

**EFFECTS OF ELECTRONIC BANKING IN
INTERNATIONAL BUSINESS ENVIRONMENT AND
PERFORMANCE BY DIAMOND TRUST BANK LIMITED
IN KENYA**

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**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT
OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE
OF MASTER OF BUSINESS ADMINISTRATION SCHOOL OF
BUSINESS UNIVERSITY OF NAIROBI**

OCTOBER, 2013

DECLARATION

This research project is my original work and has not been submitted for examination in any other University.

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

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ACKNOWLEDGEMENTS

My deepest gratitude go to the teaching and non-teaching staff of the University of Nairobi who facilitated me with the necessary materials and the environment that saw me complete this course successfully. Special thanks to my supervisor Dr. John Yabs for his unwavering support and guidance through the entire period. It is also imperative for me to acknowledge the input of all the lecturers who taught the coursework

I wish to acknowledge the D.T.B family with special mention to my colleagues at Prestige Plaza Branch for the support as well as the C.M.S department that furnished me with much needed information.

Last but not least, heartfelt appreciation to my family for their understanding, encouragement and assistance with various chores, which enabled me to afford time to attend class and write this project paper. Above all, I give thanks to Almighty God without whose grace I would not have completed this course.

DEDICATION

This project is dedicated to my mother, Betty Wairimu Kanogo who not only provided financial support but also the moral backing and resolve to further my studies.

I would also like to dedicate this to my aunt Prof Tabitha Kanogo for all the advice during the entire course. Last but not least, Mr A. Omita whose unwavering advice and support cannot go unmentioned.

ABSTRACT

International business helps countries to exchange goods between countries as well as exchange of technologies, getting products cheaper than producing them domestically. The concept and adoption of e banking in our commercial banks has enhanced international banking by providing a platform for corporate to do business worldwide through electronic funds transfer modules. The trading of cross currencies has remarkably enhanced business transactions. The purpose of this study was to establish effects of electronic banking in international business environment and performance of Diamond Trust Bank. The study employed a case study approach as its research design method, in which eight (8) departmental and branch heads were interviewed by use of an interview guide, information which formed the primary data of the study. Secondary data comprised of internal memos, reports and newsletters as well as graphical analysis of transactions and revenue so earned. Data was analyzed using content analysis. The study established that electronic banking was positively influential to bank performance. Electronic banking generates a sizeable amount of revenue for the bank while on the other hand aiding in cost cutting through reduction of manpower use at branches. It was found that unanimously respondents conveyed that electronic banking was both convenient to the client and the bank. As such there is heavy investment in I.C.T. by D.T.B. as evidenced by the recent system upgrade deemed to be faster and customer friendly. The study also showed that management has a big role to play in form of support as well as in meeting gaps by both client and staff. Technology was found to have a very big role to play whereby any failure would ultimately influence use and eventually revenue earned. The element of training of both staff and customers is also very key in order to minimize knowledge gap. Recommendations were also made on how best to combat the shortcomings with an alternative of research on what competitors are offering in order to learn from them. In general e banking is a broad subject which has been reviewed by many and its effect are vast in the banking industry and as such there is still room for further study.

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ABBREVIATIONS

| | |
|-----------|--------------------------------------|
| ABC | Activity Based Costing |
| AKDN | Aga Khan Development Network |
| ATM | Automated Teller Machines |
| CMS | Cash Management services |
| DTB | Diamond Trust bank |
| E-BANKING | Electronic Banking |
| EFT | Electronic Funds Transfer |
| ICT | Information Communication technology |
| IT | Information and Technology |
| M-Banking | Mobile Banking |
| PC | Personal Computer |
| PDA | Personal Digital Assistant |
| RTGS | Real Time Gross Settlement |

CHAPTER ONE

INTRODUCTION

1.1. Background of the Study

With the development of information technology, the world has become a global village and it has brought a revolution in the banking industry. The banks appear to be on fast track for IT based products and services. Bank customers are becoming very demanding and it is the extensive use of technology that enables banks to satisfy adequately the requirement of customers. Technology has become the fuel for rapid change. IT is no longer considered as mere transaction processing or confined to management information system. The wind of liberalization, globalization, and privatization has opened new vistas in the banking industry in the generation of an intensely competitive environment, (Afua 2003).

In order for banks to remain relevant in the ever changing industry, they have to keep abreast with the technological advancements as well as adoptive mechanisms of the competition. Banks are increasingly adopting systems that are not only effective but also customer friendly. It has become the norm by banks to push towards giving capacity and ability to the consumers do transactions outside of the banking halls. Services such as e-banking and use of ATMs are just a few examples.

1.1.1 Concept Of International Business Environment

International business helps countries to exchange goods between countries as well as exchange of technologies, getting products cheaper than producing them domestically. The concept and adoption of e banking in our commercial banks has enhanced international banking by providing a platform for corporates to do business worldwide through electronic funds transfer modules. The trading of cross currencies has remarkably enhanced business transactions.

For there to be a competitive international business environment several factors such as physical and societal factors (PESTEL), competitive factors such as pricing and marketing as well as risk e.g. operational and economic risk have to be taken into account to ensure success.

1.1.2 Concept of Electronic Banking and ICT

E-banking impinges on operations of banking in a number of different ways. It has enabled the banks to handle the payments electronically and inter-bank settlement faster and in large volumes. The new technology has rapidly altered the traditional ways of doing banking business. Customers can view the accounts, get account statements, transfer funds, purchase drafts by just making a few key punches. Availability of ATMs and plastic cards, EFT, electronic clearing services, internet banking, mobile banking and phone banking; to a large extent avoid customers going to branch premises and has provided a wider range of services to the customers, (Chuang & Liao, 2008).

E-banking offers the convenience of conducting most of the banking transactions at a time that suits the customer. The customer can access funds and transfer funds between accounts, Pay bills and make purchases 24 hours a day, 7 days a week. At the Basel committee, e-banking is defined as the provision of retail and small value banking products and services through electronic channels. Such products and services can include deposit taking, lending, account management, the provision of financial advice, electronic bill payment, and the provision of other electronic payment products and services such as electronic money (Basel Committee on banking supervision, 1998 and 2003).

E-banking includes systems that enable financial institutions, customers, individuals and businesses, to access accounts, transact business, or obtain information on financial products and services through public or private networks, including the internet. Customers access e-banking services using an intelligent electronic device, such as a personal computer (PC), personal digital assistant (PDA), automated teller machine (ATM). Private networks "closed" restrict access to participant (financial institutions, customers, merchants, and third party service providers) bound by agreement on the terms of membership. Public networks "open" have no such membership requirements.

There is a degree of variation in the services provided by the banks with the emergence of e-banking services. So, it becomes necessary to study the adoption, growth and effects of e-banking services on the bank's performance and service quality.

1.1.3 Banking Sector in Kenya

In 2001, approx. 60% of e-business in the U.K. was concentrated on financial services sector with zero fold increase of the British e-business. Around one-fifth of Finnish and Swedish bank customers are using banking online, while in US online banking is growing at an annual rate of 60 per cent and the number of online accounts are expected to reach 15 millions by 2006, (Suresh, 2008). In Europe, the internet is accelerating the reconfiguration of the banking industry into three separate entities: production, distribution and advice. Several banks in Asia have started offering E-banking services, most of them are offering basic services like developed countries in the US and European countries, (Daniel & Storey, 1997).

In a study conducted by Irechukwu (2000) in Nigeria, he lists some banking services that have been revolutionized through the use of ICT as including account opening, customer account mandate, and transaction processing and recording. Information and Communication Technology has provided self-service facilities (automated customer service machines) from where prospective customers can complete their account opening documents direct online.

In a study by Korir (2012) on mobile banking adoption with specific coverage of Garissa, he cites that adoption and use of mobile banking was not necessarily on age or education level but on the training of module use as well as perception of losses attributed to hacking. The concept of pricing by banks was also discussed with banks being asked to review costs downwards in order to popularize the product.

Organizational performance is a detailed analysis of its performance against its goals and objectives. It looks at the financial performance, market performance as well as the shareholder value. With international business consideration has to be put with the cross of different nations as well as their government and national policies. In trading there is

the general financial risk as well as economic risk pegged with the cross currencies and cross cultural environment. A significant part of business is managing risk, the lower the risk the higher the possibility of high returns on investment.

Diamond Trust Bank (K) Ltd

Diamond Trust Bank is one of the 44 commercial banks in Kenya. More so, Diamond Trust Bank (DTB) is a leading regional bank, listed on the Nairobi Stock Exchange. An affiliate of the Aga Khan Development Network (AKDN), DTB has operated in East Africa for over 60 years. DTB's focus on the SME sector and commitment to enhancing convenience for customers through branch network expansion has driven the Bank's growth. With 69 branches in Kenya, Tanzania, Uganda, and Burundi, some of which operate 7-days a week for extended hours, DTB is committed to enabling people to advance with confidence and success. The Bank's heritage and values are articulated in its brand promise, Achieve More, and brought to life through an engaged diverse workforce. This study is a case study of diamond Trust Bank, it offers diversified bank services both electronically and traditionally.

Performance may be defined as the reflection of the way in which the resources of a company (bank) are used in the form which enables it to achieve its objectives. According to Heremans, (2007), financial performance is the employment of financial indicators to measure the extent of objective achievement, contribution to making available financial resources and support of the bank with investment opportunities. Rutagi, (1997) defines financial performance as to how well an organization is performing. Other researchers define performance of the organization as the extent to which an organization achieves its intended outcome, Namisi, (2002).

The general assumption among both researchers and practitioners is that effective boards lead to effective organization. From either an internal long-term profitability or external shareholder perspective, there is an indication that good boards may be able to add value to the organization, (Epstein 2003).

1.2 Research Problem

The vast majority of the recent literature on electronic money and banking suffers from a narrow focus. It generally ignores electronic banking entirely and equates electronic money with the substitution of currency through electronic gadget such as smart cards and virtual currency. For example, Freedman, (2000) proposes that electronic banking and electronic money consist of three devices; access devices, stored value cards, and network money. Electronic banking is simply the use of new access devices and is therefore ignored. Electronic money then is the sum of stored value (smart) cards and network money (value stored on computer hard drives). What is most fascinating and revealing about this apparently popular view is that electronic banking and electronic money are no longer functions or processes, but devices.

Within this rather narrow scope for electronic banking and electronic money, there are nonetheless many research that address adoption and effects of e-banking on the performance. Santomero and Seater (1996), Prinz (1999), and Tarkka (2002), and many others present models that identify conditions under which alternative electronic payments substitute for currency. Most of these models indicate that there is at least the possibility for electronic substitutes for currency to emerge and flourish on a large scale, depending on the characteristic of the various technologies as well as the characteristics of the potential users. Kenya banking sector has witnessed many changes since the beginning e-banking. Today, customers of banks have efficient, fast and convenient banking services. In line with rendering qualities and acceptable services, most banks in Kenya are investing large sum of money in information and communication Technology.

In a study by Ndun'gu (2012), on the comparison on internet banking service quality and customer satisfaction at Barclays Bank of Kenya, it was found that more customers were satisfied than dissatisfied with internet banking with customer satisfaction being the highest quality assurance dimension. While banks may invest heavily on ICT and its development it is also important to invest on the human capital with focus on customer service and preferential treatment dimensions to ensure no significant customer dissatisfaction.

It is against this background, this study investigated how difference electronic channels enhance the delivery of consumers and retails products, and also how banks choose to support their electronic banking component/services internally, such as internet services provider, internet banking software, core banking vendor, managed security service provider, bill payment provider, credit business and credit scoring company, which e-Banking systems rely on. This research concentrates on the effects of e-banking on the profitability of commercial banks.

The aim is to identify and understand the changes that e-banking causing on the banking sector, in order to examine in detail how the recent (and foreseeable) advances in ICT are affecting the sector and can affect its future evolution. As ICT are having a strong influence on the evolution of the banking, this study investigates influence e-banking has on the banking sector and the payments system.

The research aims to find solutions to the following question:

What are the various forms of e-banking services offered by Diamond Trust Bank and the effect on international business environment as well as bank performance?

1.3 Research Objectives

The objective of this study was to determine the effects of e-banking on international business and performance using DTB as a case study.

1.4 Value of the Study

The findings of this research project will provide understanding on the level of adoption, use and effects of e-banking services in Kenyan banking, and in what ways the banks can implement e-banking to improve their performance. Many Commercial Banks in Kenya will find the study very valuable to their operations and more so a benchmark to decisions to improve on internet banking industry.

The policy makers in the banking business will find the study useful as a basis of formulating policies, which can be effectively implemented for better and easier regulation of the banking sector. The government will use the study so as to come up with policies and ways of promoting internet banking services in the financial institutions in the country.

The empirical results would also provide general indicators of the benefits of ICT based services in banks. Other researchers and academic community will use this study as a basis for further studies on electronic banking in Kenyan banks.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

By reviewing the related literature, the researcher will throw more light on the variables under study and in this case e-banking services and financial performance by looking at the relationship between the two variables. In reviewing the literature, work and writings of different authors will be examined so as to critically analyze and understand the variables under study.

2.2 Theoretical framework

This refers to group of related ideas that provides guidance to research study. It identifies the concepts that describes phenomenon of interest. In relation to this study, international business environment is affected by various factors which in turn affect the overall organizational performance. Models based on such theories have different foci, and are designed to examine different aspects of study subject. Some models examine only the external environment of firms while some are focused on technological aspects.

2.2.1 Open Systems Theory

The term "open systems" reflects the newfound belief that all organizations are unique—in part because of the unique environment in which they operate—and that they should be structured to accommodate unique problems and opportunities.

Environmental influences that affect open systems can be described as either specific or general. The specific environment refers to the network of suppliers, distributors, government agencies, and competitors with which a business enterprise inter-acts. The general environment encompasses four influences that emanate from the geographic area in which the organization operates. These are:

Cultural values, which shape views about ethics and determine the relative importance of various issues.

Economic conditions, which include economic upswings, recessions, regional unemployment, and many other regional factors that affect a company's ability to grow and prosper.

Legal/political environment, which effectively helps to allocate power within a society and to enforce laws. The legal and political systems in which an open system operates can play a key role in determining the long-term stability and security of the organization's future. These systems are responsible for creating a fertile environment for the business community, but they are also responsible for ensuring—via regulations pertaining to operation and taxation—that the needs of the larger community are addressed.

Quality of education, which is an important factor in high technology and other industries that require an educated work force. Businesses will be better able to fill such positions if they operate in geographic regions that feature a strong education system.

The open-systems theory also assumes that all large organizations are comprised of multiple subsystems, each of which receives inputs from other subsystems and turns them into outputs for use by other subsystems. The subsystems are not necessarily represented by departments in an organization, but might instead resemble patterns of activity.

2.3 Financial Performance in Commercial banks

Financial soundness is a situation where depositor's funds are safe in a stable banking system. The financial soundness of a financial institution may be strong or unsatisfactory varying from one bank to another (BOU, 2002). External factors such as deregulation; lack of information among bank customers; homogeneity of the bank business, connections among banks do cause bank failure. Some useful measures of financial

performance which is the alternative term as financial soundness are coined into what is referred to as CAMEL as elaborated below:

Capital Adequacy: This ultimately determines how well financial institutions can cope with shocks to their balance sheets. The bank monitors the adequacy of its capital using ratios established by The Bank for International Settlements. Capital adequacy in commercial banks is measured in relation to the relative risk weights assigned to the different category of assets held both on and off the balance sheet items (Woodford, 2002).

Asset Quality: The solvency of financial institutions typically is at risk when their assets become impaired, so it is important to monitor indicators of the quality of their assets in terms of overexposure to specific risks trends in non- performing loans, and the health and profitability of bank borrowers especially the corporate sector. Credit risk is inherent in lending, which is the major banking business. It arises when a borrower defaults on the loan repayment agreement, (Bank of Uganda, 2002).

Earnings: The continued viability of a bank depends on its ability to earn an adequate return on its assets and capital. Good earnings performance enables a bank to fund its expansion, remain competitive in the market and replenish and /or increase its capital (Yasuharu, 2000).

Liquidity: Initially solvent financial institutions may be driven toward closure by poor management of short-term liquidity. Indicators should cover funding sources and capture large maturity mismatches. An unmatched position potentially enhances profitability but also increases the risk of losses (Linyiru, 2006, p.56).

In order to assess non-financial performance in an organization, the balanced score card may be applied. It is used to align the business activities to the mission and vision of the organization. Key point is to measure the business performance against the laid out strategic goals.

The balanced scorecard suggests that we view the organization from four perspectives, and to develop metrics, collect data and analyze it relative to each of these perspectives:

The Learning & Growth Perspective

This perspective includes employee training and corporate cultural attitudes related to both individual and corporate self-improvement. In the current climate of rapid technological change, it is becoming necessary for knowledge workers to be in a continuous learning mode. Metrics can be put into place to guide managers in focusing training funds where they can help the most. In any case, learning and growth constitute the essential foundation for success of any knowledge-worker organization.

The Business Process Perspective

This perspective refers to internal business processes. Metrics based on this perspective allow the managers to know how well their business is running, and whether its products and services conform to customer requirements (the mission). These metrics have to be carefully designed by those who know these processes most intimately; with our unique missions these are not something that can be developed by outside consultants.

Customer Perspective

Recent management philosophy has shown an increasing realization of the importance of customer focus and customer satisfaction in any business. These are leading indicators: if customers are not satisfied, they will eventually find other suppliers that will meet their needs.

In developing metrics for satisfaction, customers should be analyzed in terms of kinds of customers and the kinds of processes for which we are providing a product or service to those customer groups.

Financial Perspective

Kaplan and Norton do not disregard the traditional need for financial data. Timely and accurate funding data will always be a priority, and managers will do whatever necessary to provide it. With the implementation of a corporate database, it is hoped that more of the processing can be centralized and automated. But the point is that the current

emphasis on financials leads to the "unbalanced" situation with regard to other perspectives. There is perhaps a need to include additional financial-related data, such as risk assessment and cost-benefit data, in this category.

In spite of the generally accepted notion that effective adoption of IT enhances firm performance, other studies have reported negative relationship between technology use and firm performance (Steven, 2002) or have not found any relationship (Ovia, 2001). Several explanations have been given to account for these apparent inconsistencies. Some have argued that the problem lies in the use of either publicly available data or survey data as these sources are generally restricted in scope.

2.4 Adoption and Use of E- banking by Commercial Banks

The use of information technology in banking operations is called electronic banking. Ovia (2001) argued that Electronic banking is a product of e-commerce in the field of banking and financial services. It is what can be described as Business-to-consumer (B2C) domain for balance enquiry, request for cheque books, recording stop payment instruction, balance transfer instruction, account opening and other forms of traditional banking services. Banks are also offering payment services on behalf of their customer who shop in different e-shops.

2.4.1 Internet Banking

As the banking industry has been constantly innovating and with the advent of technological development particularly in the area of telecommunication and information technology, one such innovation is internet banking. Internet banking is defined as an internet portal through which the customers can use different kinds of banking services from bill payments to making investment (Pikkarainen et al., 2004).

All the banks using internet as an additional channel or banks using internet only as delivery channel are now on the equal footing to offer their banking services on the internet and to compete for customers around the world (Karjaluo et al., 2002). Internet banking is useful for both the bankers and the customers. The rationale use of internet

banking technology from the bank point of view is mainly related to cost savings (Robinson, 2000).

2.4.2 Electronic Funds Transfer (EFT)

In the present age of integrated technology consisting of computers and communication facility, distances need no longer be constraint in providing customer service. EFT permits transfer of funds, from any account to any other account at any branch of any member bank in any other city (Jain, 2006). In other words, electronic fund transfer facilitates the quick movement of deposit money from one bank account of one customer to the bank account of another customer. In this system, the sender and the receiver may be located at different cities. As an important tool of customer services, EFT system addresses the needs of individual customers to transfer money from one place to another within a day or two.

2.4.3 Mobile Banking (M-banking)

Mobile banking is a system that allows customers of a financial institution to conduct a number of financial transactions through a mobile device such as a mobile phone or personal digital assistant (Pousttchi, 2003).

In most countries, retail payment systems have been dominated by banks whose primary function in the most basic sense is to gather deposits for deployment in loans and other permissible investments. Financial institutions have the opportunity to add value to customer depository services with the addition of mobile technology and realize customer retention benefits as a result. Financial institutions are best positioned to employ risk management programs that ensure regulatory compliance for money laundering and other risks.

In March 2007, Safaricom mobile operator launched the mobile money transfer system, the M-Pesa. Since then the mobile payment system has become popular with both the banked and the unbanked population. Business operators in Kenya have adopted the use of the mobile payments as a way of transacting their business because of the relative affordability of mobile phones and the mobile banking services they offer.

There is appeal and utility of mobile banking and mobile payment services across the country as there are probably more people with mobile handsets than with bank accounts (Porteous, 2006). In December 2012, Safaricom in conjunction with Commercial Bank of Africa, launched Mshwari platform. M-Shwari is the revolutionary new banking product for M-PESA customers that allow users to save and borrow money through their phone while earning interest on money they save. With M-Shwari, users are also entitled to affordable emergency loans.

The mobile payment providers' agents are well distributed and easily accessible to the micro-business owners for support of their services in Kenya. It is also easy for the micro business operators to control their mobile phone accounts as they can access their accounts any time (Business Daily, January 12, 2009).

2.5 Benefits and Profitability of e-banking

Technology (IT) offers banks the potential to dramatically reduce operating costs and improves the quality of management information hence making banking more profitable. The following are some benefits attributed to e-banking according to Octavian and Daniela, (2004):

Revenue from transaction fee - The Internet enables institutions to realize new revenue streams through service and transaction fees charged to home banking users. These fees enable the institution to offset much of the expense incurred to provide the service. Institutions can tap into an additional source of revenue streams by providing cash management services to wholesale/commercial customers. Once the Internet-based cash management system is in place, the institution has the ability to readily cross sell other value-added business services to business customers, e.g., payroll, direct deposit and bill payment, as well as other e-commerce offerings through the portal, such as brokerage, investment, insurance and credit services and retirement planning.

Cross selling - This is the most promising area for revenue growth for financial institutions. New customers are attracted to an institution through ease of use and the

range of services they can get from one stop on the Web site. Based on empirical industry evidence, institutions attain 10-15% more new proprietary account relationships with an online channel vs. offline channels.

Customer retention - As the full range of services is made accessible on the institution's Internet banking web site, existing customers will be more likely to stay with the institution and new customers will be enticed to join. On-line customers are more likely to become captive users of multiple services, as a result of the "stickiness value" of the institution's Internet banking Web site. Numbers collected from the banking industry show that a customer uses Internet banking and, in particular, customers using electronic bill payment are far more likely to remain customers of their bank.

Lower marketing and customer acquisition expenses - Financial institutions launching home banking and other online services can enjoy a substantial decline in marketing costs by using the Web site as an advertising medium to offer a one-stop shopping experience with easy, seamless access to additional financial services. Further, customer satisfaction surveys can be easily implemented online to give the institution a relatively easy and efficient way to measure its performance and to respond quickly and effectively with better tailored solutions to specific customer needs.

On-line lending - incremental volume generation - On the consumer side, institutions that use on-line lending applications experience incremental increases in volume of applications from ease of use.

2.6 Empirical studies on e-banking and financial performance

E-banking is transforming the banking and financial industry in terms of the nature of core products /services and the way these are packaged, proposed, delivered and consumed. It is an invaluable and powerful tool driving development, supporting growth, promoting innovation and enhancing competitiveness (Gupta, 2008). Banks and other businesses alike are turning to IT to improve business efficiency, service quality and

attract new customers (Kannabiran and Narayan, 2005). Technological innovations have been identified to contribute to the distribution channels of banks and these electronic delivery channels are collectively referred to as electronic banking. The evolution of banking technology has been driven by changes in distribution channels as evidenced by automated teller machine (ATM), Phone- banking, Tele-banking, PC-banking and most recently internet banking (Chang, 2003).

Electronic banking has experienced explosive growth and has transformed traditional practices in banking (Gonzalez, 2008). As per prediction of Maholtra and Singh, (2007) the e- banking is leading to a paradigm shift in marketing practices resulting in high performance in the banking industry. Delivery of service in banking can be provided efficiently only when the background operations are efficient. An efficient background operation can be conducted only when it is integrated by an electronic system. The components like data, hardware, software, network and people are the essential elements of the system. Banking customers get satisfied with the system when it provides them maximum convenience and comfort while transacting with the bank. Internet enabled electronic system facilitate the operation to fetch these result.

Joseph and Stone (2003), in their paper, explored that customer friendly technology such as ATM, internet banking and telephone banking has been used by the banks to reduce the cost of providing services, and to increase the customer loyalty and market share. Technology plays a vital role in delivery of banking service. The study highlighted that access, location, security and ease of use of ATM machines appears to be the most important component for banking customers for the adoption of e-banking.

However, banks should emphasize more on providing speedy and efficient service to the customers. Further, bank managers should conduct periodic marketing studies to understand the level of technological services by the customers so that adequate service could be delivered at the right time.

Lustik (2004), in his study, tried to assess the profitability of electronic banking services for the banks. In order to analyze the cost structure for traditional and electronic channel

transactions, the author explored the implementation techniques of activity based costing (ABC). The results of the study indicated that electronic channels provide cost saving for banks and their clients. The study revealed that with help of ABC technique, banks can reduce and regulate some costs. It was also found that the decrease in transaction costs after introduction of electronic channels was slower than expected as existing traditional channels could not be closed at the same speed as the new electronic channels were introduced.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the research design, data collection procedures, data collection instrument, data analysis and the limitation of the study.

3.2 Research Design

In order to look at the adoption and effects e-banking has on financial performance of commercial banks in Kenya, a case study design is more suitable to use. Case study refers to a detailed intensive study of a unit, such as a corporation or a corporate division that stresses factors contributing to its success or failure. Case study design allows for close examination of data within a specific context. A case study is done by giving special attention to completeness in observation, reconstruction as well as analysis of cases under study.

In this case, Diamond Trust Bank was the basis for this study. The specific department heads and bank managers provide necessary information which is useful in building conclusions on the issues that have previously been highlighted.

3.3 Data collection Instruments

Data for this study was collected from both primary (i.e. from interview guides) and secondary sources (i.e. from annual financial statements). Financial data for this study was obtained from Diamond Trust Bank. Primary data collection was through face to face interviews with key respondents from the bank. Emphasis was placed on 3 key respondents from the Cash Management Service department vested with provision of support and linkage of e- banking to clients as well as 4 selected branch managers.

In this study, portions of the data were obtained from annual financial statements and notes available in DTB library, Internet and websites. In order to increase reliability of

the findings, a combination of data from annual financial reports and interview guide were used.

3.4 Data analysis

The collected data was mainly analysed through content analysis owing to its qualitative nature. Content analysis may be described as a technique for making inferences by objectively and systematically identifying specified characteristics of messages. Content analysis is a summarizing, quantitative analysis of messages that relies on the scientific method.

First, case study research as a research strategy within qualitative social research is briefly presented. Then, a basic introduction to (qualitative) content analysis as an interpretation method for qualitative interviews and other data material is given. Finally the use of qualitative content analysis for developing case studies is examined and evaluated.

Further to description by Hartley (2004), “Case study research is a heterogeneous activity covering a range of research methods and techniques, a range of coverage (from single case study through carefully matched pairs up to multiple cases), varied levels of analysis (individuals, groups, organizations, organizational fields or social policies), and differing lengths and levels of involvement in organizational functioning”, case study analysis paired with content analysis sets to make derivative conclusions of subject at hand.

The researcher sought to find out the relationship between e- banking and performance of Diamond Trust Bank.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION OF FINDINGS

4.1 Introduction

The study intended to achieve one main objective: to determine the effect e- banking has on the bank performance as well as the shortcomings pegged to use of e- banking and effect on performance. This chapter will present findings of this study with regards to the objectives and discussions of the same. To achieve the objective, a total of eight (8) respondents were targeted; 3 from the respective department (C.M.S.) and 5 branch managers with response to be obtained from an interview guide.

4.2 General Information of the Interviewees

The study aimed to interview heads of the specific department as well as branch managers who are perceived to have the much needed information. The interview achieved an 87.5% response rate from the target respondents. Emphasis of department heads as well as branch managers was key in order to obtain crucial as well as information that may only be available to heads.

The length of service for the respondents was also a critical factor in order to gauge the level of experience as well as knowledge background. The information so received was thus very critical and crucial as well as reliable given the dimensions and scope of the interview.

Findings of the study will therefore be useful in assessing the e-banking as a tool in banking as well as analysis of the shortcomings of the various e- banking channels. The respondents all have championed e- banking whether directly to the clients or from a back office view that process client' requests from the e- banking channels.

In Diamond Trust Bank, the CMS (Cash Management Service) department is vested with the responsibility of sign up of new clients, amendment of their e-banking applications as well as effecting of transfers initiated via e-banking channels.

4.3 Effect of E- Banking on Bank Performance

The guide sought responses on the various forms of e-banking channels, the most commonly used, benefits attributed to their use, effect of e-banking on the branch/department as well as the feedback from the clients. The responses and analysis of the findings from the interviewees are as below.

4.3.1 Forms of e-banking and the common channel

The interviewees were asked of the various forms of e- banking and it was generally perceived that the bank has three main channels; mobile banking, online view facility as well as online transactional facility. Mobile banking is generally use of mobile phone to transact from their bank account. The facility is also linked to M-pesa hence allowing transfers to and from M-pesa.

Online view option on the other hand allows customers to view transactions in their accounts and also print statements. The transaction facility on the other hand allows customers to initiate transactions and have them authorized by a secondary party which is then pushed to a back office function of the bank for verification and ultimate transfer.

From the various interviews it was clear that mobile banking is the most common for clients. Though the reasons were undocumented, the reason for its popularity is the cost factor as well as convenience. Almost all the banked individuals have mobile phones, cost for use of the function is 200 shillings per month for the receipt of alerts in case of debits and credits in the account. Use of Mpesa function is however tiered as per Safaricom tariff.

4.3.2 Benefits attributed to e-banking, both to client and bank

It was generally felt that e-banking has various accrued benefits both to clients and the bank. Convenience was felt to be the most clear cut benefit to the clientele. The ease of access as well as ability to transact from the convenience of their houses, irrespective of the time of day was the most obvious advantage. This is also beneficial to the bank as it

helps in queue management, lessening the time used to serve customers in the banking hall.

Few of the respondents also expressed the fact that a bank that is technologically advanced tends to have a competitive edge in the market. It generally pays to keep abreast with the changes in the market in order to achieve ultimate customer satisfaction.

4.3.3 Effect of e-banking on the financial statement of branch/department

Use of e-banking channels by clients has an overall positive outcome to the bank's profitability. This was the general overview obtained from the respondents. What was clear is that the set up fees of the e-banking channels as well as maintenance cost make up a great part of the revenue earned. For the online transacting facility a customer is provided with tokens with security features and passwords. For corporates for example a token would be needed for the inputter of transaction e.g. the accountant and yet another for the director who is the authorizer of the transaction. A token attracts a one-time charge of 5000 which is replaceable at no cost when it is damaged. However loss attracts another charge of 5000 shillings.

A case was cited of a client that uses the online transacting facility to effect salaries every end of month. The client is a corporate account holder that does salary transfers to other banks via R.T.G.S. Salaries for his 100 staff would attract charge of 500 each which equates to 50,000. The best thing about clients uploading their own salaries is that, they take ownership as well as accuracy of transaction is heightened. Time taken by the bank to effect the transfers is also much shorter than what would have been taken if instructions were effected from the banking hall.

Effect on the bank statement may be monetary, but what was brought out from the interview was the effect e-banking has on staffing as well as time management. There is general reduction in staffing requirement following automation of transactions and time reduction in effecting of transactions.

4.3.4 Feedback from clients regarding accessibility and reliability

With any service industry, it is very key to take stock of feedback from clients. This is important in order to identify the areas of improvement. It is also important to note a disgruntled customer that voices his opinion is much better than the one that decides to walk away without speaking.

There are various ways to source for customer feedback e.g. through surveys, exploratory forms, one on one interviews or simply listening to the customer. What an organization does with the information so received is the distinction between effective and poor customer service.

The information received from the respondents indicated there has been both negative and positive feedback. For the positive, convenience was the main positive expression from the clients. Regarding the negative feedback, downtime of applications was a reason for general concern. Complaints of initiating transactions especially on mobile banking which would later fail or be reversed back to the client were prevalent.

From a survey conducted by KPMG in 2013, 19% of the respondents stated that a great bank of the future will have secure online banking. The young professionals of today will be significant revenue drivers of future banking. Their priorities and preferences are distinctive which implies listening and taking action today will influence future strategies.

4.4 Shortcomings of e-banking and effect on performance

Any technological backed initiative has to encounter challenges. The impact of these shortcomings on the performance is also a subject of concern. It is also important to find out how management deals with such.

Findings show that there are a number of shortcomings both to the clients and from the bank's point of view. Clients have been affected by system fluctuations which have in effect affected accessibility of services. With regards to the bank, there was expressed disconnect between clients and bank. Client – bank relationships may be severed due to

the lack of personal and physical contact. The aspect of competition in the industry also comes into play with customers constantly comparing across based on costs, services rendered as well as reliability of channels.

Another aspect of concern was effect of shortcomings on bank performance. The irregularity of reliability of systems has the effect of time wasting. There is a constant back and forth u in trying to explain as well as sort customer issues. Negative publicity may also have an impact on performance. In extreme cases the customers opt to terminate the e-banking services and close their accounts altogether.

The management is believed to have played its role in supporting technological advancement especially with the recent core banking system upgrade that also saw a beef up of features with the e banking platforms. It was however felt that a close look should be taken to ensure system errors and downtimes are minimized.

Recommendations of ways to improve efficiency were such as training of both customers and staff on new features, liaison with other partners like Safaricom to decrease downtime and testing of new features before roll out to mitigate failures in new applications.

4.5 Discussion of Findings

As captured in Vision 2030, Kenya is moving towards a cash-lite economy through opportunities presented by mobile money. The CBB (Centre for Branchless Banking) is involved in some of the most innovative developments in the market while supporting a wide range of partners including banks, telecommunication companies and investors. It is in this regard that adoption of mobile banking services by most banks came to be being.

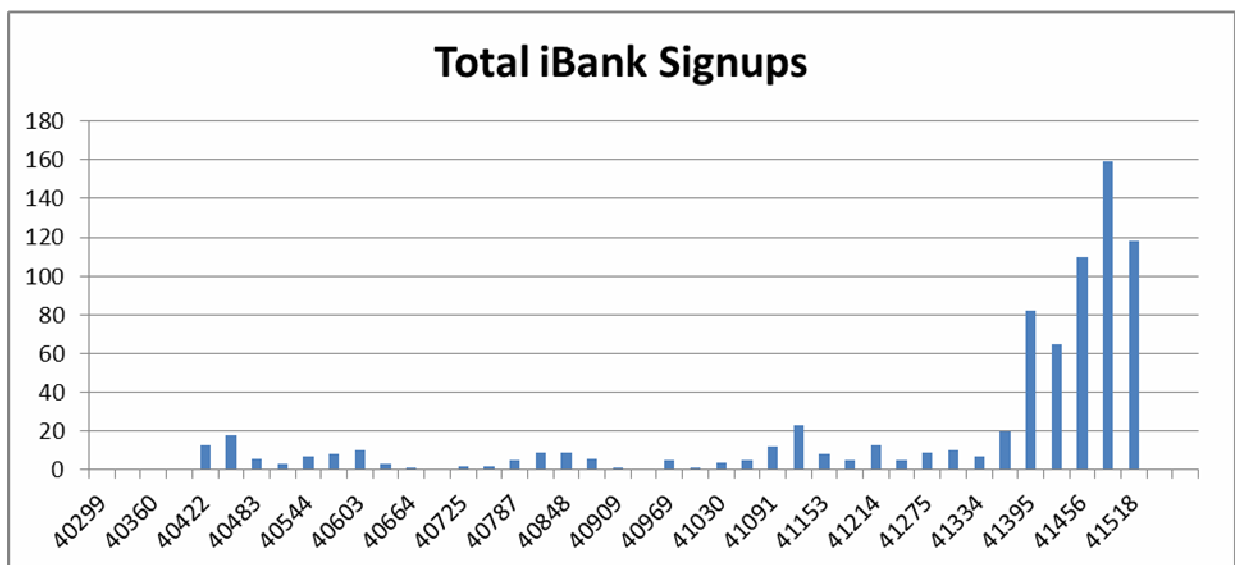
Diamond Trust Bank started its journey towards e-banking in early 2010. Mobile banking was the first one to roll out followed by electronic statements and then came internet banking enabled with the transactional input facility. There were partnerships with vendors as well as mobile service operators to facilitate service delivery.

The e-banking channels have been successfully adopted by clients slowly at the commencement stage but gradually became generally acceptable. The fear of security was the main concern with fear of hacking clouding clients' minds. The beef up of security features such as secure passwords with specific login credentials served to increase customer confidence.

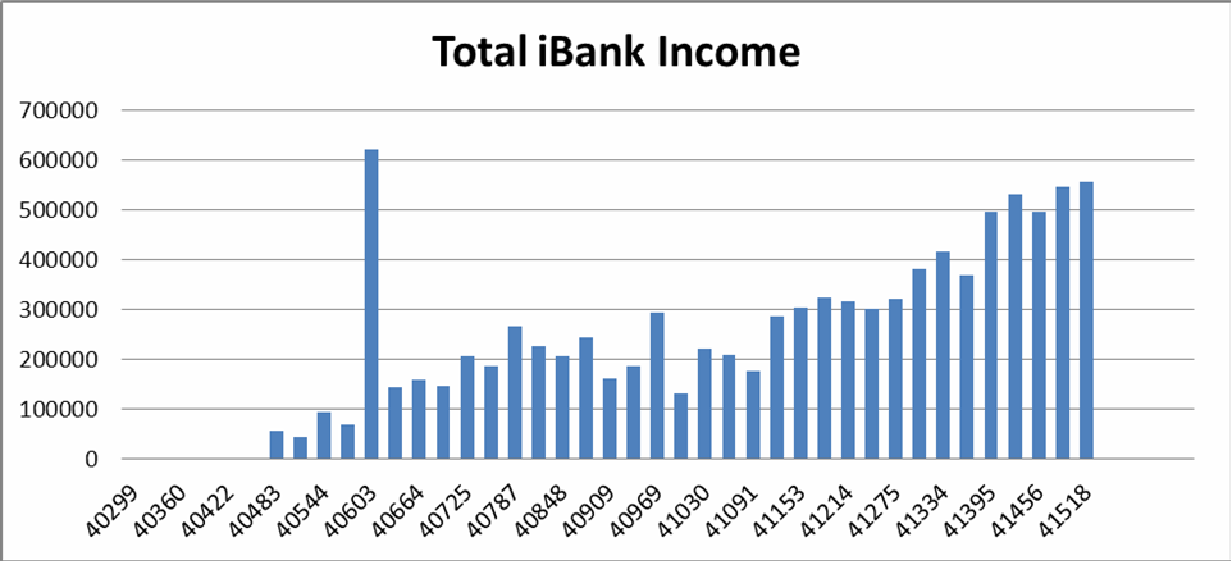
The guide sought to find out the correlation between e-banking channel use and effect on performance. From the respondents interviewed the perception was rather similar. What was communicated was that there is a positive relationship between use and performance. Increased use and subscription to e-banking channels has a positive outcome to bank performance as it shows customer confidence in the products. It also serves to increase revenue from the transactional charges.

The bank management has also been pegged with responsibility of customer feedback correlation as well as acting on the feedback to find solutions and implement them. It is also the role of management to continuously research on technological advancements as well as keeping abreast with what the competition is offering. This serves to enhance customer service delivery as well as creating a niche in the market.

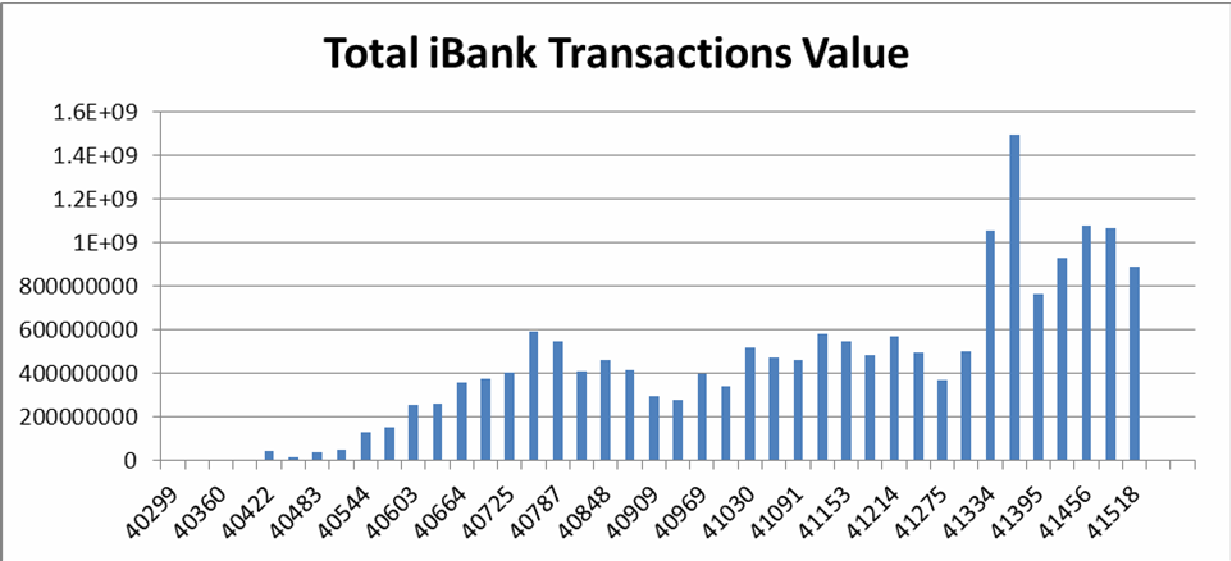
Analysis of findings is aided by use of graphs that show the I bank transactions vis a vis the income so derived.



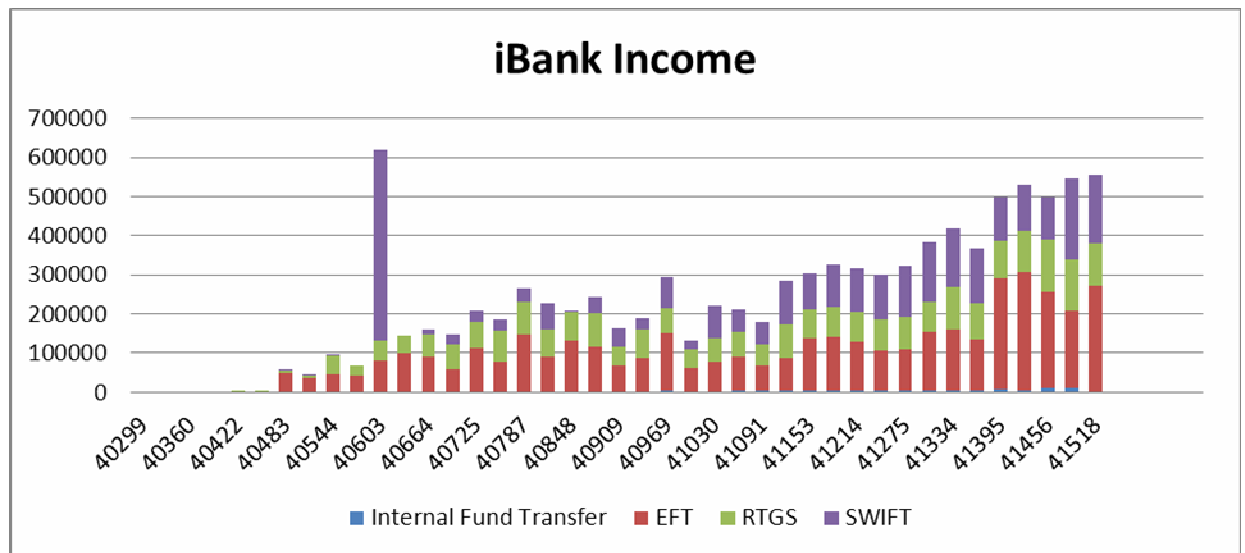
| | <i>Apr-13</i> | <i>May-13</i> | <i>Jun-13</i> | <i>Jul-13</i> | <i>Aug-13</i> | <i>Sep-13</i> |
|----------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <i>iBank Signups</i> | 21 | 84 | 67 | 111 | 160 | 122 |



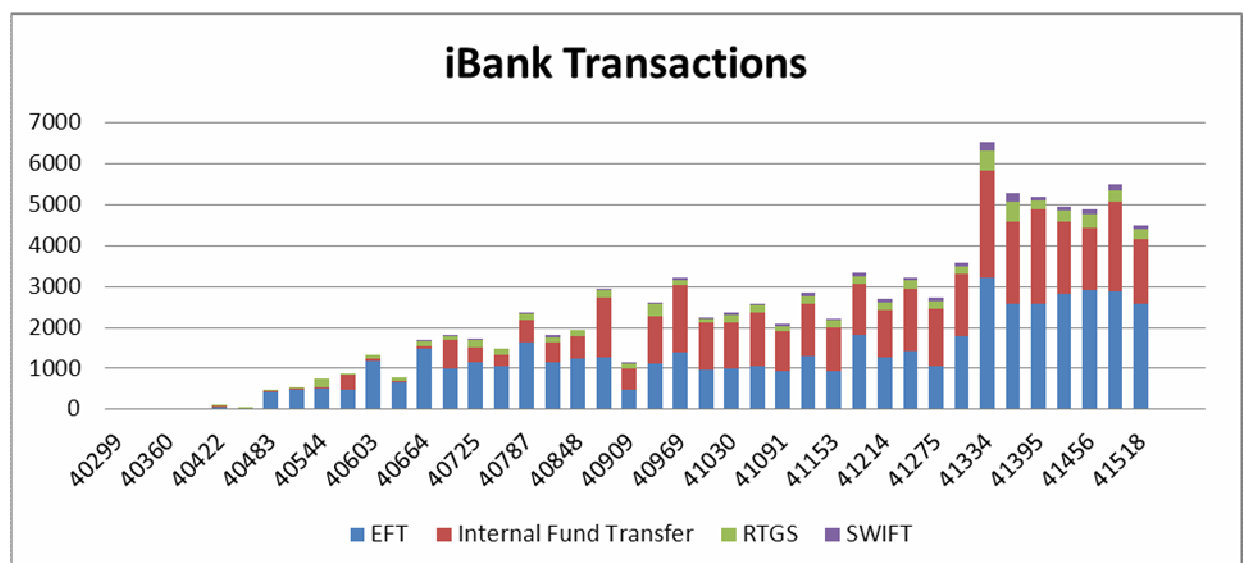
| | <i>Apr-13</i> | <i>May-13</i> | <i>Jun-13</i> | <i>Jul-13</i> | <i>Aug-13</i> | <i>Sep-13</i> |
|---------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <i>iBank Income</i> | 369,110 | 497,940 | 531,040 | 496,775 | 545,925 | 556,775 |



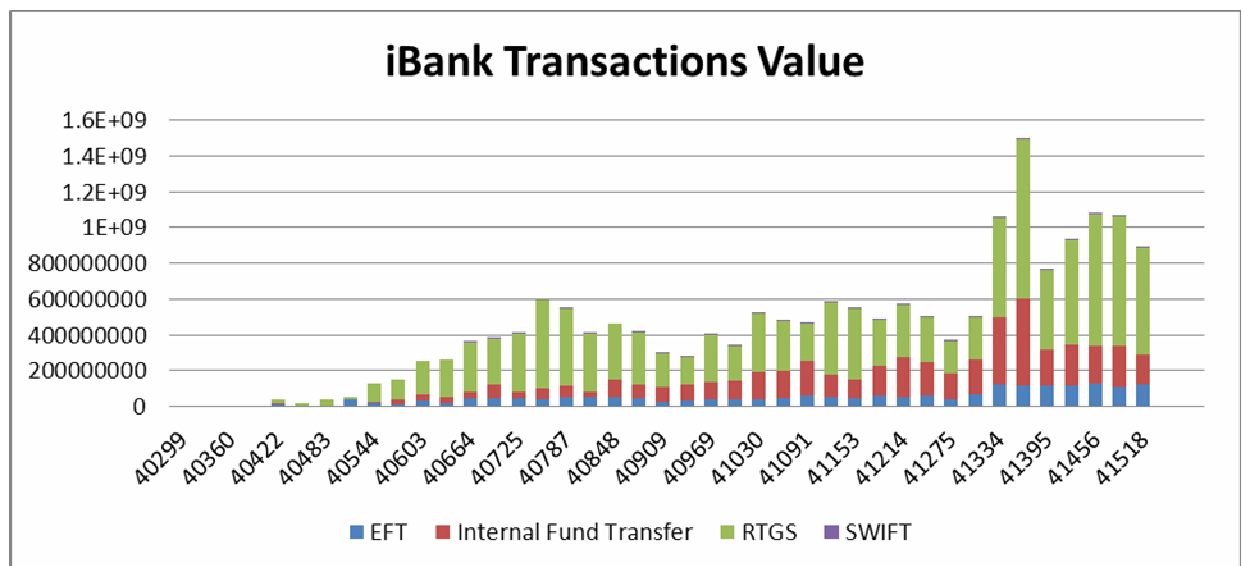
| | <i>Apr-13</i> | <i>May-13</i> | <i>Jun-13</i> | <i>Jul-13</i> | <i>Aug-13</i> | <i>Sep-13</i> |
|--------------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <i>iBank Txns Values</i> | 1,498 | 762 | 930 | 1,079 | 1,065 | 888 |



| | <i>Apr-13</i> | <i>May-13</i> | <i>Jun-13</i> | <i>Jul-13</i> | <i>Aug-13</i> | <i>Sep-13</i> |
|---------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <i>IFT Income</i> | 4,440 | 6,270 | 4,560 | 9,720 | 9,900 | 0 |
| <i>EFT Income</i> | 129,720 | 284,420 | 302,180 | 246,555 | 198,710 | 270,900 |
| <i>RTGS Income</i> | 93,600 | 94,450 | 106,200 | 134,650 | 130,165 | 110,225 |
| <i>SWIFT Income</i> | 141,350 | 112,800 | 118,100 | 105,850 | 207,150 | 175,650 |



| | Apr-13 | May-13 | Jun-13 | Jul-13 | Aug-13 | Sep-13 |
|------------|--------|--------|--------|--------|--------|--------|
| IFT Txns | 2,030 | 2,296 | 1,783 | 1,544 | 2,201 | 1,575 |
| EFT Txns | 2,566 | 2,593 | 2,814 | 2,902 | 2,884 | 2,583 |
| RTGS Txns | 470 | 211 | 257 | 318 | 275 | 238 |
| SWIFT Txns | 210 | 94 | 98 | 117 | 124 | 112 |



| | Apr-13 | May-13 | Jun-13 | Jul-13 | Aug-13 | Sep-13 |
|-------------------|--------|--------|--------|--------|--------|--------|
| IFT Values ('m) | 491 | 205 | 230 | 206 | 224 | 169 |
| EFT Values ('m) | 115 | 115 | 115 | 130 | 113 | 124 |
| RTGS Values ('m) | 891 | 442 | 585 | 742 | 727 | 595 |
| SWIFT Values ('m) | 1 | 0 | 0 | 0 | 1 | 1 |

The highest transaction earners are swift based on the cost structure below;

Monthly access fee –NIL

> IFT – Trade (30/=) Salary (Free)

- > EFT – Trade (150/=) Salary (100/=)
- > RTGS – Trade & Salary (500/=)
- > Swift – 1,500/=

Token Charges Kes 5,000/= (one off).

It is also good to note that most high value transactions are R.T.G.S. which shows increased customer confidence in transacting and making remittances both locally and internationally.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The study intended to determine the effect e- banking has on the bank performance. This chapter will present summary of findings, conclusions of the study as well as recommendations for the same. To communicate this; interviews from a total of eight (8) respondents were targeted; 3 from the respective department (C.M.S.) and 5 branch managers. Their responses have been a guide in making a summary, conclusions and recommendations in this chapter.

5.2 Summary of Findings

Both primary and secondary data was used for this study. The main source of findings relied on questionnaires with further information received from financial analysis of internal reports. The findings thus have a personal inclination aspect to it, whereby respondents' perspective on subject matter has to be relied on. The scientific aspect that shows actual figures serves to back up information provided.

What comes across is that there is general increase in number of signups for the e-banking channels, increase in transaction volumes and also increased income from transactions. It is also from the findings that we discover that there is a remarkable increase in mobile banking signup at agencies with the agency income mainly stemming from mobile banking transactions.

Just from July 2013 to September 2013 agency income from mobile banking has increased from below 10,000 to slightly above 50,000 considering that it is a relatively new product.

It is also clear that using I-bank the most performed transactions are Electronic funds Transfer, Internal Funds Transfer (I.F.T.) with R.T.G.S and Swift being in low numbers. However the highest income earners are mainly E.F.T and Swift. R.T.G.S instructions however had very high value items as compared to the other transactions effected.

In general the bank staff interviewed felt that e-banking was both useful and beneficial to both client and bank with the main shortcoming being system downtime for both mobile and online banking transactions.

5.3 Conclusions of the Study

The study has come to the conclusion that indeed e banking is vital in commercial banks and the effects on performance are vast. The study has also shown the reliance of I.C.T. on the adoption as well as use of the various e-banking channels. It is clear that today customers enjoy very convenient banking services which if doubled with speedy delivery ensure efficiency of service.

It is in this regard that has since seen a large investment in large sums of money in I.C.T. In the same light banks are seen to be very discriminate in their choice of internet banking software, banking vendor as well as bill payment provider in order to ensure efficiency of systems.

In conclusion, management has to introduce proper feedback mechanisms in order to effectively manage customer expectations. The bank is also set to benefit in increased revenues if customers are happy as they will transact more and even offer free advertising to others.

5.4 Recommendations of the Study

For the banks to maximize utility of the e-banking channels, it is imperative that they invest well in systems that are reliable and fast. The relationships with the vendors and mobile subscriber support should also be enhanced in order to ensure smooth flow of operations. Adequate investment ought to be placed on the I.C.T. sector to enhance the system delivery.

D.T.B. can also research and see what other banks in the same tier are offering and compare with their e-banking channels and evaluate areas of improvement.

5.5 Limitations of the Study

This study faced a limitation of time. A better and more comprehensive study could have been done if more time was available. Interviews took more time than anticipated due to the nature of the target respondents. Being heads of departments in the organization, they were frequently in meetings and planned interviews had to be rescheduled. Staff at lower level who are also vital to this study were not involved; therefore the study might not be a reflection of the real situation on the ground. There might therefore be need to validate the research findings with staff at these levels.

5.6 Suggestions for Further Study

This study sought to find the effect of e-banking on Diamond Trust Bank. Similar studies should be carried out in other financial institutions especially commercial banks. In-depth studies can be carried out to show how to maximize on the e-banking channels to maximize full potential of banks. Yet another area of interest is the increase of agency banking and their contribution to adoption and use of e-banking channels.

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APPENDIX I : LETTER OF INTRODUCTION

APPENDIX II: INTERVIEW GUIDE

This guide seeks information on the effects of electronic banking on the performance of Diamond Trust Bank. I would highly appreciate if you can respond to the below questions as briefly and accurately as you can. Your answers will remain anonymous and strictly confidential, and will be used solely for academic purposes.

SECTION A: PERSONAL DETAILS OF RESPONDENT

- a) Interview date.....
- b) Department.....
- c) Position in the organization.....
- d) Years of service at DTB.....

SECTION B: EFFECT E – BANKING HAS ON BANK PERFORMANCE

- 1. What forms of e-banking are available for use by clients?
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- 2. What form of e- banking is most commonly used by clients?
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3. What benefits can be attributed to use of e- banking? Both to the client and the bank

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4. What effect does e-banking on the financial statement of your branch/department?

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5. What feedback have you received from clients regarding accessibility and reliability of the e-banking channels?

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Section C: Shortcomings of e- banking and effect on performance?

1. What are the shortcomings of using e-banking? Both to the client and the bank

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2. What effect do the shortcomings have on bank performance?

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3. In your opinion has management provided necessary support in form of technological advancement?

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4. What measures can be further taken to enhance efficiency and effectiveness of delivery?

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Thank you for your time, co-operation and contribution to this study.