted message which processes it and answers the client's request by SMS. Information sent on request mostly concerns current interest rates or currency exchange rates. Providing these is simple for the bank because this is publicly accessible information that needs no protection. A client however can request

information about the balance in his account, which is not public information and must be protected when it is provided. Passwords are used for this purpose or technologies based on the principle of an electronic key. A client however is required to know the code of every transaction including constant and variable symbols (Payne, 2002).

Whereas Foley (2000) connoted that content on online banking on the web site is one of the factors influencing online-banking acceptance, on the other hand, quality designs, graphics or colors and the propensity to portray good image of the bank would enhance efficient use of navigation. In the context of internet banking, there is a growing body of research that has looked at influences on customer satisfaction. Jayawardhena and Foley (2000) illustrated that such web site features as speed, web site content and design, navigation, interactivity and security all influence user satisfaction whereas Broderick and Vachirapornpuk (2002) found that the level and nature of customer participation had the greatest impact on the quality of the service experience and issues such as customers' zone of tolerance, the degree of role understanding by customers and emotional response potentially determined, expected and perceived service quality (Foley, 2000).

Kim (2006) asserted that, internet banking has advantages for banks to maintain competition, to save costs, to enhance mass customization, marketing and communication activities, and to maintain and attract consumers, where as Katr (2003) stated that the internet banks serve also as gateways offering identification and authorization services to a number of third party service providers. Rationale for „banks“ to provide internet banking services, Ongkasuwan and Tantichattanon (2002) indicated that internet banking helps banks in cost saving, increase customer base, enable mass customization for e-business services, extend marketing and communication channel, search for new innovation services, and explore and development of non-core business. However, customers“ ability to subscribe to the Internet-based banking services depend on several factors such as user-friendly interface, level of Internet experience, types of services provided, (for example e-mail,

file transfer, news, online financial services, shopping and multimedia services), attitude and perception, access and delivery time and experience with the Internet (Kim, 2006).

Customer satisfaction among banking institutions in Kigali-Rwanda was found to be low and this was indicated by the overall mean (mean=2.13). This therefore implies that the banking institutions in Kigali Rwanda always provide electronic services which don't meet customers' expectations and which in turn lead to low levels of company loyalty and product repurchase. This finding disagrees with Daniel (1999) who noted that E-banking provides higher degree of convenience that enables customers to access internet bank at all times and places. Apart from that, the ease of access of computers is perceived as a measure of relative advantage (Daniel, 1999, Black et al, 2001; Polatoglu and Ekin, 2001; Gerrard and Cunningham, 2003). However Johnston (1995) had revealed that there are some service quality determinants that are predominantly satisfiers and others that are predominantly dissatisfies with the main sources of satisfaction being attentiveness, responsiveness, care and friendliness. The main sources of dissatisfaction are integrity, reliability, responsiveness, availability and functionality.

Objective one; how ATM usage affects customer satisfaction

The findings indicated that ATM usage significantly affects customer satisfaction in Selected banking institutions in Kigali Rwanda, since the sig. value (0.000) was less than 0.05. Therefore this implies that effective ATM usage increases customer satisfaction in Selected banking institution in Kigali Rwanda.

Objective two; effect of electronic funds transfer on customer satisfaction

The findings indicated that electronic funds transfer has a significant effect on customer satisfaction in Selected banking institution in Kigali Rwanda, since the sig. value (0.000) was less than 0.05 which is the maximum level of significance required to declare a significant relationship in social sciences, hence implying that improvement in electronic

funds transfer can also increase customer satisfaction in Selected banking institutions in Kigali Rwanda.

Objective three; establishing the effect of mobile banking on customer satisfaction

The findings indicated that mobile banking has a significant relationship on customer satisfaction in Selected banking institution in Kigali Rwanda, since the sig. value (0.000) was less than 0.05 and r-value (0.514), this implied that effective mobile banking improves customer satisfaction in Selected banking institution in Kigali Rwanda and ineffective telephone banking reduces customer satisfaction.

The findings indicated a positive significant relationship between electronic banking and customer satisfaction among banking institutions in Kigali Rwanda, since the sig. value (0.000) was less than 0.05 and which is the maximum level of significance required to declare a significant relationship in social sciences. This implied that better electronic banking increases the level of customer satisfaction among banking institutions in Kigali Rwanda, and ineffective electronic banking services reduces it. The findings further indicated that electronic banking accounted for 67.4% on level of customer satisfaction and this was indicated by adjusted r squared of 0. 674 leading to an implication that electronic banking significantly affect the level of customer satisfaction among banking institutions in Kigali Rwanda, and the coefficients table further indicated that among all the aspects of electronic banking system, ATM (Automatic Teller Machine) accounted for the biggest influence on customer satisfaction ($\beta=0.427$, Sig=0. 000). This finding is not in line with Hoffman and Novak (1996) who found out that there is a significant correlation between download speed and user satisfaction. Speed of download depends on the nature of the site downloaded content, the computing hardware and method of connection used to download information. Johnston (1997) also illustrated that certain actions, such as increasing the speed of processing information and customers, are likely to have an important effect in terms of pleasing customers; however other activities, such as improving the reliability of equipment, will lessen dissatisfaction rather than delight customers and suggests that it is more important to ensure that the

dissatisfiers are dealt with before the satisfiers. Thus, it is hypothesized that speed has positive effect on customer satisfaction (Johnston, 1997).

5.2 Conclusions

The extent of electronic banking was rated unsatisfactory on average (mean=2.34), hence concluding that the Banking Institutions in Kigali Rwanda don't allow their customers to conduct financial transactions electronically on a secured website operated by the institution, which can be a retail bank, virtual bank, credit union or building society.

The level of customer satisfaction was rated low on average (mean=2.13), hence leading to a conclusion that the banking institutions in Kigali Rwanda always provide electronic services which don't meet customers' expectations and which in turn leads to low levels of company loyalty and service usage.

From the findings of the study, ATM usage significantly affects customer satisfaction in selected banking institutions in Kigali Rwanda, since the sig. value (0.000). Therefore, concluding that effective ATM usage increases customer satisfaction in Selected banking institutions in Kigali Rwanda.

From the findings of the study, the researcher concluded that electronic funds transfer significantly effects customer satisfaction in Selected banking institutions in Kigali Rwanda (sig. value=0.000) was less than 0.05, hence concluding that improvement in electronic funds transfer increases customer satisfaction in selected banking institutions in Kigali Rwanda.

From the findings of the study, it was indicated that mobile banking affects customer satisfaction in Selected banking institutions in Kigali Rwanda, since the sig. value (0.000) was far less than 0.05 and r-value (0.514), hence concluding that effective mobile banking improves customer satisfaction in selected banking institutions in Kigali Rwanda and ineffective telephone banking reduces customer satisfaction.

There is a positive significant relationship between electronic banking and customer satisfaction among banking institutions in Kigali Rwanda, hence the researcher concluding that better electronic banking increases the level of customer satisfaction among banking institutions in Kigali Rwanda, and ineffective electronic banking system reduces it, and among all the aspects of electronic banking system, the use of ATM (Automatic Teller Machine) accounted for the biggest influence on customer satisfaction ($\beta=0.427$, Sig=0.000).

5.3 Recommendations

From the findings and the conclusions of the study, the researcher recommends that;

- i. The banking institutions in Kigali Rwanda should set up more ATM machines as this will make the customers access the services all the time anywhere.

The researcher recommends that the banking institutions in Kigali Rwanda should carry out different workshops aiming at teaching their clients, hence providing them with all the knowledge and skills of using ATM machines.

- ii. The researcher recommends that the banking institutions in Kigali Rwanda should provides electronic funds transfer services 24 hours, hence helping the clients to access the bank services all the time.

The researcher recommends that in order for the banking institutions in Kigali Rwanda improve more on the customers' feedback, these banks without delay should respond to clients' problems, suggestions, and complaints in a prompt manner.

- iii. The staff of the selected banking institutions in Kigali Rwanda should be able to help the customers whenever they experience any problem with electronic banking system, and it should be handled in a continuous manner.

The staff of the selected banking institutions should be able to help the customers by using available telephone banking services such as SMS.

- iv. In order for the banking institutions in Kigali Rwanda to improve on customer satisfaction, they should put up different branches for customers to access the services.

- v. The researcher recommends that the banking institutions in Kigali Rwanda should use phone calls, mails and personnel visits while communicating with customers as this will also lead to the improvement to customers' feedback.
- vi. The banking institutions in Kigali Rwanda should focus on strategies of having more female clients since it is evident that the percentage of females who use electronic banking services is relatively lower compared to male customers.
- vii. In order for these banks to actively solve the problem of customers' ignorance regarding e-banking services, this can be done through physically teaching the customers about electronic banking services.

5.4 New knowledge acquired

The study was able to bridge the gaps that were not covered by the previous studies on electronic banking and customer satisfaction in Kigali Rwanda. The study brought up new frontiers of knowledge on how Banking institutions should apply electronic banking systems and the weaknesses that were found out in their current operations hindering customer satisfaction in terms of customer loyalty, customer's feedback and customer knowledge.

5.5 Areas for further research

Prospective researchers and even students are encouraged to research on the following areas;

1. Use of ATM (Automatic Teller Machine) and customer satisfaction among banking institutions in Kigali Rwanda.
2. Mobile banking and customer satisfaction among banking institutions in Kigali-Rwanda.

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APPENDICES

APPENDIX 1

**TRANSMITTAL LETTER FOR THE RESEARCHER
COLLEGE OF ECONOMICS AND MANAGEMENT
OFFICE OF THE PRINCIPAL**

INTRODUCTION LETTER FOR NUWAGIRA KENETH REG.MBA/37385/151/DU,TO
CONDUCT RESEARCH IN YOUR ORGANIZATION

The above mentioned candidate is a student of Kampala International University
pursuing a Masters of Business Administration

He is currently conducting a field research for his dissertation titled "Electronic Banking
and customer satisfaction in banking institutions in Kigali Rwanda"

Your organization has been identified as a valuable source of information pertaining to
his research project. The purpose of this letter then is to request you to avail him with
pertinent information he may need.

Any information shared with him will be used for academic purposes only and shall be
kept with utmost confidentiality

Any assistance rendered to him will be highly appreciated

Yours truly,

.....

DR. JOHN MUTENYO
COLLEGE PRINCIPAL, CEM

APPENDIX 2: TRANSMITTAL LETTER FOR THE RESPONDENTS

Dear Sir/ Madam,

Greetings!

I am a student of Masters of Business Administration at Kampala International University. As a requirement for the award, am carrying out a research on Electronic Banking and customer satisfaction in banking institutions in Kigali Rwanda. It is in this regard that I request you to participate in this study by answering the questionnaires. Kindly do not leave any option unanswered. Any information provided shall be used primarily for academic purposes only and shall not be disclosed to others.

May I retrieve the questionnaire within a three (3) days' time?

Thank you very much for your consideration.

Yours faithfully,

.....

Mr. Keneth Nuwagira

APPENDIX 3: CLEARANCE FROM ETHICS COMMITTEE

Date _____

Candidate's Data

Name _____

Reg.No _____

Course _____

Title of Study _____

Ethical Review Checklist

The study reviewed considered the following:

Physical Safety of Human Subjects

Psychological Safety

Emotional Security

Privacy

Written Request for Author of Standardized Instrument

Coding of Questionnaires/Anonymity/Confidentiality

Permission to Conduct the Study

Informed Consent

Citations/Authors Recognized

Results of Ethical Review

Approved

Conditional (to provide the Ethics Committee with corrections)

Disapproved/ Resubmit Proposal

Ethics Committee (Name and Signature)

Chairperson _____

Members _____

APPENDIX 4: INFORMED CONSENT

I hereby give my consent to be part of the research study of Mr. Keneth Nuwagira that will concentrate on Electronic banking and customer satisfaction in banking institutions in Kigali Rwanda.

I shall be assured of privacy, anonymity as well as confidentiality of the information given out to the researcher and that I will be given the option to refuse participation and right to withdraw my participation anytime.

I have been briefed that the research is purely academic and that the results will be given to me as and when asked.

Name: _____

Date _____

SECTION B: QUESTIONNAIRE TO DETERMINE ELECTRONIC BANKING

DIRECTION: rate your ability, knowledge or skill on the following item by ticking the right number corresponding with each question. Key; 1=strongly disagree; 2 = Disagree; 3 = Agree; 4 = strongly agree.

Items on E-banking		Rank			
ATM (Automatic Teller Machine)					
1	Your bank ATM machines located in Kigali Rwanda work 24 hours	1	2	3	4
2	The ATM machines of your Bank are also located in remote areas	1	2	3	4
3	You have the knowledge and skills of using ATM machines	1	2	3	4
4	You always use ATM card when depositing and withdrawing money	1	2	3	4
Electronic funds transfer					
1	Your bank provides electronic funds transfer services 24 hours	1	2	3	4
2	The bank always emphasizes its customers to choose electronic funds transfer because of saving time	1	2	3	4
3	You always find it easy to electronically transfer money from one account to another	1	2	3	4
4	There are charges imposed to customers by the bank when transferring money electronically from one account to another	1	2	3	4
Mobile banking					
1	Many customers of this bank have always managed to check their latest transactions (what has come in or gone out)	1	2	3	4
2	The mobile banking of your bank is always error free	1	2	3	4
3	You're always able to transfer money between your bank accounts	1	2	3	4
4	The Mobile banking system provides high degree of convenience to customers	1	2	3	4
5	Mobile banking always helps you pay your bank card bill	1	2	3	4

SECTION C: QUESTIONNAIRE TO DETERMINE CUSTOMER SATISFACTION

DIRECTION: rate your ability, knowledge or skill on the following item by ticking the right number corresponding with each question. Key; 1=strongly disagree; 2 = Disagree; 3 = Agree; 4 = strongly agree.

Items customer satisfaction	<i>Rank</i>			
Customers' feed back				
This bank actively responds to customers' enquiries	1	2	3	4
This bank uses phone calls, e-mails, and personnel visits to communicate with customers	1	2	3	4
This bank without delay responds to clients' problems, suggestions, and complaints	1	2	3	4
Customers' knowledge				
The bank actively solves the problem of customers' ignorance regarding e-banking services	1	2	3	4
They practice of flexibility always depends on customers' knowledge and requirements.	1	2	3	4
They are able to use customers' ideas to develop a new market	1	2	3	4
The bank has different means of teaching customers about new products/ services.	1	2	3	4
Customer loyalty				
The bank always provides reliable information to the customers	1	2	3	4
This bank can be a point of reference according to your services	1	2	3	4

The bank provides a direction to the customers as in where they can access services depending on location.	1	2	3	4
You are extremely satisfied by the new innovations and creativity made in the Bank so that you are served better.	1	2	3	4
The top management of this bank always spend time in customer-contact areas, both observing and working in customer service jobs	1	2	3	4

Thank you so much

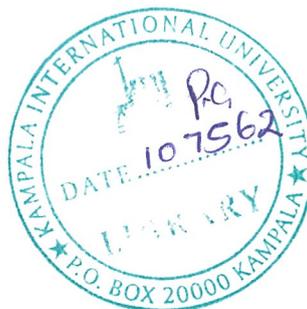
INTERVIEW GUIDE

As a customer, explain the challenges you have always faced during electronic banking services.....

.....

Explain the main reasons why you prefer electronic banking services

.....



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