

**Analysing the effects of internet banking on the efficiency of commercial banks in uganda: A case of
Stanbic Bank Mukono Branch**

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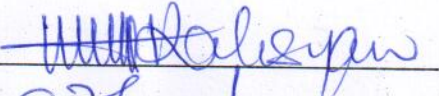


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APPROVAL

This research report has been submitted to the School of Business with my approval.

Signed: 

Date: 07/09/2023

MR. AGUME ANTHONY K

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DEDICATION

I dedicate this research study to my family, my mother, Bongomin Gloria, my father Bongomin Benjamin, my sister Bongomin Racheal all of whom have always supported me when I needed it the most, have encouraged me amidst challenges and have been strong pillars all throughout my life. For the driving force each of them has been in my life, I want to say thank you.

I also want to dedicate this to myself for always pushing on and enduring through the storms of life especially when giving up seemed like a much easier and faster option to choose instead.

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LIST OF ABBREVIATIONS

ATM	Automated Teller Machine
ICT	Information, Communication & Technology
TAM	Technology Acceptance Model
EFT	Electronic Fund Transfer
POS	Point Of Sale
SMS	Short Message Service
PC	Personal Computer

ABSTRACT

The banking industry has been largely influenced by technological advancements just like the other aspects of life. With the emergence of e-banking, bank operations have been significantly redefined and transformed. Technology is viewed as one of if not the major driving force in the performance success of firms. All banks irrespective of whether local or foreign are heavily investing on the different emerging technologies so as to assure that their customers are satisfied with their services. This study sought to analyze the effects of internet banking on the efficiency of commercial banks in Uganda, using Stanbic bank as the case study. Internet banking in the study being the independent variable and bank efficiency being the dependent variable. The study was guided by different objectives and these were, examining the types of e-banking services provided by Stanbic bank, evaluating the effectiveness of internet banking methods employed by Stanbic bank, establishing the possible challenges of internet banking in Stanbic bank and establishing how the efficiency of commercial banks has been influenced by internet banking. The study was carried out using a cross-sectional research design that was descriptive. Both qualitative and quantitative methods were used as main methods and under qualitative the responses were derived from the respondents. Bank efficiency in this case was measured through the reliability of the bank, its response to its customers, and the level of customer satisfaction as well. The results revealed that there is a good standing relationship between the two variables, internet banking being the independent variable and efficiency being the dependent. According to the measures used to measure the banks efficiency, the reliability levels the customers have on the banks is good, just as the timely responses delivered to the customers in case of any concern or inquiry and all these are done on time. The satisfaction of the customers towards everything is also good. The study disclosed that the efficiency levels of the bank are good and also there is a relatively strong relationship between internet banking and bank efficiency. The study recommends that more multiple measures should be put in place to enhance internet banking among commercial banks which will lead to the improvement of efficiency. It also recommends that internet banking should be invested in and the government through favorable policies should generate and create a conducive environment for commercial banks to operate seeing as their growth will encourage and lead to economic growth of the country.

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CHAPTER ONE

INTRODUCTION

1.1 Introduction

This chapter contains and consists of the background of the study, the statement of the problem, the purpose of the study, objective of the study, research questions, and scope of the study and significance of the study.

1.2 Background of the study.

Internet banking also known as online banking, e-banking or virtual banking, is an electronic payment system that enables customers of a bank or other financial institution to conduct a range of financial transactions through the financial institution's website. Internet banking (E-banking) is an umbrella term for the process by which a customer may perform banking transactions electronically without visiting the bank. It is also called online banking because it is an outgrowing of a personal computer (PC) banking and it tends or rather uses a web of computers like mobile phones with browsers, and as earlier mentioned personal computers, desktop software, telephone all delivery channels through which to carryout banking activities like transferring of funds, saving accounts and checking, viewing, payment of bills, paying mortgages and purchasing financial instruments and certificates of deposits.

Additionally, Information and Communications Technology (ICT) which is a key to interest banking has enabled banking institutions to deliver services by using several technological means such as Automated Teller Machines (ATMs), credit cards, mobile banking, electronic cards. To deliver the best services, banks compete against each other by applying the latest technologies for their own benefit and the benefit of their customers. These ways of banking services have been used in Tanzania for some time now, limited knowledge however exists on the efficiency of banks since the adaptation of this technology that provides for internet banking.

The research however on the financial performance of banks since the introduction of internet banking has been vast while there has been limited research on the impacts of internet banking on the bank efficiency especially within the European Union context. As EU continues to

enlarge, the integration of financial services sector towards achievement of a Single European Banking Market gains real importance. EU has also mentioned in its various communications the priority it gives to the E-finance and accordingly internet banking. When put into consideration the fact that Turkey held a candidacy status to EU along with accession negotiations being held between Turkey and EU, the Turkish banking sector was chosen as a sample to carry out the research. The research analysed the banking sector of Turkey within 1996-2006 periods to put to quantity the intensity of the effect of internet banking on the bank performance. For this purpose, panel data from almost 13 savings and commercial banks in Turkey that had adopted internet banking sometime between 1996 and 2005 had been collected and OLS estimations made.

Before the introduction of internet banking system, the use of raw cash transactions was said to have bred theft, armed robbery and corruption which was done through the “cash and carry syndrome” usually linked with the swift movement of the “Ghana must go bags” by some individuals. For a good number of years bankers, entrepreneurs, technology specialists and others have pushed for the replacement of physical cash and the introduction of more efficient, flexible, cost effective banking operations.

Uganda currently has 25 licensed commercial banks as of June 30. 2022. In the 21st century, banking is considered as innovative banking. The banking philosophy has been transformed by the technological changes along with many internet banking which has increased the competitiveness of Uganda’s banking industry. The banking system operates in an environment experiencing and going through huge dynamism and challenges which has necessitated for new product, process and market innovations. The application of information technology has yielded new innovations in product design and changed their mode of delivery in the banking and finance sectors. Internet banking has been employed as a strategic resource for attaining higher efficiency, reduction of cost and control of operations through replacement of paper based as well as labour intensive methods with automated processes and therefore resulting higher productivity and profitability.

Efficiency in the sector will ensure commercial bank’s the shareholders get a return to their investment which triggers more investment thus increased economic growth. Poor performance however leads to failure of the financial market which may cause financial crisis that hinders economic growth.

1.2.1 Internet Banking.

Internet banking means using the internet as a delivery channel to carry out banking services which consists of banking services like the electronic bill presentation and payment and all traditional services for example printing statement, payment bills, fund transfers to other accounts and balance inquiry without visiting a bank. Xiao (2008) defines internet banking as a service that enables a bank client to effect a financial transaction anywhere, via electronic means without necessarily visiting the bank physically. Internet banking has not replaced traditional banking but relatively improved on quality service delivery, speed, decreased cost and optimized on efficiency of banking services. (Gonzalez, 2008)

Electronic banking enables viewing of accounts and generating statements, transferring money, scheduling electronic periodic payments like rent, paying bills, opening accounts or loan application (Sathye, 1999). Banks are enhancing their traditional methods with e-banking because of its vast benefits. It has improved customer service because it is self-service in nature. Again, it is helping banks increase their account sales through a wide market reach and brings in new market opportunities with increase bank deposits.

Internet banking has brought down costs like cheque processing costs, cashiers and customer staff cost through automation of services, costs of stationery due to online filling and processing of data and importantly data entry cost because customers fill applications themselves (Wright & Ralson, 2002). Average value of customer transactions via internet banking can be used to measure the usage of internet banking by commercial banks customers.

1.2.2 Firm Efficiency.

Sandrine (2010) defines bank efficiency as being related to the ability to produce a desired outcome using minimum effort or resources. It ascertains the extent to which a production units gets close to its production possibility frontier, which constitutes the points that optimally combine inputs so as to produce one output unit. Floros and Giordani (2008) say that efficiency is considered a relative measure that shows the deviation from expected output using a given set of input. According to Kalluru and Bhat (2009), efficiency is the firm's ability to ensure minimization of waste and maximization of resource capabilities so as to deliver quality products and services to the clients. It involves the identification of wasteful resources and processes that

affects productivity and growth of organizations profits. The main concern of efficiency is redesigning new work processes that improve productivity and quality (Darrab &Khan, 2010).

1.3 Statement of the problem.

The process of technological innovation and implementation forms a critical part in the growth of many nations. A change of past techniques and adoptions of local technology similar to that of more advanced nations lead to indigenous technological innovations. (Roehm & Sternthal, 2001). The advancement in technology has made some tasks more efficient and cheaper but it also has its own fair share of challenges (Aladwani, 2001). This has seen firms in the banking sector use technology to develop alternative banking channels to reduce costs and enhance efficiency and convenience but still fail. This study entails a review on the impact of internet banking on the efficiency of commercial banks.

Ugandan banks have embraced ATMs, POS, mobile banking, internet banking, agency banking and card business. Alternative banking channels are being used as a tool to cut cost, increase efficiency, deliver product varieties, increase flexibility or even for the mere purpose of being perceived as technology leader. A company however may be efficient but not profitable or profitable but not efficient. A good number of banks have embraced internet banking as a competitive strategy to increase performance but with little attention on indirect impact such as efficiency.

Although studies conducted before in Uganda have studied an effect of internet banking, most of them have focused on its effect on financial performance and not much on the efficiency which is a gap the current study leveraged on by answering the research questions.

1.4 Objectives of the study.

The Main objective of the study was to analyse the effects Internet Banking has had on the efficiency of commercial banks in Uganda, with Stanbic bank as a case study.

This study was based on the following objectives;

- I. To examine the types of E-banking services being provided and used by Stanbic bank.
- II. To evaluate the effectiveness of internet banking methods employed by Stanbic bank.
- III. Establish the possible challenges of Internet Banking in Stanbic bank.

IV. To establish how the efficiency of commercial banks has been influenced by Internet Banking.

1.5 Research Questions.

This research was set to answer the following research questions:

- i. What are the E-banking services Stanbic bank provides?
- ii. What is the effectiveness of internet banking methods employed?
- iii. What are the challenges Stanbic bank as a commercial bank faces as a result of internet banking?
- iv. How does E- banking influence the efficiency of Stanbic bank?

1.6 Scope of the study.

1.6.1 Content scope

This study was about analysing the effects of Internet Banking on the efficiency of commercial banks in Uganda, it majorly concentrated on examining the types of E-banking used, evaluating the effectiveness of internet banking methods employed, establishing how internet banking has impacted the efficiency of commercial banks, the challenges of internet banking. The types of E-banking used in Stanbic bank, the influence of internet banking on the efficiency of commercial banks.

1.6.2 Geographical scope

The study was limited to Stanbic bank in Mukono Municipality. This was due to the limited time, resources and logistical problems faced by the researcher hindering her from carrying out the research on a larger scale nationwide. Conducting the research in Mukono with quite a number of clients enabled the researcher to get better result from the research.

1.6.3 Time scope

The study covered records of Stanbic bank for the time period 2018-2022. This period was chosen because internet banking was already employed in a good number of commercial banks and financial institutions. There still exists the problem of inefficiency in the proper use of electronic payment systems which led to relatively low profit generation.

1.7 Significance of the study.

The results of the research is crucial to future researchers since it can be a point of reference. The findings may likely be significant to scholars and researchers in identifying the research gaps on the related topics of study as well as reviewing of the empirical literature to institute further areas of research.

The study is timely and will generate information that will beuseful to a number of groups of stakeholders in the banking industry, including management, researchers in the banking sector and regulatory authorities. The management of commercial banks will find this report useful in identifying how they can use internet banking to increase efficiency of their respective banks.

To the government and other policy makers, this study inference willhelp them to guide and formulate policies and guidelines that would assist commercial banks and others in the sector adopt internet banking that will greatly add to their efficiency and therefore contribute to sector performance.

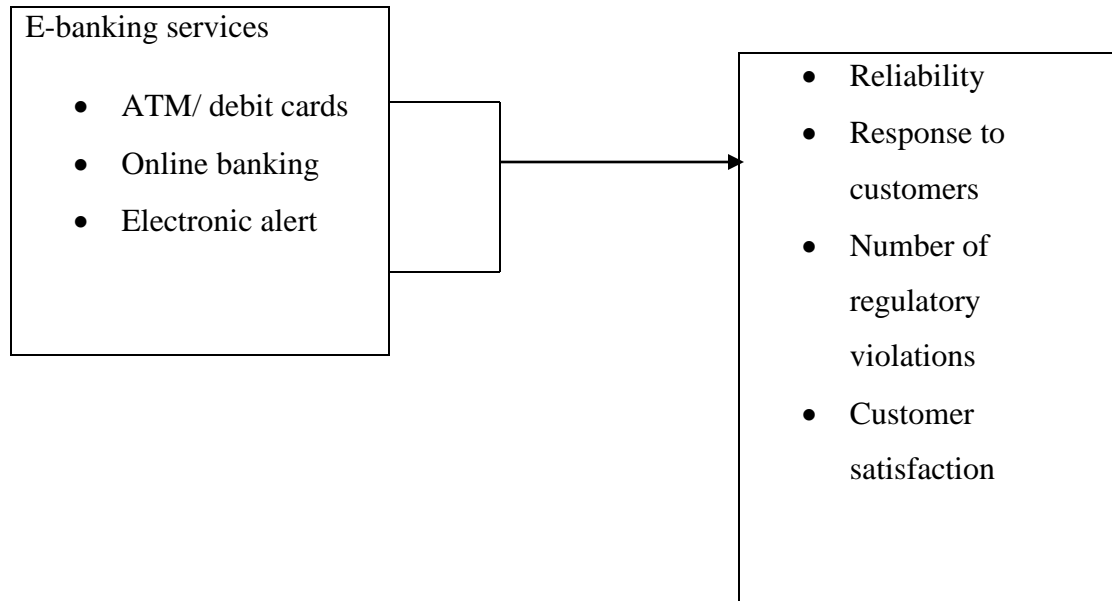
1.8 Conceptual Framework.

The conceptual framework developed below portrays the expected relationship between the study variables. Independent variable was internet banking, and the control variables were e-banking services which has ATM (Automated Teller Machine), online banking, electronic alert, mobile banking and also the components of internet banking which entails communication network, delivery channel, banking system software.

Efficiency was the dependent variable that the study sought to explain and was measured using the bank's response to customers, reliability and customer satisfaction.

The Conceptual Framework
Internet Banking

Bank Efficiency.



CHAPTER TWO

LITERATURE REVIEW.

2.1 Introduction

The section gives reviews of theories that form the foundation of this research. In addition, the previous empirical studies that have been carried before on this research topic and related areas are also discussed. The other sections of this chapter include determinants of efficiency, conceptual framework showing the relationship between the study variables and a literature review summary.

2.2 Theoretical Framework

This presents review of the relevant theories that explain the relationship between internet banking and efficiency.

2.2.1 Technology Acceptance Model

TAM as directed by Davis (1989) clarifies the way clients embrace, acknowledge and utilize an innovation. This model asserts that once a client is given an alternative innovation, some aspects influence their choices on the means and time of utilization. This incorporates its apparent convenience and seen helpfulness. TAM embraces settled casual chain of genuine conduct convictions, goal and disposition. In Davis' study, two critical aspects are seen and recognized; seen convenience and seen helpfulness (Davis, Toaxall & Pallister, 2002).

In other studies regarding technology, TAM is widely adopted and greatly contributes to the development of a prediction of the usage of technology by an individual (Fishbein & Ajzen, 2010). Perceived ease of use influences perceived usefulness and the intention of adoption (Davis, 1989). Despite TAM being an important source of theoretical framework in study of adoption and use of technology, it has many limitations which include the initial purpose designing the model which is parsimony and generality (Dishaw & Strong, 1999), not taking into consideration non-organizational setting of the organization (Davis & Venkatesh, 2000), and ignoring the factors that moderate adoption of ICT (Sun & Zhang, 2006). This theory has affected research in acceptance of technology. In this exploration, TAAM will be utilized to discover how

the utilization of technology enhances financial performance of Uganda's commercial banks and how the accessibility of technology impacts the utilization of internet banking among Uganda's commercial banks. The theory is relevant to the current study because it explains how technology acceptance influences adoption of internet banking which is expected to affect bank efficiency in return.

2.2.2 Diffusion of Innovation Theory.

According to Mahajan and Peterson (1985), an innovation is any idea, practice or object that is introduced into a social system for the first time whereas diffusion of innovation is the process through which the innovation is conveyed using specific channels over a period of time within a social system. In this context diffusion of innovation theory seeks to describe the manner in which new inventions such as mobile banking and internet banking are adopted and used within a social system. (Clarke, 1995).

According to Sevcik (2004), the innovation adoption process is not instant but takes time. He further argues that diffusion of innovation is influenced by resistance to change since it slows down the adoption process. Innovation adoption process is influenced by five major attributes namely relative advantage, compatibility, complexity, observability and trialability (Rogers, 1995). Rogers argues that the level of new innovations adoption depends on the manner in which new organization perceives its relative advantage, trialability, compatibility, complexity and observability. If a Ugandan organization observes its benefits of internet banking then this innovation will be adopted when other prerequisite tools are available. Innovation adoption is faster in organizations with information technology departments and internet access as opposed to those without. This theory relates to the current study as it explains how innovations such as internet banking are adopted in organizations.

2.3 Types of E-banking Systems.

For many customers internet banking means 24-hour access to cash through an ATM or Direct Deposit of pay checks into checking or savings accounts. But electronic banking now involves many different types of transactions.

Automated teller machines (ATM) are electronic terminals that allow you to bank almost any time. To withdraw cash, make deposits or transfer funds between accounts, you generally insert

your ATM card and enter your pin. Some institutions and ATM owners charge a fee, particularly to customers who do not have accounts with them or on transactions at remote location. ATMs must tell you they charge a fee and its amount on or at the terminal screen before you complete the transaction. Check the rules of your institution and ATMs you use to find out whether a fee is charged or not.

Electronic banking, also known as electronic fund transfer (EFT), uses computer and electronic technology as a substitute for cheques and other paper transactions. EFTs are initiated through devices like cards or codes that let you, or those you give access to your account. The federal Electronic Fund Transfer act (EFT Act) covers some electronic consumer transactions.

Debit cards or pre-paid cards, is a method of payment always issued to a person for withdrawing money from or to a savings or current account. These automatically improve the performance of the institution leading to easy sourcing by the buying party or institution. (Intercoms, 2000) and digital or electronic e-cash, according to Gray (1994) this refers to any of the various methods that allow a person to buy goods or services by transmitting a number from one computer to another. The number may be in or of digits issued by the bank to the buying organization and they use for example digital cash, cyber buck cash and others.

Pay-by-phone systems/ mobile banking, it is through the use of mobile phone to access your bank account and make a transaction without needing to go to the bank for services like to transfer funds between accounts or to pay certain bills. You must have agreements with the institution to make such transactions and personal computer banking. For example you may use your computer to view your account balance, pay bills electronically, request transfers between accounts.

2.4 Determinants of Firm Efficiency

The efficiency of firms can be affected by elements that are either external or internal to the firms and define output level. The internal factors are different for each firm and determine its efficiency and they result from managerial decisions as well as the board. They are innovations, capital structure, liquidity, market power, firm size, management efficiency, capital. On the other hand, external factors are not within the control of management. They are factors that the firm does not have control over but need to develop strategies to deal with.

2.4.1 Internet Banking

According to Essinger (1999), internet banking is defined as the undertaking of bank transactions or access to bank accounts through bank websites. It entails the use of devices and telecommunication networks to avail several services and products to customers in order to serve all potential customers. Munyoki (2013) purports that internet banking serves well in attracting and retaining customers. Internet banking facilitates penetration in the new market as well as improvement of service quality. Meaning the bank's performance is significantly influenced by internet banking.

There has been increased application of internet banking by bankers, participants in the financial services' sector, regulators, and law and policy makers. This is associated with its perceived benefits like increased bank revenue, reduction of costs and increased flexibility in banking. Others are interested in internet banking because of the policy developments. Studies show the existence of inadequate literature on internet banking that has seen continued speculations when addressing internet banking issues. Internet banking cuts the bank's costs, reduce staffing levels, and increase banking convenience and increase commission income thus increasing the profitability of the bank. When compared with other banking services, internet banking is rated the best since it offers customers with flexibility and total control (Essinger, 1999)

2.4.2 Bank Size

Bank size determines the extent to which a firm is affected by legal and financial factors. The size of the bank is also closely linked with capital adequacy because large banks raise less expensive capital and thus generate high profits. Bank size has a positive correlation with the return on assets indicating that large banks can achieve economies of scale that reduce operational cost and hence help banks to improve their financial performance (Amato & Burson, 2007).

The amount of assets owned by an organization determine its size (Amato & Burson, 2007). It is argued that large firms have adequate resources to undertake a number of larger projects with better returns as compared to firms with small amounts of total assets. Also firms with large amounts of total assets have adequate collateral which they can pledge to access credit and other debt facilities compared to their smaller counterparts.

2.4.3 Bank Liquidity

Liquidity is defined as the degree in which an entity is able to honour debt obligations falling due in the next twelve months through cash or cash equivalents, for example assets that are short term can quickly be converted into cash. Liquidity results from management's ability to fulfil their commitment that fall due to creditors without having to liquidate financial assets (Adam & Buckle, 20003)

According to Liargovas and Skandalis (2008), liquid assets can be used by firms for financing their activities and investments in cases where the external finance is not forthcoming. Firms with higher liquidity are able to deal with unexpected or unforeseen contingencies as well as cope with the obligations that fall. It is noted that the firm's liquidity may have impact on its efficiency therefore, firms should aim at increasing their current assets while decreasing their current liabilities.

2.4.4 Capital Adequacy

Capital adequacy by definition is a measure of a bank's or other financial institution's ability to pay its debts if people or organizations are unable to pay back the money they have borrowed from the bank. Capital is the owner's contribution which supports the bank activities and acts as a buffer against negative occurrence. In capital markets that are not well organized, well capitalized banks must reduce borrowing so as to support certain index of assets, and as a result of lower prospective bankruptcy costs they tend to face lower funding costs.

A well-capitalized bank has a signalling effect to the market that a performance above average is expected. Athanasoglou et al (2005) realized that capital contributions positively affected bank profitability which reflect sound financial condition of banks in Greece. Berger et al (1987) noted positive causality in both directions between capital contributions and profitability in companies.

2.4.5 Management Efficiency

Management efficiency is a key internal factor that qualitatively measures and determines the operational efficiency of a firm. The ability of management to efficiently utilize the resources of the firm, their ability to maximize funding and their ability to efficiently allocate those funds are some of the ways of assessing management efficiency (Kusa & Ongore, 2013).

Management efficiency is a measure and determinant of operational efficiency and it can be assessed by looking at quality of the staff, the effectiveness and efficiency of internal controls, the discipline within the organization and the effectiveness of management systems. The quality of the management has an influence on the level of operating expenses which affects the bottom line of the firm hence management efficiency significantly affects the efficiency of the firm (Kusa & Ongore, 2013).

2.5 Empirical Review.

Studies have been conducted both locally and internationally to understand and join the relationship between technological innovations and financial performance, which in turn have bred mixed results.

A study by Mohammad and Saad (2011) on the influence of electronic banking on the performance of Jordanian banks over the period of (2000-2010) concluded that electronic banking negatively affects banks' performance which is in a way similar to the findings of Delgado, Hernando and Nieto (2007). Electronic banking adoption impacts the bank's risk profile. The risk management principles issued by Basel Committee in July (2003) for electronic banking recognize the related risk factors and the committee's aim was to promote and enhance safety of services provided by online banking while observing flexibility in line with emerging technologies as a result of the turbulent environment.

Tchouassi (2012) used empirical studies from selected Sub-Saharan countries to establish whether mobile phones actually contribute in extending banking services to the unbanked. The aim was to find how mobile phones can be used to the unbanked and poorer population. The findings showed that the poor and vulnerable households often incur high financial transactions while carrying out basic financial transactions, therefore, the use of mobile phones could improve the provision of financial services in this sector and that economic and technological innovation, regulatory and policy innovation was required to extend this service.

Wadhe and Saluja (2015) explored the influence of e-banking on the profitability of commercial banks in India between the years 2006 to 2014. For the purpose of the study over 30 commercial banks under four major Indian bank groups were sampled. The impact of e-banking on the profitability of commercial banks was tested using multiple regression analysis. The findings

showed a positive association between e-banking and both private and public sector profitability of commercial banks. The recommendation was that banks should increase the number of ATMs so that there is increased profitability, however, a negligible association existed between a number of branches and the banks' profitability.

2.6 Summary of Literature review.

A good number of theoretical frameworks explain the theoretically expected relationship between internet banking and efficiency of commercial banks. The theories covered in this review include; the technology acceptance model, diffusion of innovation theory. Some of the primary determinants of firm efficiency as well as the different types of e-banking system are explored as well. The empirical studies previously carried out on internet banking and efficiency of banks and their findings as well have been explored.

The different reviewed studies carried out in Uganda mostly consider financial performance as the dependent variable and don't dwell much on the efficiency of commercial banks. This study will seek to fill this research gap by researching on the influence of internet banking on the efficiency of commercial banks in Uganda.

CHAPTER THREE

RESEARCH METHODOLOGY.

3.1 Introduction.

To bring out and establish the influence internet banking has had on the efficiency of commercial banks, a research methodology was necessary in order to outline how the research was done and carried out. This chapter contains sections, for example research design, data collection, and data analysis.

3.2 Research Design.

The study used a cross-sectional research design that was descriptive. The correlation research design helped to establish a relationship between internet banking and the efficiency of commercial banks. Both qualitative and quantitative method were used as the main methods. Under qualitative, the researcher used responses derived from respondents, however, for quantitative, the qualitative method was descriptive in nature and this helped the researcher to reach the objectives of the study.

3.2.1 Selection of the Area.

This research study was conducted in Stanbic Bank, Uganda in order to access the effects of internet banking on the efficiency of commercial banks in Uganda. The reason for choosing Stanbic bank as a case study was because of its performance and technology advancement.

3.3 Study Population.

This entails a collection of study units for which samples of interest were possibly and easily determined. The study population had samples from across sections of administration, finance, data and information department.

The study population comprised of 50 representatives of Stanbic bank, having the bank manager, administrators, banking officers and bank customers inclusive.

3.3.1 Sample Size.

By putting the judgmental analysis to use, a sample size of about 50 respondents were used for the sake of getting accurate data. They were selected purposively because they were the ones who were handling the transactions under study and also had thorough knowledge of the transactions or workings of the bank. The researcher used Solvin's formula (1960) to guide the determination of the sample size by a calculation.

Where; n = required sample, N = population, e = margin percentage error (5%)

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

$$n = \frac{50}{1 + 50(0.05)^2}$$

n= 45 respondents

3.4 Sampling Techniques.

This section entails a selection of people who took part in the research.

3.4.1 Random Sampling.

Random sampling method involves selecting respondents from the study population by chance. And through this sampling technique every respondent was granted an equal opportunity or chance to be included in the sample. This was used to avoid bias while obtaining samples.

3.5 Source of Data.

The study had both primary and secondary sources of data collection.

3.5.1 Primary Data.

This data was collected and gathered from the respondents at Stanbic Bank management who were assumed to have firsthand information on the subject of which the research study was about. The researcher collected data herself, by use of questionnaires.

3.5.2 Secondary Data.

Secondary data was found or got from a number of different sources like, journal articles, internet, newspapers, and reports and also from books that were in relation with the subject of the study. These sources were consulted at length so that the information required to support the study findings from the respondents was the only information extracted.

3.6 Data Collection Methods.

The study made use of various methods while collecting data in order to come up with sound, credible and concrete findings.

3.6.1 Questionnaires.

The researcher used formal interviewing as a method of data collection, the interviews offered a chance for in depth exploration of topics and allowed interaction between the researcher and the respondents so that any misunderstandings of the questions and answers provided could easily get corrected.

3.6.2 Instruments of Data collection.

Self-administered questionnaires were used to collect primary data where both open ended and closed ended questions were designed and used to collect data from the respondents. The respondents filled the questionnaire themselves and it was a tool used to collect data from the Stanbic bank employees. The method was used because of its provision of confidentiality since the study respondents were answering the questions at their own convenience in regard to time.

Secondary data/ Documentation.

Secondary data was also be used to collect data because the researcher collected secondary information from a number of various sources such as the internet, newspaper, magazines, journal amongst other sources.

3.7 Data Presentation and Analysis.

After data was collected, the researcher edited the information so as to end up with accurate and complete data that was compiled from the field which was then entered into the computer using the Statistical package for social sciences in order for the data to be analyzed. The data was analyzed according to the research questions and then be presented.

3.8 Limitations of the Study.

The study had a few hindrance or challenges, and a few are mentioned below

Time.

The time set aside and allowed to have this research carried out was not adequate enough to allow for the exhaustive study of the topic in order to obtain all the possible necessary and essential information that would encourage more suitable conclusions. This hindrance was dealt with through putting much needed effort in order to meet the deadline, keeping the available time in mind.

Financial.

Financial wise, the researcher had limited resources necessary for the fruitful carrying out of the research, for example in regards to transport costs, stationery.

Respondents withholding information was also disadvantageous and not helpful to the success of the research. The researcher endeavored to promise and convince the respondents of confidentiality regarding the information that they provided, and also for further comfort and peace of mind, provided an introductory letter or statement acquired from the faculty that fully explained the purpose and importance of the research study.

CHAPTER FOUR
PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA.

4.1 Introduction

This chapter focused on the analysis of the collected data to establish the effects of internet banking on the efficiency of commercial banks in Uganda. It examines the types of e-banking payment methods used, the effectiveness of internet banking methods employed, and how internet banking has influenced the efficiency of commercial banks, using Stanbic bank as a case study.

4.2 Methods of internet banking used in Stanbic bank.

One of the key objectives of the study was to establish the various methods used in electronic payment by commercial banks having Stanbic bank as the case study.

Table 1: Methods of internet banking payments.

Method	Frequency	Percentages
Debit/prepaid cards	41	82
Use of credit cards	44	88
Use of EFT via phones	41	82
Use of internet banking	40	80

Use of credit cards, majority of respondents totaling to 44 indicated that use of credit cards was an electronic payment method perhaps reliably used by Stanbic Bank. It was further stressed that a card was issued to a person or a business for goods and services as well as obtaining cash against a particular work done for the business organization and these cards are so imperative to the organization because they help in reducing errors that could possibly occur.

More respondents adding up to 40 of them, asserted that there is usage of internet banking and payment by Stanbic Bank clients. This method however is still being adopted and put to use by the clients since they are still skeptical about adopting to the use of internet banking because of the rising issue with fraudsters and conmen who pose as bank personnel and end up stealing the clients' money and all. It however, despite the reluctance as mentioned above, internet banking is going through a promising progress since it has been deemed or has proven flexibility in the organization.

Use of EFT (Electronic Fund Transfers) was supported by 41 respondents who showed that EFT are one of the electronic payment methods. It was further stressed that it provides clients with options of transferring funds from one account to another with the help of the bank and consent of a client.

All in all, use of credit cards was the most common electronic payment method that was used by Stanbic bank clients as the researcher studied the views of the respondents about the most common methods used by Stanbic bank. They further indicated that with the help of ATM machines, payments have been made easier to all clients and they also easily access their credit at any time they feel the need to do so or wish to do so, which has in turn increased the levels of efficiency of the bank.

4.3 The effectiveness of the internet banking methods employed by Stanbic bank.

4.3.1 Benefits of Internet Banking adoption.

The respondents were questioned on the benefits Stanbic bank has derived from its adoption of e-banking and the response derived is as follows;

Respondents representing about 50 or less of the sample population indicated that Stanbic bank has benefited from its adoption of e-banking in a number of ways, some of which include improvement in productivity, speed and efficiency in their delivery of service and also improvement of their customer service.

Some respondents also stated and mentioned the increase in market share as a result in the adoption of e-banking, ease and increase in market access as well, cost saving and revenue generation as some of the benefits derived.

To the banks reputation, its public image has enhanced also due to its adoption of Internet banking.

4.3.2 Benefits of Internet Banking payment methods to Stanbic Bank.

As one of the main objectives of the study, the researcher decided to probe further into the minds of the respondents in order to ascertain the different benefits of electronic payment methods on the efficiency of Stanbic Bank.

Maintenance of customer contact. Responses from respondents revealed that with internet banking payments, there is customer contact information maintenance for say sales, and still help in marketing purposes. This fosters improved relations between clients and the financial institution thereby leading to the banks' efficiency.

Reduced duplication which some responses, about 10% brought to light. They expressed that duplication can only be reduced by effecting electronic payment methods in financial institutional businesses. They also stressed that usage of cards and cheques when paying creates an offer for the customers to obtain alternative credit cards that helps in the branding of products that are used in banking.

Improvement of sourcing, the respondents also indicated that with electronic methods of payments sourcing is improved. This cited that cards are easy to be sourced by buying the organization and this gives the organization a wider base also easing selection of customers which would be difficult if the payment exercise was manual.

Transparency, more responses from the respondents showed that electronic payment makes transparency in business possible. This lets customers be in the clear with the impact of factors like e-exercise insurance, carriage on the costs of goods being purchased. The system therefore enables better decision making.

4.4 Findings on whether internet banking methods employed offer quick services.

Findings indicate that about 15 respondents out of the total that were interviewed strongly agreed that the electronic banking methods employed by Stanbic Bank offer quick services, about 6 of the respondents agreed, 4 were not quite certain and around 11 of the respondents strongly

disagreed. This in turn goes to show that Stanbic bank offers quick services to its numerous clients which leads to great customer satisfaction.

Table 2: Findings on whether there is sufficiency in the number of ATM booths.

	Frequency	Percentage%	Valid percentage%	Cumulative percentage%
Strongly agree	5	11.0	11.0	11.0
Agree	7	16.0	16.0	27.0
Not sure	4	9.0	9.0	36.0
Disagree	16	35.0	35.0	71.0
Strongly disagree	13	29.0	29.0	100.0
Total	45	100.0	100.0	

Findings revealed that 11% which was 5 of the respondents strongly agreed, 7 of the respondents agreed and about 4 of them weren't sure. 16 of the respondents disagreed and 13 strongly disagreed on whether the number of ATM booths were sufficient in Stanbic bank. The largest number of the respondents weren't in agreement and this calls for attention for the bank to pay so as to have an increase in the number of ATM booths to satisfy their customers.

Table 3: Findings on whether Internet banking methods employed maintain error free records.

	Frequency	Percentage%	Valid Percentage%	Cumulative percentage%
Strongly agree	13	29.0	29.0	29.0
Agree	14	30.0	30.0	59.0
Not sure	7	15.0	15.0	74.0

Disagree	8	18.0	18.0	92.0
Strongly disagree	4	8.0	8.0	100.0
Total	45	100.0	100.0	

Findings indicated that about 13 of the total respondents interviewed, agreed strongly that electronic banking methods employed maintain error free records, 14 of the respondents also agreed, 7 however were not quite sure. 8 of the respondents disagreed and 4 strongly disagreed. This provides the implication that the electronic banking methods employed at Stanbic bank maintain error free records given that majority of these respondents were in agreement with the statement.

Findings on whether the bank educates or sensitizes customers about the availability of internet banking methods.

It was also found out that 10 of the respondents agreed strongly with the banks' sensitization of its customers, 12 of the respondents were also in agreement, 8 weren't quite sure however and 3 disagreed. 11 also strongly disagreed. This gives the indication that Stanbic bank is able to sensitize or educate its numerous and different customers about the internet banking methods available in the bank, given that most of the responses were in positive lien with the statement in question.

Table 4: Findings on whether the internet banking services provided are secure.

	Frequency	Percentage%	Valid percentage %	Cumulative percentage %
Strongly agree	8	18.0	18.0	18.0
Agree	10	22.0	22.0	40.0
Not sure	7	16.0	16.0	56.0
Disagree	11	24.0	24.0	80.0

Strongly disagree	9	20.0	20.0	100.0
Total	45	100.0	100.0	

The findings in this particular area implied that the services are fairly safe and this calls for an improvement in the bank's security. With 8 of the respondents strongly agreeing, 10 agreed as well, 7 weren't quite sure where they stood, 11 disagreed and 9 strongly disagreed.

Table 5: Findings on whether the bank encourages customers to make use of the internet banking system in place.

	Frequency	Percentage%	Valid percentage%	Cumulative percentage%
Strongly agree	12	27.0	27.0	27.0
Agree	18	35.0	35.0	62.0
Not sure	7	16.0	16.0	78.0
Disagree	5	11.0	11.0	89.0
Strongly disagree	5	11.0	11.0	100.0
Total	45	100.0	100.0	

Findings revealed that 12 of the respondents that were interviewed were in strong agreement to the statement in question, 18 agreed as well, 7 weren't sure and 5 of the respondents disagreed. This provides that Stanbic bank has tried to encourage customers to adopt the usage of e-banking services since majority of the respondents agreed.

4.5 Challenges facing Electronic payment methods at Stanbic Bank.

In order to obtain and report chronological and accurate data as was stated among the objectives targeted by this study, respondents were asked to further shed light and give their views on the

challenges facing electronic payment in Stanbic bank. Some of the responses on the challenges are as follows.

Skilled and experienced technical staff, responses from some of the respondents revealed that effective and efficient payment methods electronically require skilled experience IT staff who are experienced in terms of maintenance and repairing making these staff demand or require high salaries. This therefore makes it a challenge for the bank to perform efficiently.

High cost of machine maintenance, majority of the respondents indicated that for effectiveness of the electronic payment services to be there, there is need for electronic machines that require high costs of maintenance. This is costly and becomes even much more so over time which results into the deprivation of the institution's efficiency performance.

Economy cash based, other respondents had these responses to give which indicated that because of cash being a much preferred mode of payment both on account of security and also because of anonymity something that is useful for tax evasion purposes. There is less preference in the usage of electronic payment methods seeing as majority of the clients prefer use of cash to the former.

Channel of conflict was also brought to light and was presented in the manner that it always arises because of the different downloads that have to be done, the different levels of speed it takes to get the results or feedback one needs or requires, also the copyright risks.

Therefore to the researcher high costs of maintenance was the most hitting challenge affecting the efficiency of the bank, the other responses however are just as important to the study as well.

4.6 How internet banking has affected the efficiency of commercial banks in Uganda, with Stanbic bank as the case study.

Customer satisfaction

The findings also revealed whether or not the customers were satisfied with the way Stanbic bank operated their electronic systems and also provided their services.

	Frequency	Percentage%	Valid percentage%	Cumulative percentage%
Strongly agree	11	24.0	24.0	24.0
Agree	16	36.0	36.0	60.0
Disagree	8	18.0	18.0	78.0
Strongly disagree	10	22.0	22.0	100.0
Total	45	100.0	100.0	

Findings indicated that 11 of the respondents were in strong agreement, 16 of the respondents also agreed, 8 however disagreed and 10 strongly disagreed. Majority of the respondents agreed, however a good number also disagreed, this goes to show that the bank should put in effort and resources towards making major improvements in their operating systems so as to enhance their efficiency levels greatly.

Response to customers as one of the measures of the dependent variable which was efficiency was shown in the findings that were indicated through the banks issuance of credits cards to its customers so as to enable quick purchase of commodities of their preference at any given time, when the want arises.

Table 6: Showing findings on bank efficiency

	Frequency	Percentage%	Valid percentage%	Cumulative percentage%
Strongly agree	11	25.0	25.0	25.0
Agree	15	33.0	33.0	58.0
Not sure	7	15.0	15.0	73.0
Disagree	8	18.0	18.0	91.0
Strongly disagree	4	9.0	9.0	100.0
Total	45	100.0	100.0	

Findings revealed that 11 of the respondents that were interviewed strongly agreed that Stanbic bank responds fast to its customers request and in this case the issue of credit cards issuance being the subject of discussion. 15 of the respondents also agreed, 7 weren't so sure, 8 disagreed and 4 strongly disagreed.

The reliability of the bank which was another measure of its efficiency was seen in the responses got on whether or not the bank has opened up more branches countrywide and thereby bringing services nearer and making it more accessible for its customers for example the presence of multiple ATMs that easy the lives of customers when they need the service instead of going to the bank again.

	Frequency	Percentage%	Valid percentage%	Cumulative percentage%
Strongly disagree	13	29.0	29.0	29.0
Agree	20	44.0	44.0	73.0
Not sure	5	11.0	11.0	84.0
Disagree	4	9.0	9.0	93.0
Strongly disagree	3	7.0	7.0	100.0
Total	45	100.0	100.0	

Findings indicated that Stanbic bank has opened up many more branches which has in turn brought its services closer to its customers. 18 respondents strongly agreed, 20 agreed, 6 weren't sure, 4 disagreed and 3 strongly disagreed.

Table 7: Showing bank efficiency indicators of Stanbic bank as of this research study.

	Frequency	Percentage%	Cumulative percentage %
Reliability	18	40.0	40.0
Response to customers	13	29.0	69.0
Customer satisfaction	14	31.0	100.0
Total	45	100.0	

Findings revealed that 18 of the respondents agreed strongly on the reliability of the bank in the sense that they can easily rely on the bank and trust it to provide the services they need. 13 of the respondents also agreed that the bank's response to its customers is amazing when concerns

among its customers arises even though a few it could do with a few improvements here and there, this however makes it efficient. 14 of the responses received from the respondents were in agreement with the customer satisfaction of the bank. The customers, majority, were pleased with the efficiency levels of the bank.

CHAPTER FIVE.

SUMMARY, CONCLUSION AND RECOMMENDATIONS.

5.1 Introduction

The section shows the summary of research findings, the conclusions made from the results, the recommendations. The chapter also discusses a few limitations encountered as well as suggestions for future research.

5.2 Summary of findings.

The research is aimed at analyzing the effects of internet banking on the efficiency of commercial banks in Uganda. The objectives of the study are to examine the types of e-banking methods used, to analyze how internet banking has affected the efficiency of commercial banks in Uganda, also the challenges faced. The independent variables for the study was internet banking, secondary data was obtained from past research carried out, the bank's website and also from the variable different sources of information found online.

5.2.1 Findings on the types of electronic banking in Stanbic bank.

With regard and respect to the type of electronic payment used by the customer, it was also found that a good number of the customers still visit their bank branches a good number of times and find physical interaction with the tellers important and useful. This however pointed out the importance to improve on the technology advancement of the bank, and also encourage their customers to embrace internet banking for most of their transactions.

5.2.2 Findings on the effectiveness of internet banking.

Findings showed that internet banking at Stanbic bank provide quick services to its clients. There was also indication that online response to clients on different inquiries and queries is fairly on time.

5.2.3 Findings on the analysis of the effects of internet banking on the efficiency of commercial banks in Uganda.

From the study carried out, findings asserted that electronic payment methods give relief by reducing manual labour on the institution. It was also revealed that with the presence of electronic payment, there is maintenance of customer contact and information, maintenance of sales as well which showed and indicated that electronic payment makes transparency a possibility in the business.

Porters and Akers 1995 stated that implementation on internet banking at a level of an organization could have implications on its competitive advantage like convenience, efficiency, productivity, flexibility, reliability, simplicity. The study discovered as well that information technology has improved greatly the ways financial institutions carryout their operations.

5.2.4 Findings on the challenges faced by internet banking in Stanbic Bank.

The study showed that high cost of machine maintenance as one of the challenges. Responses also indicated that for effective and efficient electronic payment methods to be in operation, skilled and experienced technical IT staff are needed, they however require and or demand high salaries and payments. This is involved with internet banking which affects the efficiency of the bank in turn.

5.2.5 Findings on the relationship between internet banking and bank efficiency.

Findings revealed that responses show agreement and that a good number of the customers are actually satisfied with the way the bank operates electronically despite some needed improvements in the systems. This shows that the relationship between the two variables is in a good position or standing. Findings revealed that that there is a relatively good relationship between electronic banking and customer satisfaction especially with this era of intense technological advancements. It is therefore true and safe to say that internet banking has a significant impact and effect on the efficiency of commercial banks in the country.

5.3 Conclusion

It can be concluded that the commercial banks' efficiency is significantly affected by internet banking. The study therefore concludes that a unit increase in internet banking causes a significant increase in efficiency.

The study concluded that the independent variable selected for this study, internet banking influences efficiency of the bank to a large extent.

5.4 Recommendations

The study established that internet banking has a positive and significant influence on efficiency. The study therefore wishes to make the following recommendations. Internet banking should be seriously invested into since it will lead to improvement in the efficiency of commercial banks. A conducive environment should be generated by the government through favorable policies for the commercial banks to operate since their rise and growth will also encourage and lead to economic growth of the country.

5.5 Suggestions for further research.

This study focused on internet banking and efficiency of commercial banks in Uganda and depended on secondary data and a bit of primary data. A research study conducted for a large period of time to fully study and where data collection depends fully and in depth on primary data is greatly recommended so that the information compliments and brings forth a great and clear study.

The study concentrated on the most recent years since it had the most recent data available. For future studies a range of many years could be used for example from the mid 2000 years, like around 2010 to date and this can help to confirm or disapprove the standing this study is taking. The recommendation of this study are that further studies can be conducted on other non-financial institutions operating in the economy of Uganda.

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APPENDIX

Dear respondent,

I am by names, **Bongomin. A. Charity**, a student of Uganda Christian University, School of Business. I am conducting a research on **“Analyzing the Effects of Internet Banking on the Efficiency of commercial banks in Uganda.”** A case study of Stanbic Bank in Mukono municipality. As someone who is well informed and knowledgeable in this area, you have been selected and requested to participate in the study. The information received and obtained will be put to use purely for academic purposes and will be handled confidentially.

Tick where applicable.

SECTION A: Background.

1. Name of the respondent
(optional)

2. Sex

Male

Female

3. Age of respondent:

15-30

31-40

41-above

4. Time spent working at Stanbic bank

1 year

- 2 years
- 3 years
- 4 years
- Any other (Specify).....

5. Position held or responsibility

6. Department

- Finance
- Administration
- Information and stores
- Other (Specify).....

SECTION B (TYPES USED IN E-BANKING PAYMENTS)

7. Do you know the meaning of electronic payments?

- Yes

No

8. If yes, how would you explain the term electronic payments

9. Why was internet banking adopted?

10. Does Stanbic bank actively use internet banking system?

Yes

No

Not sure

11. If yes what are the methods of internet banking used by Stanbic bank:

12. For how long has Stanbic bank been using internet banking?

3-6 years

7-10 years

Any other (specify)

SECTION C (THE EFFECTIVENESS OF INTERNET BANKING METHODS EMPLOYED)

13. As an employee of Stanbic bank, do you see an improvement in operations as a result of internet banking:

Yes

No

14. If yes, what would be the major benefits of internet banking to Stanbic bank?

15. As an employee of Stanbic bank, how would you rate the use of the internet banking system:

Very high

Relatively high

Average

Relatively low

Very low

16. Basing on the answer given above, would you please elaborate the effects of internet banking on the efficiency of Stanbic bank:

17. Kindly tick the box that indicates the extent of your agreement for the statements provided using the following guides:

SA- strongly agree **A-** agree **N-** not sure **D-** disagree **SD-** strongly disagree

	SA	A	N	D	SD
Internet banking methods employed by Stanbic bank offer quick service					
There is sufficiency in number of ATM booths					
Internet banking methods employed maintain error free methods					
Internet banking services are available all the time					
Stanbic bank sensitizes customers about internet banking methods available					
Internet banking services are secure					
It is easy to deposit and withdraw money from any					

of the ATMs available					
Stanbic bank encourages customers to make use of the internet banking system					

18. People often argue that most financial institutions face challenges when using the internet banking payment methods and this affects their efficiency. Do you agree?

Yes

No

19. If yes, what do you think are the challenges Stanbic bank faces while using internet banking system?

SECTION D (How internet banking has influenced the efficiency of Stanbic bank)

20. Are you aware of the efficiency indicators for Stanbic bank?

Yes

No

Not sure

21. If yes, what indicators apply to Stanbic bank?

22. Banking efficiency, what is the efficiency standing in this bank for the past four years?

2018-2019: _____

2019-2020: _____

2020-2021: _____

2021-2022: _____

23. Basing on the above standing indicated, would you say the efficiency of the bank has;

Increased

Decreased

Constant

24. Give with reason why you think so?
