AN ANALYSIS OF DIGITAL PAYMENT SYSTEMS ON THE FINANCIAL PERFORMANCE OF COMMERCIAL BANKS. A CASE OF FBC BANK LIMITED

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DEDICATIONS

I dedicate this project to my family and friends. Much appreciation goes to my parents, brothers and sisters for making my academic endeavor endurable and intriguing through their never-ending support.
ACKNOWLEDGEMENTS

It is often said that “no man is an island unto himself” and hence this major undertaking and compilation of this research project could have never been a success without reference to the work, contribution, encouragement and support of many individuals whom I acknowledge my indebtedness. This dissertation is the result of the combined effort of many patient and dedicated people. In this respect I want to extend my special thanks to my supervisor for the expert support in all aspects of this dissertation. His contribution to this research went beyond mere academic duties to include more parental and brotherly support. I am sincerely grateful to his support for all the resources both mental and otherwise which she contributed to my research. A reserved acknowledgement goes to my beloved family especially my parents and my siblings for all the financial and moral support as well as their unwavering support and undying love. I also want to specially thank my friends who always pushed me to be the best in all I do. May the almighty Lord Jehovah richly bless you.
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<th>ACRONYMS</th>
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ABSTRACT
This research was conducted to evaluate the impact of Digital Payments System on the financial performance of FBC bank limited using FBC Bank center branch in Harare Zimbabwe. The objectives of the study were to identify factors used to measure the impact of DPS, on the financial performance of commercial banks, to identify the contribution of each factor on the impact of DPS, formulation of multiple liner regression equation and finding a solution to the model and to give relevant recommendation. The researcher formulated a non-experimental design and simple random sampling procedures were used. Secondary Data from previous year’s annual reports were used, and purposive and simple random, data was later analyzed and presented as a report.

The research shows that FBC Bank uses a wide range of digital products which includes credit cards, mobile banking, and point of sale of machine, master Cards, internet banking and electronic funds transfers among other platforms. The researcher also identified benefits that are associated with the DPS to FBC Bank limited which includes reduced manual labor, easy maintenance of customer information, and maximum customer satisfaction due to the reduction of human error. Research findings on the effectiveness of digital banking platforms used by FBC Bank shows that the services bring convenience to clients, the clients can easily transfer funds from one bank out to another bank with minimal challenges and the DPS have effectively brought convenience to clients. However, the profitability of the commercial bank has been affected the cost of setting up electronic banking infrastructure, lack of more skilled work force to uptake the use of the technological systems. Also, the correlation between digital payments and financial performance shows a positive relationship

The study also made recommendations on, the magnitude sensitization of the client on the use of DPS, the financial innovation of banks by introducing more electronic banking platforms, to make banking experience easier and a reduction in over dependency of a cash-based economy and also recommendation of further studies of about digital banking and electronic channels.

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Chapter I

Introduction

This chapter comprises of the background of the study, the problem statement, the objective of the study, research questions, scope of the study, and statement of hypothesis and significance of the study.

Background of the study

The study is about the impact of digital payment systems and financial performance of commercial banks in Zimbabwe with the focus on FBC Bank Limited. The study is relevant given the fact that in Zimbabwe, the use of electronic banking as a system if improved cash management and financial performance is new for both FBC Bank Limited and the target clients.

Digital payment system is defined as the automated and smooth conveyance of traditional and modern banking services through electronic and communication channels (Elliot and Suzan S 1998). Digital payments systems are made up of channels that clients use to access accounts, transact business and obtain information through networks, including the internet (Elliot and Suzan S 1998). In Zimbabwe all Banking institutions have adopted the use digital payment systems, the banks include FBC Holdings, Barclays Bank, ZB Holdings, CBZ Holdings, Steward, and NMB to mention a few. (RBZ 2018)

Modern day business environment is extremely dynamic and it is characterized with rapid changes as a result of technological advancements has increased awareness and demands for banks to bring convenience to their clients (Grey Elliot 2004). The 21st century banking industry is operating in a high magnitude competitive environment characterized by drastic changing conditions and high unpredictable economic environment. Information and communication technology (ICT) are the heart of digital payment systems (DPS) in Zimbabwe today. DPS and information systems play a crucial role the current banking system and in today’s banking set up greater percentage of revenue is generated through electronic channels and management of financial should invest more in digital systems. (Grey Elliot 2004),
According to Chu Mei Liu (2002), DPS are becoming central to online business process innovation as companies look for ways to bring convenience to clients faster, at affordable costs and also in the comfort of their homes. DPS’ are being used market wide in insurance, air ticketing, banking, retail, health care, online markets and even government institutions. DPS have many advantages compared to the conventional clearing house and banks are now using DPS to facilitate payments and settlement. Value attributes of DPS includes secure payments, costs cutting, and payment on due date and easier cash management compared to conventional systems. Financial institutions all over Zimbabwe have invested large amounts of money in implementing electronic banking service with the objective of improving customer service. El-Markazi (2005). The development of digital payment systems is expected to decongest banking halls and condense long queues in banking halls. The payments industry in Zimbabwe has over the past few years been changing drastically with new wave of digital financial products merging into the market. Transacting with hard cash has being replaced with digital wallets, ATM cards, mobile banking, internet banking and point of sale machines among other platforms According to Reserve Bank of Zimbabwe (RBZ) monetary policy statement, Zimbabwean banks have exponentially embraced the use of ICT, to accelerate the provision of financial services which has influenced the adoption of Digital payments systems. The adoption of ICT concepts, policies and implementation strategies to banking services has become a subject of ultimate importance and concern to all banks and global and competitor banking Gray (2004). The advancement in technology has played an important role in improving service delivery standards in the banking industry. In its simplest form, Automated Teller Machines (ATMs) and deposit machines now allow consumers carry out banking transactions beyond banking hours. (Burton, 2005).

1.2 Company Profile

FBC is a subsidiary of First Banking Holdings Corporation Limited now known as FBC Holdings Limited. It’s a diversified financial institution which offers a range of financial services to the public such as insurance, commercial banking, mortgages, mobile banking, internet banking and investment banking. FBC Holdings limited has many subsidiaries which are FBC Bank Limited, FBC Reinsurance, FBC securities, FBC Building society, Eagle Insurance Company Limited and micro plan Financial services Private Limited.
FBC bank Limited is a large commercial bank in Zimbabwe, serving large corporate clients, upscale retail customers, and medium to large business enterprises. FBC bank Limited is on a mission of digital transformation, and has already established electronic banking which has a number of services that include internet banking, mobile moola, mobile point of sale machines (QIK), MasterCard services, instant cards, among other services. The study explores DPS and their impact on the financial performance of commercial banks and the researcher has chosen FBC Bank Limited Center Branch because of its accessibility.

1.3 Problem Statement

In the recent past, there has been a huge shift in the use of electronic payment systems by banks in Zimbabwe. However, this new venture of using electronic systems is costly to launch, maintain, and manage. Therefore, there was a need to investigate whether electronic banking has any impact on the financial performance of banks by conducting an analysis of whether the increase in cost and the possibility of eventually having less personnel has had any positive impact on the financial performance of these banks. Several studies have been conducted in Zimbabwe to highlight these performance, but they have not been able to show clearly how these costs of setting up digital banking equipment have contributed to the performance of commercial banks. This study therefore seeks to show an overview of how digital payment systems have impacted on the financial performance of commercial banks by highlighting the key factors to indicate whether the bank is making profits or losses and if its customers are being satisfied by the services being offered. The system has not solved the growing problems per second but has accelerated the funds outflow system as a result of the cost and investments a bank incurs to setup and maintain the technical and electronic infrastructure, workers training, and to prepare electronic banking environment where banks can digitally operate. As much as digital banking offers so many services that a human teller cannot do, digital banking on banks profitability is negative in the short run. This is as a result of the cost and investments the bank incurs to setup and maintain the technical and electronic infrastructure, train their workers to be skilled and competent, and prepare an electronic banking environment where banks can electronically operate. Despite the need by the Reserve Bank of Zimbabwe to provide fast, convenient, reliable, and secure domestic payments and collections, the system has. It was therefore upon the above problem that the researcher was to find out the relationship between electronic banking and financial performance at FBC bank limited.
1.3 Research Objectives

The overall objective of the research is to conduct an investigation on the impact of digital payments system on the financial performance of FBC bank limited. Specifically, the study sought to achieve the following.

I. To identify factors used to measure the impact of DPS on the financial performance of commercial banks
II. To identify the contribution of each factor on the impact of DPS
III. Formulation of multiple linear regression equations
IV. Finding a solution to the model and give relevant recommendations

1.4 Research Questions

The study sought to provide answers to the following questions

I. What are the factors that are used to measure the impact of DPS?
II. What is the contribution of each factor on the performance of banks?
III. What is the regression equation that can be used to measure the impact of DPS?
IV. Do the banking services offered electronically have any significant impact on the bank’s financial performance?

1.5 Statement of Hypothesis

In line with the specific research questions and objectives the study tested the following hypothesis

\[ H_0: \text{Digital payment systems have no impact on the financial performance of commercial banks} \]
\[ (H_0 = 0) \]

\[ H_1: \text{Digital payment system has an impact on the financial performance of commercial banks} \]
\[ H_1 \neq 0 \]
1.6 Significance of the study

The aim of the study is to help to fill significant gaps in knowledge about digital payment system gaps in the banking landscape of Zimbabwe, the study findings are expected to be great importance to the following groups of people/ stakeholders.

1.6.1 Scholars

The study will assist students understand the different types of digital finance and its effects on the financial performance of commercial banks. Scholars will be able to know the evolution of digital payment systems in Zimbabwe and the changes that have been taking place due to the introduction of electronic banking in Kenya. The channels used by various banks to carry out electronic banking will also be discussed in the study.

1.6.2 Government

The study will provide the necessary data to the government to help them in policy formulation and a measuring performance of the current policies. It will also enable the government to control its finances efficiently hence efficient regulators.

1.6.3 Banks

The study will create benchmark for measuring the contribution of DPS on its financial performance. Banks will also be able to bring quality convenience to its clients and also creating conducive environments for investments.

1.6.4 FBC Bank Limited

The research will help the bank to appreciate the role of electronic channels and DPS, on its financial performance, to improve on their digital banking and financial performance accordingly if they adopt the recommendations highlighted.

1.6.5 Clients

Clients will be able to know where the Banks are lagging in terms of adoption of DPS and in providing different products and services. The study will also create a standard of performance
measurement for clients to evaluate the convenience of DPS. Bank customers will be able to carry out their transactions from the comfort of their houses or workplaces hence saving on time and resources. Consumers will also gain an advanced understanding of how to carry out bank services using electronic banking.

1.6.6 Bindura University
The research will be available in library of Bindura University of science Education and will be used by other future researchers. Researchers will be able to add to their research work about DPS, and gain a better understanding on this field. The findings of this study can be used in future as reference material.

1.6.7 Scope of the study
This study is focused on the impact of digital payment systems on the financial performance of commercial banks, it focuses on the types of electronic banking used by FBC Bank, the impact of digital banking systems on the financial performance of FBC Bank limited, and on the challenges of digital banking to FBC Bank. The study based its investigation at FBC Bank center branch in Harare.

The study covers the financial statements of FBC Bank for the one-year period. This period was chosen because of electronic payment playing big role to financial institutions. The period was associated with high volumes electronic payments due to cash shortages and liquidity crunch in the Zimbabwe economic environment.

1.7 Assumptions

- Pertinent authorities will be helpful and co-operative in permitting access to information
- Unbiased and more accurate interpretation of the results
- There are no discernible trends in the secondary data

1.8 Delimitations of the Study
The research confine on the analyzing the impact of DPS on the financial performance (measured by profitability) of commercial banks. I focused on one FBC bank in Harare. The predictive
analytics of financial performance of FBC bank in Zimbabwe. Lastly the period of study spanning from 2017-2018

1.9 Limitations of the study

1.9.1 Time constraint
This is a major constraint and hindrance to the researcher. The time allocated to carry out the research is too short that they is need to reduce the geographical scope and come up with a time plan which will indicate the time that will be spent when executing each task since failure to that the researcher won’t be able to complete the research on time.

1.9.2 Population
Zimbabwe has a large population thus it cannot be covered in the prescribed time. Therefore, the research will need to use a sample to overcome this constraint.

1.9.3 Financial constraint
This is a key challenge requires budgetary skills so as to carry out research within the available budget. There is also need for the researcher to reduce the scope of the study which will help to reduce or cut down costs.

1.9.4 Hostility of the respondents
This challenge includes withholding information or providing data which misled the researcher. To overcome this constraint the researcher clearly outlined the purpose of the research and the benefits that can be derived if the research is carried out to completion. The researcher also to reassured the respondents of confidentiality.

1.10 Definition of terms
1.10.1 Performance
According to Fitzgerald (1991), performance entails effectiveness which refers to the firm’s ability to produce and serve what the market requires to produce and serve what the market requires at
particular time and efficiency which means meeting the objectives at the lowest possible cost with the highest possible benefit. In order to assess performance, the managers use actions designed to generate sustainable long-term improvement.

1.10.2 Financial Performance

Financial performance is a measure of how well a firm can use assets from its primary mode of business and generate revenue. This term is also used as a general measure of firms overall financial health over a given period of time and it is one of the major indicators of organizational performance. Organizational performance encompasses three specific areas of firm outcomes which are: financial performance (profits, return on assets, and return on investment), product market performance (sales, market share etc. and shareholder return (total shareholder return, economic value added).

1.10.3 Digital Finance

This refers to arrangement of some blend of money related and installment benefits that are conveyed and oversaw utilizing portable or Web advances and a system of specialists, as per the world bank (2015), computerized money related administrations allude to the utilization of advanced innovations (web, versatile correspondence innovation) to get monetary administrations and execute budgetary exchanges. Thus, digital financial services generally refer to the far-reaching technologies available to perform financial services from a widespread range of provider to an extensive category of recipients. This is possible by use of digital remote means including e-money, card payments and electronic funds transfers (Asian Development 2016)

1.10.4 Banking (Electronic banking)

Electronic Banking is a process where a customer may perform banking transactions electronically without visiting a bank. Electronic banking is defined as the automated delivery of new and traditional banking products and services directly to customers through electronic, interactive communication channels (Simpson 2002). The definition of e-banking varies amongst researches partially because electronic banking refers to several types of services through which bank
customers can request information and carry out most retail banking services via computer, television or mobile phone. Electronic banking can also be defined as a variety of following platforms: Internet banking (or online banking), telephone banking, TV-based banking, mobile phone banking, and e-banking (or offline banking).

1.10.5 Virtual Banks
Are those banks that do not have a physical branch or teller.

1.11: Conclusion
The first chapter laid down the background, statement of the problem, purpose, significance, limitations and delimitations. Objectives of the study and research questions were also highlighted in the first chapter. The researcher formulated some objectives in context with the background of the study. Consequently, the chapter draws a road map for the study. It stands as a gateway for next chapter that shall focus on theoretical literature and empirical observations in order to discover and scrutinize the mileage of past researches.
CHAPTER II

Literature review

2.0 Introduction
This chapter discusses the literature review of the study, the literature review provides the reader with the explanation of the theoretical rationale of the problem being studied, types of electronic banking as well as what research has already been done and how the findings relate to the problem at hand. The purpose of the literature review is to avoid unnecessary intentional or accidental duplication of material already covered. This literature review was reviewed from previous past major activities that had been undertaken to address the issues in electronic banking. The information was obtained from past reference material such as, newspapers, journals and the internet. Critical analysis was discussed and the research gaps established.

2.1 Theoretical Framework
Trochim (2006) states that theoretical frameworks act as a guide to the research, helps in defining the variables and the static relationship that infiltrate the focus of study, this includes direction for examining the data, and assists in choosing the appropriate research design. Theories evaluated in the research include the diffusion of innovation theory, coase theorem and Schumpeter theory of innovation theory.

2.2.1 Schumpeter theory of innovation.
Schumpeter (1954) argues that entrepreneurs create an opportunity of new profits by taking advantage of their innovations. Demand for new products that already exist in the market is decreased when innovation creates new products that enter into the market. The theory suggests that whenever entrepreneurs innovate and becomes prosperous, competitors in the market promptly imitate and adopt the same new product features so as to benefit from financial benefits as a result reducing the profit margin. However, Solow (2007), critiques the theory as a leading endeavor to capture a complete socioeconomic arrangement in a few grand simplifications.
Therefore given the context of digital payment systems, innovative digital payments systems will profit the society. Berger (2003) states these systems are beneficial because of their costs effectiveness and easy of transacting. The prospective if ease money transfers will increase the purchasing power and expand the market substantially.

2.2.2 Coase Theorem

The analysis of the economics and regulation of the digital payments systems requires a consistent framework within which the costs paybacks for different DPS, and the costs and benefits of regulations imposed on them can be evaluated. The theorem postulates that private DPS users, when they are no transactional costs and acting in their best self-interest, tend to reach transaction and asset distribution that maximize their combined private welfare. The other assumption of the Coasian theory is that transaction costs also includes the directing cost of transacting and costs arising from other asymmetry of knowledge between the parties involved in the transaction. The major weakness of the Coast theory is that, it is intrusive; it assumes that costless trading promotes adeptness in the market.

Digital payments systems costs are classified into two categories that is the direct costs and the information asymmetry costs and are exhibited in various in ways. Direct costs of retail payment instruments to transacting parties include the cost of creating the physical payment instrument and information asymmetry costs. According to Singh and Zandi (2010), eliminating the frictions and costs in industry would guarantee an efficient payment infrastructure and readily induces trade transactions.

2.2.3 Diffusion of Innovation Theory

Diffusion of innovation was introduced by Rodgers (1995), the theory highlights how the society receives, spread as well as adopt new ideas and innovations. The diffusion of innovation theory highlights how communication channels as well as the opinion leaders usually shape the data adoption process. Rodgers 1995 proposed a five stage model of implementing and adopting innovative ventures in organizations. The stages are compatibility, relative advantage, complexity and observability as well as trial ability. The major strength of the diffusion of innovation theory is that it takes into consideration the conditions in which people willingly decide to adopt a new system (Gallivan 2001). However the major noted weakness of DOI theory is that it was forwarded
for a more general course, as it derives its foundation from voluntarily adopted decisions that may not necessarily capture the art (Fichman 1997).

In the context of Digital payment systems, the DOI theory seeks to make an improvement on the availability of payment means, ease transactions and enhance efficiency in transactions processing. According to Columns (2009), empirical researches have shown a reduction in the cost of transacting owing to a massive distribution of DPS such POS and ATM.

2.3 Empirical Evidence

Gutu (2014) used descriptive research design to examine the impact of information communication technology on the performance of banks in Romania. The study sample was made up of 11 banks and an analysis was made from period 2003 to 2013. The independent variables of the study consisted of early adopting banks, number internet uses and online advertising. The results exhibited that Internet revolution brought convenience to customers and improved performance of banks. The study showed that ICT brought automation which results in a reduction of labor costs and downsizing the number of branches and also a reduction in the costs and time clients using banking services.

Krishma (2015) examined the impacts of ICT on the commercial banks in using descriptive research. She analyzed various technological advancements within the Indian banking sector that have been attributed to ICT in 2015 inform of telephone banking, ATMs and internet banking. The studies showed that the adoption of the ICT results in lowering costs, though the impact of profitability is constantly inconclusive due to the possibility of effects that results from a demand of skilled labor force, changes in the information system and the competition in financial services. The studies have highlighted that the three variables had a positive influence on the performance of commercial bank,

Hasan (2012) used descriptive survey to research on an integrated and comprehensive view of the importance of ICT on the retail payments for performance of commercial banks. The researchers conducted an assessment of digital payment system across 27 countries European Union markets. The study shows a relationship in regions with a better digital payment system such POS and ATM. ICT greatly impacts the way commercial banks conduct they business. Digital payments systems have a positive influence on the general performance of Jordanian banks.
Gichungu and Ololo (2015) conducted a study on the relationship financial performance and innovation of commercial banks in Kenya. They sample 43 commercial banks for a period of five years 2009-2013 using a descriptive survey research. Using the linear multiple regression to determine the relationship between the variables, the conclusion of the research was that the innovations of banks have a positive impact on the financial performance of commercial banks.

Internet bankers are the most profitable and wealthiest to bank (Robinson 2000, Nyangosi, 2006) Digital payment system thus offers many benefits to the banks as well as customers. However in global terms the majority of private are still not using electronic banking channels. There are a number of reasons behind this. Foremost customers need to have strong internet access in order to utilize the digital systems, user also needs to be educated on how to use the system. Secondly non users of DPS complains that the DPS has no social dimension, that is they is no face to face interaction with the branch or the financial institution and finally the customers have been concerned and afraid of security issues that surrounds the digital systems.(Sthye 1999). However they have been drastic changes in the situation as the electronic banking channel has shown to be safe to use and no misuse has been reported by media in the Finland. Digital banking continues to influence banks activities, revenue streams and their cost center.

Simpson (2002) highlighted that digital payments systems are driven largely by the scenarios of operating costs maximization and operating revenue maximization. A comparison of online banking in developed and emerging markets showed that in developed markets lower costs and higher revenues are more evident. A study conducted by Sullivan and Richard (2000) shows that systematic evidence of internet banking in USD brick and mortar banks. Studies also shows that federally chartered USA banks had a positive higher return on equity (ROE) buy using the click and mortar business model. They also did an assessment on the elements of internet banking adoption and observed that more profitable banks adopted internet baking after 1998 but yet they were not the first movers. Jayewardene (2002) argues that internet banking results in the costs and efficiency gains for banks and yet very few banks had adopted the system and only a little more than half a million customers were online in UK. Nader (2011) examined the profitability of the Saudi Arabia Commercial banks during the period of 1998-2007. The outcome of the study showed that the availability of mobile banking, number of ATMs and number of branches had a positive impact on financial performance of Saudi banks. However the results showed that the number of
point of sale terminals (POSs), availability of PC banking and availability of mobile banking did not contribute to the financial performance.

Kariu.ki (2005) conducted a researched titled “six puzzles in Electronic money and banking”, which showed the positive impact of ICT on performance of commercial banks using bank turnover and profits as measure of performance. The results of the research showed that banks with high profit growth are more likely to be using greater numbers of advanced of ICT facilities. He concluded that digital banking platforms leads to higher profits in the long run, as the short term is associated high ICT investments costs. Furthermore his study showed that digital platforms contributes to improved bank performance, in terms of increased market share, expansion of the product range, customized products and better response to clients’ needs as well convenience. According to Kariuki(2012), in his study on the effect of product development on the financial performance of commercial banks in Kenya concluded that new products developments has an impact on the financial performance of commercial banks in Kenya, however it was not the same was not statically significant. Yegon (2012) research on the impact of ICT investments on organizational performance at Kenya Commercial Bank group limited gave a judgment that the relationship was not very strong.

2.4 Analysis of performance of financial Institutions

2.4.1 Performance Measurement

Performance measurement is the process of regular and systematic data collection, analysis and reporting to be used by an organization to follow up the resources it uses, the results it obtained with the produced goods and services (Bamberger, 2003).

Kaplan and Norton (2002), performance of an institution can be examined by the use of the balanced scorecard (BSC), It measures and addresses other aspects that do not incorporate financial measurements but rather intellectual and intangible assets such as high quality services or top class clients which are key to the success of the business.

According to Dixon (2000), performance measurement main objective is facilitating employee development and for the following reasons: to provide feedback and guidance, to set performance goals, to identify training needs and to provide input for management of pay administration, reward
and promotion. The stages involved in effective performance measurement includes; identification of key performance areas and setting yearly objective for each performance indicator, identification of critical of attributes of effective performance, periodic review of performance and discussion of performance with employees and identification of training and development needs.

Performance evaluation is based is on facts and numbers, performance is measured by evaluating the assets and liabilities of the business from the balance sheet, an analysis of the cash flow to evaluate operating, financial and investing activities and the impact of these activities can be apprehended through income and expenses from the statement of income. A comparison of the debtor and the creditor values between past and present balance sheets to measure credit background, understand the level of customer satisfaction.

2.4.2 Business Performance dimensions

Business competitiveness, according to Herciu and Ogrean (2008) and Lopez (2005) defines competitiveness as comparison between a company’s performance and standard performance in the industry in terms of relative market share and position, sales growth and measure of customer base.

Financial performance in the context of profitability, market ratio, capital structure, liquidity, quality of services in terms of reliability, responsiveness, appearance, cleanliness, comfort, friendliness, communication, courtesy, access and availability of security services, flexibility in terms delivery speed and specification, resource utilization in terms of productivity and efficiency, innovation (Fitzgerald 2006)

2.5 Analysis of performance using CAMELS ratings system

Camels rating system is an industry standard approach developed in the US which is used to analyze risks (Maheshwari) 2009. It was introduced in India in early 1990. In 1995 RBI had set up a working group. A rating system for domestic and foreign banks based on the international CAMELS model was introduced, an international bank rating system where bank supervisory authorities rate institutions according to six factors, these six factors are represented by the acronym “CAMELS”, C- Capital adequacy A-Asset quality M- management quality, M – Management quality, E- Earnings, L-Liquidity S – Sensitivity to Market Risk (Maheshwari 2009)
2.5.1 Capital adequacy

Capital Adequacy Ratio (CAR), is the ratio of a bank’s capital to its risk, it also known as the Capital to Risk (Weighted) Assets Ratio (CRAR). The central bank monitors banks CAR to ensure that it can absorb a reasonable amount of loss and that if the bank complies with the statutory capital requirements. How much capital a bank should set aside as proportion of risky assets, it helps to minimize the risk of default capital adequacy is measured by the ratio of capital to risk – weighted assets (CRAR). A sound capital base strengthens confidence of depositors.

2.5.2 Asset quality

The key indicator of asset quality is the ratio of the ratio of nonperforming loans to total loans issued (GNPA). The gross non-performing loans to gross advances ratio is more indicative of the quality of credit decisions made by bankers. Therefore a higher value of GNPA is indicative of poor credit decision making, under such circumstances a GNPA is indicative of poor credit decision making, hence the bank management must follow the four step- 1. Adopt effective policies before loans are made – 2. Enforce those policies as the loans are made , 3- Monitor the portfolio after the loans are made, 4- Maintain an adequate Allowance for Loan and lease losses (ALLL)

2.5.3 Management

Banks management quality requires professional judgments of banks compliance to policies and procedures, aptitude for risk taking, development of strategic plans. The performance of other give CAMELS components will depend on the management quality. The ratio of non-interest expenditures to total assets can be one of the measures to assess the working of the management. This variable which includes a variety of expenses, such as payroll, workers compensation and training investments, reflects the management policy stance. Another ratio helpful; to judge the quality of management is Cost per unit of money lent which is operating cost upon total money disbursed.

2.5.4 Earnings

The way the management manages the assets and liabilities of the institution determines he quality and trend of earning of an institution. An FI must earn reasonable profit to support asset growth,
construct up adequate reserves and enhance shareholders value. It can be measured as the return on asset ratio.

2.5.6 Liquidity
For a commercial bank to meet its depositors and creditors demand to must always liquid to maintain public confidence. Cash maintained by the banks and balances with central to total assets ratio (LQD) is an indicator of banks liquidity. In general, banks with a larger volume of liquid assets are perceived safe, assets are perceived safe, since these assets would allow banks to meet unexpected withdrawals (Maheshwari 2009)

2.5.7 Sensitivity to market risks
The main concern for FIs is risk management. This shows the degree to which changes in interest rates, foreign exchange rates, commodity prices, or equity prices can adversely affect financial institutions earnings. The major risks to be examined include market risk, exchange rate risk, maturity risk, and contagion risk.

2.5.8 Ratings
Ratings symbol shows: Symbol A Bank is sound in every respect, B Bank is fundamentally sound but with moderate weakness financial, operational or compliance weakness that give a reason for supervisory concern. C, serious or immoderate finance, operational and managerial weakness that could become a D in the future, they is a high possibility of failure in the near future.

2.6.0 Challenges faced by banks while using digital payment systems
The development of an effective electronic system is associated with many factors. DPS requires a government set up an effective telecommunication infrastructure and a stable power supply. DPS have been affected by infrastructural deficiency such as communication links in developing countries.

Inadequate skilled management and requisite tools to end users and client systems, here efforts should be done in provision of infrastructure and skilled man power, another problem is the higher transactional costs for online transactions for example balance enquiry fees and transfer charges
Lack of government support for the improvement of e banking, there should a central bank involvement of central banks in public awareness campaign and escalating infrastructural challenges to the relevant government agencies and an inadequate security for fraud prevention

2.6.1 Lack of adequate investment capital
Funds that are needed to buy new ICT infrastructure and for modernization existing systems are generally in short supply While there are number of modern banking applications in use, there is also integrated banking system, which continued to experience innovations in terms of product development specifically and they has been tremendous improvement in the speed which funds are transferred within and outside domestic economy (international money transfer)

2.6.2 Reduces employment in the country
Digital payments systems and electronic banking has reduced the rates of employments in the country for example in Zimbabwe Standard Chartered bank is closing down branches in pursuing digital transformation wave, also digital banks like Steward has very branches all over the country., because clients are now accessing banking services in the comfort of their homes without even visiting the bank.

2.6.3 High transactional charges
Customers are being discouraged to use digital banking platforms for transactional purposes because rates of commission charged by banks are extremely high, which is a burden on certain groups within the society

2.6.4 Minimal acceptance by the public
Customers and the general public do not have trust in the electronic machine in the sense that they prone to be manipulated for fraudulent activities. Currently they is an increase in the card cloning related activities mainly the Steward and FBC cards and point of sale machines. They are also cases when client is debited on an ATM or POS machines but the machines reports a failed transaction and such queries takes time resolve or they end up unresolved, therefore these cases reduces the client confidence in the banking system specifically the use of electronic banking platforms.
2.7 The Concept of Digital Payment systems

The concept of digital banking has been defined in many aspects. According to Daniel (1999) digital banking is the delivery of banks information and services to clients via different delivery platforms that can be used with different terminal devices such as a personal computer and mobile phone with browser or desktop software, telephone or a digital television.

Arunachalama and Sivasubramaninan (2007) States that, internet banking is where a customer can access his/her bank account via the internet using personal computer (PC) or a mobile phone and a web browser. In addition, Ongakasuwana and Tantichatton (2002) further defines internet (electronic) banking services that creates a platform for customers to access and perform financial transactions on their bank accounts from their web enabled computers with internet connection to websites any time they wish. Internet banking services also enables bank customers to perform transactions such as transfers and payments, access of latest balance, statement viewing, account detail viewing, customization, print, downloading of statements and obtaining a history statement on all accounts linked to the bank’s customers.

Burras (1995) states that digital banking/electronic banking includes that system that enables financial institutions customers, individuals or business, access accounts, transact business or obtain information on financial products and services on public or private network including the internet. Digital banking is the act of conducting financial intermediation on the internet. It is the process by which a customer is able to access, control and use his/her account over the internet.

According to Burras (1995) digital banking/electronic banking uses data communication networks to establish electronic connections between banks and clients in preparation, management and control of financial transactions. Pardon 1977 argued that a variety of the digital banking technology in recent years had expanded. With financial institutions, technologies like direct deposit, automated teller machines and credit and debit cards have been the key investments and innovations. However, he observed that these innovations and creations need an environment that is customer friendly and likely to improve on customer satisfaction. He stated in a clientele world, the customer is the boss, so if these technologies are meant to improve on service delivery and satisfaction, the digital transformation of the banking industry is the future of banking. Electronic banking is defined as the automated delivery on new banking products and services directly to customers through electronic, interactive communication channels. E Banking is made up of
systems that enable clients, individuals or business, to access accounts. Transact business or obtain information on financial products and services through public or private networks including the internet. Clients access the digital payment systems using smart electronic devices, such as the personal computers (PC), personal digital assistant (PDA), automated teller machines (ATM), and kiosk or touch tone telephone.

Digital banking is an umbrella term for the process by which a customer may perform banking transaction electronically without visiting a brick and mortar institution. The following terms all refer to one form or another of electronic banking: personal computer (PC), internet banking, virtual banking, online banking, home banking, remote electronic banking, and mobile banking. PC banking, mobile banking and internet or online banking are the most frequently used designations.

Digital banking is a wave of the future. It provides enormous benefits to customers in terms of the ease of transactions. But it also poses new challenges for country authorities in regulating and supervising the financial system and in designing and implementing macroeconomic policy.

2.8 What is digital banking?

Electronic banking has been in play for some time in form of automatic teller machines and telephone transactions. More recently it has been transformed by the internet a new delivery channel for banking services that benefits both customers and banks. Access is fast, convenient and available around the clock, whatever the customer’s locations, (see illustration above). Plus banks can provide services more efficiently and at substantial lower costs. For example at FBC a typical customer transacting using ZIPIT to an external bank cost $2.05.

Digital payments system makes it easier for customers to compare banks services and products, can increase competition among banks and allows bank to penetrate new markets and thus expand their geographical reach. Some even views electronic banking as an opportunity for countries with under developed financial systems to leap frog developmental stages. Customers in such countries can assess services more easily from banks abroad and through wireless communication systems, which are developing more quickly than traditional wired communication networks.

The flip side of this technological boom is that digital banking system is not only susceptible to but may exacerbate some of the same risks particularly governance, legal, operational and
reputational- inherent in traditional banking. In addition, it poses new challenges. In response many national regulators have already modified their regulations to achieve their main objectives: ensuring the safety and soundness of the domestic banking system, promoting market discipline and protecting customer rights and the public trust in the banking system. Policy makers are also becoming increasingly aware of the greater potential impact if macroeconomic policy on capital movements.

Electronic banking has long been recognized to play an important role in economic development on the basis of their ability to create liquidity in the economy through financial intermediation between savers and borrowers. It also offers financial services and products that accelerate settlement of transactions and in the process reduce cash intensity in the financial system, encourage banking culture, and catalyze economic growth (Al-Gahtani, 2001).

One important reason for financial liberalization and deregulation is the need to develop a good payment system which promotes an appropriate mechanism for efficiency in mobilizing and allocating financial resources in the economy. The payment system occupies an important place in the development of a country economy, in fact the level of development of a countries payment system is a reflection of the state or condition of the country’s economy (Aladwani2001)

In theory and policy of money and banking, payment system is defined as a system where settlement of financial obligations are done by the use of credit cards or even pressing some bottoms that transfer the amount in their bank to the account of another person through the computer. According to Orjih (1999) a payment system is defined as one which consists of different methods of payments which are checks, credit cards, Bankers drafts, standing order, documentary credits swift etc. for the settlement of transactions.

**2.9 Application of digital payment systems**

For many consumers, electronic banking means 24-hour access to cash through an automated teller machine (ATM) or Direct Deposit of paychecks into checking or savings accounts. But Electronic banking involves many different types of transactions (Simpson 2002, Fox and Beier, 2006).

Electronic fund transfer (EFT) is a component of electronic banking uses computer and electronic technology as a substitute for checks and other paper transactions. EFTs is initiated through
devices like cards or codes that let you, or those you authorize, access your account (Fox and Beier, 2006). Many financial institutions use ATM or debit cards and Personal Identification Numbers (PINs) for this purpose. Some use other types of debit cards such as those that require, at the most, your signature or a scan. For example, some use radio frequency identification (RFID) or other forms of “contactless” technology that scan your information without direct contact. The federal Electronic Fund Transfer Act (EFT Act) covers some electronic consumer transactions (Simpson 2002, Fox and Beier, 2006).

ATMs are electronic terminals that let you bank almost any time. To withdraw cash, make deposits, or transfer funds between accounts, you generally insert an ATM card and enter your PIN. Some financial institutions and ATM owners charge a fee, particularly if you don’t have accounts with them or if you engage in transactions at remote locations. Generally, ATMs must tell you they charge a fee and its amount on or at the terminal screen before you complete the transaction. Check the requirements with your institution and at ATMs you use for more information about these fees (Simpson 2002).

Direct Deposit lets you authorize specific deposits, (like paychecks and Social Security check and other benefits) to your account on a regular basis. You also may pre-authorize direct withdrawals so that recurring bills (like insurance premiums, mortgages, utility bills, for Consumers) are paid automatically. Be cautious before you pre-authorize direct recurring withdrawals to pay companies you aren’t familiar with; funds from your bank account could be withdrawn improperly. Also monitor your bank account to ensure that direct recurring payments from your account to others are for the correct amount (Simpson 2002).

Pay-by-Phone Systems let you call your financial institution with instructions to pay certain bills or to transfer funds between accounts. You must have an agreement with the institution to make such transfers (Simpson 2002). Personal Computer Banking lets you handle many banking transactions via your personal computer. For instance, you may use your computer to view your account balance, request transfers between accounts, and pay bills electronically.
Debit Card Purchase or Payment Transaction let you make purchases or payments with a debit card, which also may be your ATM card. This could occur at a store or business, online, or by phone. The process is similar to using a credit card, with some important exceptions (Fox and Beier, 2006). While the process is fast and easy, a debit card purchase or payment transfer’s money – fairly quickly – from your bank account to the company’s account. So it’s important that you have funds in your account to cover your purchase. This means you need to keep accurate records of the dates and amounts of your debit card purchases, payments, and ATM withdrawals. Also be sure you know the store or business before you provide your debit card information to avoid the possible loss of funds through fraud. Your liability for unauthorized use, and your rights for error resolution, may be different for a debit card than a credit card (Simpson 2002).

Electronic Check Conversion converts a paper check into an electronic payment or when a company receives your check in the mail (Fox and Beier, 2006). When you give your check to a cashier, the check is run through an electronic system that captures your banking information and the amount of the check. You’re asked to sign a receipt and you get a copy for your records. When your check is handed back to you, it should be voided or marked by the merchant so that it can’t be used again. The merchant electronically sends information from the check (but not the check itself) to your bank or other financial institution, and the funds are transferred into the merchant’s account.

When you mail-in a check for payment to a merchant or other company, they may electronically send information from your check (but not the check itself) through the system, and the funds are transferred from your account into their account. For a mailed check, you should still receive advance notice from a company that expects to send your check information through the system electronically. For example, the merchant or other company might include the notice on your monthly statement. The notice also should state if the merchant or company will electronically collect from your account a fee – like a “bounced check” fee – if you have insufficient funds to cover the transaction.
2.10 The future of banking?

First of all, the bank must fully understand and appreciate the fact that the banking industry now exist, in a global village. It must therefore strive to provide local and global banking services using the infrastructure of the global village. Most current digital banking applications use the internet. The advantages of on line banking is in providing convenience and flexibility for customers (Anyawaokoro, 1999). Some online banking allows customers to get current account balances at any time. Customers do not need to wonder whether a check of has cleared or a deposit has been posted. At the click of a button, customers can easily check the status of their current savings and money-market accounts through online banking. Banks can provide immediate account enquires or statements online for customers (Casalo …et al, 2007)

2.10.1 Internet

Most of the applications mentioned involved the use of internet, E-banking is more than just Internet banking in the still evolving e-climate in the economy; it involves using the net to exploit new opportunities by transforming products and markets and business processes (Fox and Beier, 2006). Digital banking also means developing new relationship with customers, regulatory authorities’, suppliers and banking partners with digital age tools, for example, it requires all understanding. Customer/bank relationships will be more personalized resulting in novel modes of transaction processing and services delivery.

Digital banking is essentially about banks using new age methods and tools to expand into new banking markets and grow. Creating a corporate online presence for your bank should be more than just buildings a website. It should be about building a web business for your bank, to do this effectively the people in charge, i.e. the CEOs not just IT directors and managers must have a deep knowledge of what digital -banking culture demands (Clive, 2007).

2.10.2 E-business

IT or E-business or E-commerce is not about routine information management or automation, it is about using these unique tools to create opportunities, create new markets, new processes and growth or increase the creation of e- wealth (Hampton-Sosa et al. 2005). E-banking monitors the environment local and global with the aim of understanding and mastering its environment. Digital
banking thus involves collaboration (local and international) on payments systems, cashless transactions, digital cash and other electronic based projects. It can be seen that other immense potentials can only be realized if bank management and staff, not just the systems staff are sufficiently literate and aware, and presently the banking industry still has a lot to do in terms of training staff. The speed of change together with the need for proper orientation for the e-world makes training even more of a necessity (Usman, 1998). For E-banking to be effective, an area that must be addressed is security, for any IT based service associated with e-banking increases the need for security, in e-banking the core security areas should be addressed. A key concern is that of privacy. Business on the net cannot be undertaken without addressing the privacy concerns of people you do business with. It requires the existence of a privacy policy. No customer wants to click away to a negative balance. Security in online banking is typically provided through the use of an electronic Identity (ID) and password. These and other security measures must be effective to prevent not only the breach of privacy, but other security concerns like the alteration of data (Hampton-Sosa …et al. 2005).

In conclusion to be a true digital -bank each bank must identify its own unique targets, focus and style. Banks needs to realize that E-banking is more than simply banking on the internet, E-banking is more than having a web-site, and -banking is about building a web business for your banks.

2.11 Types of digital payment systems

Electronic banking consists of the following: mobile banking, internet banking, and telephone banking, electronic card etc.

2.11.1 Mobile/ SMS Banking

Mobile Banking refers to the provision and availing of banking and financial services with the help of mobile telecommunication devices. The scope of offered services maybe includes facilities to conduct bank and stock market transactions, to administer accounts and to access customized information. According to Meute (2010), Mobile Banking consists of three interrelated concepts: mobile accounting, mobile brokerage and mobile financial information services. With mobile technology banks can offer a variety of services to their customers such as doing funds transfer while traveling, receiving online updates of stock price or even performing stock trading while
being stuck in traffic. Smart phones and 3G connectivity provide some capabilities that older text message-only phones do not (Shan, 2006)

2.11.2 Telephone Banking

Telephone banking is a service provided by a financial institution, which allows its customers to perform transactions over the telephone (Vila et al., 2013). Most telephone banking services use an automated phone answering system with phone keypad response or voice recognition capability. To guarantee security, the customer must first authenticate through a numeric or verbal password or through security questions asked by a live representative. With the obvious exception of cash withdrawals and deposits, it offers virtually all the features of an automated teller machine: account balance information and list of latest transactions, electronic bill payments, funds transfers between a customer's accounts, etc. Usually, customers can also speak to a live representative located in a call center or a branch, although this feature is not always guaranteed to be offered 24/7. In addition, telephone banking representatives are usually trained to do what was traditionally available only at the branch: loan applications, investment purchases and redemptions, checkbook orders, debit card replacements, change of address, etc.

2.11.3 Online banking

Internet banking involves conducting banking transactions such as account enquiry printing of Statement of account; funds transfer payments for goods and services, etc on the internet (World Wide Web) using electronic tools such as the computer without visiting the banking hall. Ecommerce is greatly facilitated by internet banking and is mostly used to effect payment. Internet banking also uses the electronic card infrastructure for executing payment instructions and for final settlement of goods and service over the internet between the merchant and the customer, currently the most common internet payments are for consumer bills and purchase of air ticket through the websites of the merchants (Littler, 2006).

2.11.4 Electronic card

An electronic card is a physical plastic card that uniquely identifies the holder and can be used for financial transactions on the internet. For instance, Automated Teller Machine (ATM) and Point-of Sales (PoS) terminal are used to authorize payment to the merchant or seller (James,
The various types of electronic cards include debt, credit cards; releasable cards require visiting banks for replenishment. Debit cards are linked to local bank accounts and offer immediate confirmation of payment. Credit cards can be used to link a customer to a credit line and can also be used for accessing local and international networks and are widely accepted in most countries. The underlying infrastructure and operational rules are often provided by global trusted schemes (such as visa and master card) in addition to local lines (James, 2009).

2.12 Advantages of Digital Payment Systems

Kim et al (2006) asserted that internet banking services has advantages for banks to maintain competition, to save cost, to enhance mass customization, marketing and communication activities and to maintain and attract consumers. Katri (2003) stated that internet banking serves also as a gateway offering identification and authorization services to a number of third-party service providers.

Ongkwasuwan and Tantichatton (2002) indicate that internet banking helps bank in cost saving increase customer base, enable mass customization for e Business services extend marketing and communication channel, search for new innovation services and explore development of non-core business. However customers’ ability to subscribe to the internet based banking services depend on several factors such as user friendly interface, level of internet experience, types of services provided (for example e mail, file transfer, news, online financial services, shopping and multimedia services), attitude and perception access and delivery time and experience with the internet.

2.13 Factors Influencing the Adoption of Electronic Banking

2.13.1 Accessibility

Accessibility defines as the ability of users to access information and services from the web is dependent on many factors. These included the content format, the user’s hardware, software and settings, internet connections, the environmental conditions and the user’s abilities and disabilities. The term we accessibility generally relates to the implementation of website content in such a way
as to maximize the ability of users with disability to accesses it. For example providing a text equivalent for image content of a web page, allows users with some visual disabilities access to the information via a screen reader.

Joseph et al (1999) considered banking service quality with respect to technology use, such as ATMs, telephone and the internet and identified six dimensions. They were convenience/accuracy, feedback/complaint management, efficiency and queue management, accessibility and customization. There it is hypothesized that accessibility has positive effect on customer satisfaction.

2.13.2 Convenience

Digital payment systems provide a higher degree of convenience that enables customers to access electronic banking at all times and all places. Apart from that the ease of access of computers is perceived as a measure of relative advantage (Daniel 1999). Revealed that they are some services quality determinants that are predominantly satisfiers and others that are predominantly dissatisfies with the main sources of satisfaction being attentiveness, responsiveness care and friendless. The main sources of dissatisfaction are integrity, reliability, responsiveness, availability and functionality.

According to Aimsough and Luckett (1996) the provision of customer interactivity is an important criterion that attracts users in the delivery of digital payment systems. Gerrad and Cunningham (2003) also identifies other factors of paramount importance in ensuring the success of digital payment systems i.e. the ability of an innovation to meet users’ needs using different feature availability on the website. For instance the provision of interactive loan calculators, exchange rate converters and mortgage calculators on the website draw the attention of both users and nonusers into the banks website. A UK study uncovered five key service quality attributes such as security related issues, convenience, speed and timeless of the service and product variety/diverse features (White and Nteli 2004) Therefore it is hypothesized that convenience has positive effect on customer satisfaction.

2.13.3 Privacy

Customers have doubts about the trust ability of the e banks privacy polices (Gerrad and Cunningham2003) Trust has striking influence on users willingness to engage in online exchanges
of money and personal sensitive information (Friedman et al 2000). Privacy is an important dimension that may affect user’s intention to adopt e-based transaction systems. Encryption technology is the most common feature at all banks sites to sure information privacy, supplemented by a combination of different unique identifiers for instance password, mother’s maiden name, a memorial date, or a few minutes of inactivity automatically logs users of the account. Besides the secure socket layer a widely used protocol use for online credit card payment is designed to provide a private and reliable channel between two communicating entities, the use of Java Applet that runs within the users browser, the use of a personal identification number, as well as an integrated digital signature and digital certificate associated with a smartcard and biometric recognition using finger prints offers a more secure and easier access control for computers than the password method. Zeithmal et al (2000) developed e-SERVQUAL for measuring e-service quality, identifying 11 dimensions: access; ease of navigation, efficiency, flexibility, reliability, personalization, privacy, responsiveness, assurance/trust, site aesthetics and price knowledge. Hence it is hypothesized that privacy has a positive effect on customer satisfaction.

2.13.4 Security

Assurance about security relates to the extent which the website guaranties the safety of the customers financial and personal information an area which has witnessed a proliferation of research interest. (Kimery and McCord 2002). Security can be assured by providing a privacy statement and information about the security of the shopping mechanisms and by displaying the logos of trusted third parties. For example displaying trusted third party logo guarantees a certain level of security protection and has been shown to significantly influence how customers regard the trustworthiness of the vendors.

Internet banking was made possible by the creation of web browser. In this mode of online banking, consumers do not have to purchase additional software (all they need is the browser), store any data on their computer, back up any data or wait for the software upgrades or new versions (Kolsaker and Payne 2002). All transactions occur on a secure server of a bank via the internet. The bank has all of the required data and software to execute the transactions. Customers go to the banks websites, log in and the take advantage of the banks internet services. Typical bank services are account access and review transfers of funds between accounts, bill payment and then a widening variety of new services and products.
Security plays an important role in internet banking and so there are several protocols for the intent security of encrypted data packets (Kolsaker and Payne 2002). Customers are not aware of the encryption, however only certain versions of popular internet banking browsers are acceptable to some banks due to their security limitations. Therefore it is hypothesized that privacy has a positive effect on customer satisfaction.

2.13.5 Design

The goal of aesthetic designs is to make a web site visually attractive and enjoyable. Proctor et al. (2002, 2003) discussed content preparation in a broad sense and identified its four aspects, knowledge elicitation, information, organization and structure, information retrieval and information presentation. During design and prior to implementation, it is strongly recommended that users of different ages, and with a range of capabilities and limitations be engaged to trial the new service and provide feedback. Financial institutions should test accessibility of their customer websites with both automated tools and user accessibility trials. Therefore, it is hypothesized that design has a positive effect on customer satisfaction.

2.13.6 Content

Jayawardhena and Foley (2000) and Pikkarein 2004 claim that content on online banking on the website is one of the factors influencing online banking acceptance on the other hand quality designs, graphics or colors and the propensity to portray good image of the bank would enhance efficient use of navigation. In the context of internet banking there is a growing body of research that has looked at influences on customer satisfaction. Jayawadhena and Foley (2000) illustrated that such website features, website, content and design, navigation, interactivity and security all influence user satisfaction whereas Broderick and Vachirapornik (2002) found that the level and nature of customer participation had the greatest impact on quality of the service experience and issues such as customer zone of tolerance, the degree of the role understanding by customers and emotional response potentially determined, expected and perceived service quality. Yang and Fang (2004) found that the ease of use and usefulness are important factors in evaluating online service quality. Yang and Fang (2004) found that ease of use and usefulness are important factors in evaluating online service quality. Earlier Doll and Torkzadeh (1998) identified five quality dimensions that have an impact on end user satisfaction in an online environment. These are
content, accuracy, format, ease of use, timelines. Thus it is hypothesized that content has positive effect on customer satisfaction.

### 2.13.7 Fees and Charges

Service quality attributes in e-banking industry are important since human-internet interaction is the main service delivery and communication channel. Offering high quality services to satisfy consumers' needs, at lower costs, are potential competitive advantage of e-banking. Some studies show that e-banking has successfully reduced operating and administrative costs (Devlin, 1995; Siriluck and Speece, 2003). Cost savings have helped e-based banks offer lower or no service fees, and offer higher interest rates on interest-bearing accounts than traditional banks (Gerlach, 2000; Jun and Cai, 2001). Therefore, it is hypothesized that fees and charges have positive impact on customer satisfaction.

### 2.14 Critical review and gap in the literature

Commercial banks assaulted by the pressure of globalization and competition from non-banking new ways to add value to the services. The question of what drives performance is at the top on understanding superior performance and hence striving for it. Substantial research efforts have gone into addressing this question, starting from the strategic level and going down to the operational details. A key study bench marking the strategies of leading retail banks was conducted by the bank strategies of leading retail banks. This study is based on the opinions of heads of retail banks at all commercial banks established the linkage between marketing, operations, organizing excellence. This finding led to the formulation of the service management strategy encapsulated in the trial operational capabilities quality performance. The capabilities service quality performance trial is, in turn a focused view of the service profit chain described by (Hskettet all 1994) based on their analysis of successful service organizations.

### 2.15 Conceptual Framework

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Dependent Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DIGITAL PAYMENT SYSTEMS</strong></td>
<td><strong>PERFORMANCE INDICATORS</strong></td>
</tr>
<tr>
<td>• Mobile banking</td>
<td>• Profitability</td>
</tr>
<tr>
<td>• Internet banking</td>
<td></td>
</tr>
<tr>
<td>• Electronic card banking</td>
<td></td>
</tr>
<tr>
<td>• Point of sale machines</td>
<td></td>
</tr>
</tbody>
</table>
The above concept implies that E Banking types such as Mobile Banking, internet banking, ATM cards improves banks profitability, liquidity, asset quality, earnings and risk management, especially if other factors remains constant and these factors include network coverage, reliable internet, government regulations on IT, power supply and many other connections.

2.16 Summary

Information technology generates fundamental changes in the nature and application of technology in business set up. Information Communications Technologies (Digital banking) can provide powerful strategic and tactical tools for organizations including banks, which if properly articulated and used could bring a many advantage in creating and strengthen their competitiveness. The proliferation of the different digital banking tools like internet, is a main stream of communication media and as an infrastructure or business transactions has generated a wide range of implications for business in general as well as for the banking industry in particular (Li- Hua and Khalil, 2006). Internet technology and web based commerce have dramatically transformed the banking in the decade (Werthner and Klein 2005). Information and communication technology (ICT) have always played a predominant role in the banking sector performance (
Poon, 2003) but with the advent of the internet and open source technology their impact is becoming increasingly more crucial and evident (Buhalis 2004, Jacobsen et al 2008).

CHAPTER III

RESEARCH METHODOLOGY

3.0 Introduction

This chapter explores the methodology that was used to conduct the research. It describes the research design, the population, sample, data collection and how data analysis was done.

3.1 Research Design

According to Kothari (2008), research design is the conceptual structure within which research is conducted, it constitutes the blueprint for the collection, measurement and analysis of data as such the design includes an outline of what the researcher did from writing hypothesis and its operational implications to the final analysis of data.

The researcher used a descriptive research design where qualitative and quantitative approach will be used. In quantitative approach the researcher employed data in form of numbers collected from employees on digital payment systems and performance of financial institutions. Qualitative data was collected interviews in order to describe the activities and its impact of digital payment systems on the performance of commercial banks.

3.2 Target Population

All factors under consideration in any field of inquiry constitute a “universe or population. It can be presumed that in such an inquiry when all the items are covered no element of chance is left and highest accuracy is obtained. (Kothari, 2004) The case study of this research is FBC bank
limited and population of employees of FBC bank, specifically the retail banking department and electronic channels department (E Channels).

3.3 Sample Design
A sample design is a definite strategy/plan for obtaining a sample from a given population. It refers to the technique or the procedure the researcher would adopt in selecting items for the sample. (Kothari 2004).

3.4 Sampling Technique
Stratified sampling technique was used to select departments to be investigated and this followed census and purposive whereby the researcher took the whole population which 16 out of 20 staff members: Electronic channels, retail banking, finance and accounting, Convenience banking, these departments were chosen to take part in the research, this information can be illustrated as follows:

Table 3.1: Justification of the target population and sample design to be used

<table>
<thead>
<tr>
<th>Department</th>
<th>Population</th>
<th>Sample Size</th>
<th>Sampling design</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail banking</td>
<td>10</td>
<td>8</td>
<td>Census</td>
</tr>
<tr>
<td>E channels</td>
<td>8</td>
<td>8</td>
<td>Census</td>
</tr>
<tr>
<td>Convenience Banking</td>
<td>6</td>
<td>5</td>
<td>Census</td>
</tr>
<tr>
<td>Finance and accounting</td>
<td>6</td>
<td>5</td>
<td>Census</td>
</tr>
<tr>
<td></td>
<td>30</td>
<td>26</td>
<td>Purposive</td>
</tr>
</tbody>
</table>

With this kind of technique being applied, the researcher is certain to include elements that are presumed to be typical of a given population about which the researcher seeks information. According to Black (1999), census does not involve any random selection process. According to Welman and Kruger (2001), the advantage of non-profitability is that it is economical and less complicated. Purposive sampling procedure was used in the sample selection in order to enable the researcher to pick respondents who meet the purposive of the study. The members where
purposively selected depending on their ability to easily analyze and understand the problem of study. Also a fair representation from each office and the stakeholders were considered when sampling.

3.5 Collection of Data

The researcher obtained the information by using both primary and secondary data. Data collection is vital in gathering the required information with the aim of achieving the research objective. The researcher will write a request letter to the Bank in order to access reports for the period under study. The data on the revenues collected, fees and commission will be collected at FBC Centre branch and FBC convenience banking.

3.6 Research Instruments

According to Saunders et al (2009) Research instruments are tools that are used to collect data in a systematic way. The data will be analyzed using programming software known as SPSS. The researcher used various text books to provide the literature review, theories and basic information. The internet was used to access previous work done on regression analysis method and it will benefit the researcher with wide range and up to date information.

3.7 Data Analysis and presentation procedure

Data analysis involves transforming and modeling of data with the purpose of discovering the relationship to support the research conclusion. Alexopoulous (2010) argued that data analysis aims to extract accurate information from raw information. Data presentation means displaying analyzed statistical information for easier comprehension of trends. Kojo (2011), defined data analysis as a procedure for collecting and combining data in a meaningful arrangement for easy comprehension. The general linear regression model with $Y_i$ as the dependent variable and $x_i$ as independent variables can be stated in the following form

$$Y_i = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \epsilon$$

Where

$Y_i$ Represents the dependent variable which is profitability
$x_1, x_2, x_3$ and $x_4$ represents the independent variables which are mobile banking, internet banking, electronic banking and point of sale machines

$\beta_1, \beta_2, \beta_3$ and $\beta_4$ represents estimated value of $Y$ when all the other variables are zero

$\epsilon$ Represents the error term

$\beta_0$ Represents estimated value of $Y$ when all the other variables are zero

3.8 The Linear Regression Method

The regression method was used to find the value of $\beta_i$ which explains the relationship between the independent variables and dependent variable. The reliability of the estimate of the individual beta was tested by p-value in the ANOVA table.

The data from the ANOVA table was tested the acceptability of the model from a statistical perspective. Adjusted $R^2$ was used to measure the proportion of variance in the dependent variable that was explained by the independent variables to a maximum of 1. The F test was used to test the significance of $R$, which is the same as testing the significance of $R^2$ and testing the significance of the regression model as a whole while the T-test was used to test the significance of the individual betas.

3.9 MICROSOFT EXCEL and SPSS

Microsoft Excel and SPSS are statistical packages used to produce and analyze the results, amongst other packages that could be used like MATLAB, and Python. The researcher used Microsoft Excel because of its simplicity to use. Microsoft Excel package is helpful especially when the problem is complex, such complexity may arise when the problem involves larger numbers. The use of excel package necessarily requires data availability about the environment surrounding the problem.

3.10 Chapter summary

The research methodology was proving a road map for other studies to follow, since the chapter clearly unleashes the research procedures, techniques and tools used in the study. The chapter was laid in relation to suggestions made by the previous studies in the second chapter. The sections highlighted in the chapter include research design, research instruments and data sources used for
statistical tests. The chapter further onto data analysis procedures, which embraces the statistic software selected to come up with descriptive and inferential output, which provides a basis for answers to objectives of the study. In addition to data analysis procedures, the chapter also highlighted models used by the researcher to generate inferential and descriptive output of information obtained from both primary and secondary sources. The research methodology unlocks gateway for the next chapter which will be focusing on discussion, data presentation and analysis of the results before the last chapter of summary conclusions and recommendations of the research.
CHAPTER 4

DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.0 Introduction
In this chapter, the researcher is concerned with the analysis of collected data as well as the presentation of the obtained results. Data was analyzed using Regression Analysis and ANOVA as stated in the previous chapter. The results enable us to answers the questions on what is the regression model that can help to analyze the impact of DPS on the financial performance of commercial banks (FBC), and what are the results found. The data was collected from secondary sources which were the financial statements and FBC annual reports for the years 2011 to 2017. The data was analyzed using Microsoft Excel 2013 and SPSS.

4.1 Variables
There were two variables in the study which included the independent variables and dependent variable.

4.1.1 Dependent Variable
The dependent variable is the financial performance represented by profitability (net profit).

4.1.2 Independent Variables
The independent variables of digital payment systems on the financial performance of FBC bank were measured by the value generated from ATMS, point of sale terminals, Mobile banking and Internet banking.

4.2 Descriptive Statistics
Descriptive statistics are the measurements that explain the general nature of the data under research. They define the nature of response from primary data and/or secondary data. Descriptive statistics for this research include standard deviation, mean, minimum and maximum. Descriptive
data analysis was done on the profitability; and the value generated from the independent variables which are, mobile banking, internet banking, ATM’s and POS machines. The descriptive statistics results are tabulated below, but the data we analyzed is in log form

4.3 Findings

Table 4.1 descriptive statistics of variables

<table>
<thead>
<tr>
<th>Year</th>
<th>profit after tax in millions</th>
<th>value of mobile banking</th>
<th>value of internet banking</th>
<th>value of ATM</th>
<th>value of pos</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>12 506 510</td>
<td>7500</td>
<td>5000</td>
<td>4509654</td>
<td>9000</td>
</tr>
<tr>
<td>2012</td>
<td>15 636 852</td>
<td>7823</td>
<td>5229</td>
<td>4396521</td>
<td>9520</td>
</tr>
<tr>
<td>2013</td>
<td>15 901 246</td>
<td>8325</td>
<td>6097</td>
<td>4069872</td>
<td>10200</td>
</tr>
<tr>
<td>2014</td>
<td>13 933 163</td>
<td>8420</td>
<td>6123</td>
<td>3896541</td>
<td>10893</td>
</tr>
<tr>
<td>2015</td>
<td>18 098 243</td>
<td>9067</td>
<td>6548</td>
<td>3752435</td>
<td>11236</td>
</tr>
<tr>
<td>2016</td>
<td>21 937 726</td>
<td>11350</td>
<td>9050</td>
<td>3346894</td>
<td>12369</td>
</tr>
<tr>
<td>2017</td>
<td>23 248 230</td>
<td>133359</td>
<td>10045</td>
<td>3058963</td>
<td>15489</td>
</tr>
<tr>
<td>Min</td>
<td>12 506 510</td>
<td>7500</td>
<td>5000</td>
<td>3058963</td>
<td>9000</td>
</tr>
<tr>
<td>Max</td>
<td>23 248 230</td>
<td>133359</td>
<td>10045</td>
<td>4509654</td>
<td>15489</td>
</tr>
</tbody>
</table>

Source: research findings

From table 4.1 bank performance was measured by profit after tax over the study period of seven years. From the research data, the net profit of commercial banks increased steadily from 2011 to 2013 and a drop in 2014 then a steady increase from 2015 to 2017. This study used the value generated from ATMS, value generated from internet banking, value generated from Point of sales. These generally indicate financial innovation within the banking sector. The findings show that these have been increasing steadily since 2011 to 2017 and hence contributing to development of the banking industry as it improves financial profitability of the company.
4.3.1 Correlation: Profitability and Digital Payment Systems

Correlation matrix shows the relationship between the variables. Table 4.2 shows the correlation coefficients between Profitability and the indicators of digital payment systems, where mobile banking is positively correlated to profitability (70%) this means an increase in the value generated from mobile banking will increase profits by 70%. There is a weak positive correlation between internet banking and profitability of 0.396197, this means an increase in the value contributed from internet banking will increase the profitability by 0.396197. Between value generated from ATM’s and the profitability there exists also a strong negative correlation of -0.90972 meaning an increase in value generated from ATM’s will cause a strong decrease in profits. Between value generated from POS machines and profitability exists a strong positive correlation, meaning an increase in value generated from POS will cause a positive large increase in the profitability of the company.

<table>
<thead>
<tr>
<th></th>
<th>profit after tax in millions</th>
<th>value of mobile banking</th>
<th>value of internet banking</th>
<th>value of ATM</th>
<th>value of pos</th>
</tr>
</thead>
<tbody>
<tr>
<td>profit after tax in millions</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>value of mobile banking</td>
<td>0.700396</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>value of internet banking</td>
<td>0.396197</td>
<td>0.085589</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>value of ATM</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.35074</td>
<td>1</td>
</tr>
<tr>
<td>value of pos</td>
<td>0.882015</td>
<td>0.876895</td>
<td>0.313795</td>
<td>-0.98231</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 4.2: correlation matrix
4.3.2 Regression analysis

Regression method helped to estimate the unknown dependent variable with the help of several known independent variables.

**SUMMARY OUTPUT**

<table>
<thead>
<tr>
<th>Regression Statistics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple R</td>
<td>0.921173</td>
</tr>
<tr>
<td>R Square</td>
<td>0.848561</td>
</tr>
<tr>
<td>Adjusted R Square</td>
<td>0.545682</td>
</tr>
<tr>
<td>Standard Error</td>
<td>0.066761</td>
</tr>
<tr>
<td>Observations</td>
<td>7</td>
</tr>
</tbody>
</table>

**Table 4.3: regression**

a. Predictors: (Constant), value generated from ATMs, value generated from POS’s, and value generated from transactions for mobile banking and internet banking

b. Dependent Variable: Profit after tax

The coefficient of determination, ($R^2$), describes the percentage of variation in the dependent variable (profitability), that is described by the independent variables. $R^2$ statistic gives the goodness of fit of the model that shows how good the regression model estimates the real data points. An $R^2$ of 1.0 shows that the regression line perfectly fit the data. The $R^2$ of this model is 0.848561 which shows that the model is a good fit of the actual data. The coefficient of determination of 0.848561 implies that 84.85% of the variance in dependent variable, can be described by independent variables.
4.3.3 Analysis of Variance (ANOVA)

<table>
<thead>
<tr>
<th></th>
<th>Df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>Significance F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>4</td>
<td>0.04994</td>
<td>0.01248</td>
<td>2.80165</td>
<td>0.279945</td>
</tr>
<tr>
<td>Residual</td>
<td>2</td>
<td>0.00891</td>
<td>0.00445</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
<td>0.05886</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4.4: ANOVA

ANOVA is used to test model adequacy. It indicates that the model is significant in explaining the relationship between profitability and digital payment systems at 5% level of significance. Analysis of Variance shows that f-calculated is greater than f – critical that is 2.801>0.279945. This implies that the regression equation is adequate or was well specified and therefore the coefficient of the regression shows that there is a strong relationship between bank profitability and digital payment system. The analysis of variance of the predictors of the model has a significance of 0.279945
### 4.3.4 Coefficients

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Standard Error</th>
<th>t Stat</th>
<th>P-value</th>
<th>Lower 95%</th>
<th>Upper 95%</th>
<th>Lower 95.0%</th>
<th>Upper 95.0%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>45.4034</td>
<td>0.79199</td>
<td>0.51138</td>
<td>-</td>
<td>159.39</td>
<td>231.314</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>1</td>
<td>2</td>
<td></td>
<td>6</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>value of mobile banking</td>
<td>0.24415</td>
<td>0.39608</td>
<td>0.73030</td>
<td>-</td>
<td>1.14720</td>
<td>-</td>
<td>1.14720</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>4</td>
<td>4</td>
<td></td>
<td>9</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>value of internet banking</td>
<td>0.08228</td>
<td>0.40030</td>
<td>0.72764</td>
<td>-</td>
<td>0.3211</td>
<td>-</td>
<td>0.3211</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>1</td>
<td>5</td>
<td></td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>value of ATM</td>
<td>-3.26681</td>
<td>-</td>
<td>0.53082</td>
<td>-</td>
<td>15.4411</td>
<td>-</td>
<td>15.4411</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>0.75133</td>
<td>9</td>
<td></td>
<td>8</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>value of POS</td>
<td>-1.91672</td>
<td>-</td>
<td>0.70735</td>
<td>-</td>
<td>17.1374</td>
<td>-</td>
<td>17.1374</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>0.43282</td>
<td>9</td>
<td></td>
<td>2</td>
<td>9</td>
<td>2</td>
</tr>
</tbody>
</table>

**Table 4.5: coefficients**

From the analysis the regression equation becomes

\[ Y_i = 35.959 + 0.0967x_1 + 0.0329x_2 - 3.2668x_3 - 1.9167x_4 + \epsilon \]
In any given month, from the model, profitability will be 35.959 when all other predictor variables are zero. The model indicates that when the value generated from mobile banking and internet banking changes by one unit it will increase profitability by 0.0969 and 0.0329 respectively. A unit change in the value generated from POS machines and ATM’s will decrease profitability by 3.2668 and 1.9167 respectively. 0.0667 represents the standard error for the model. A t- test was carried out at 5% level of significance to show the importance of each individual variable.

4.4 Discussion of Findings

The reason for the study was to determine the impact of digital payment systems on the financial performance of Commercial Banks a case study of FBC bank Zimbabwe. Secondary data was used to assess the objective of this research piece, and the following analysis was done based on the variables of the research work. This is a discussion of results analyzed using excel

The overall regression estimation of the model is significant at 5% level of significance, from the analysis. It is a clear indication that the model is significant in explaining the relationship between digital payment systems and company financial performance. Results indicate that digital payment systems are significant in explaining their impact on the financial performance of commercial banks, with a significance of 0.279945. Misati et al., (2010), in his research, he established that electronic repayment systems elaborates the array of services that the banking sector could provide in order to increase incomes within the industry. Nofie, (2011) found that a higher usage of electronic retail payment instruments seems to stimulate banking business leading to better banking performance dominated by fee income.

The findings from the regression, confirms the multiplier effect created through money transfer through digital payment systems. Money transferred to or from bank generates fee income and when money reaches other banks there are multiple transactions that can arise from the funds. Digital payment systems have a direct and an indirect way of boosting bank’s financial performance.

Pooja and Singh (2009)'s research done in India show that the adoption of internet in banks resulted in more incomes and profits, at the same time Dew, (2007) concluded that use of internet
results in more incomes. This is evident from this research, from the annual averages of FBC bank financial performance increased with increase in the use and value generated from digital payment systems. Thus financial performance of banks (measured by profitability), also appeared in tandem with every increase in digital payment system.

In general, we can conclude that digital payment systems has a positive impact on the financial performance of commercial banks, although we noticed that for other forms of DPS there is a negative correlation of the two. The overall overview is indeed there is an impact, but more precisely it is positive between DPS’s and financial performance of commercial banks (measured using profitability)
Chapter 5

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction
In the previous chapters the study dealt at length with the evolution of the information technology in regards to performance of financial institution in Zimbabwe - A Case of FBC Bank limited Centre branch. This chapter will however present the summary of findings ad draws conclusions and recommendations on the study.

5.1 Summary of major findings
The research study aimed at examining the effect of digital payment systems on the financial performance of FBC Bank Limited and the objectives are to identify the impact of DPS on the financial performance of commercial banks, to identify the contribution of each factor on the impact of DPS, formulation of linear regression equations and finding a solution to the model give relevant recommendations.

The findings from the study has indicated an increase in adoption and use of digital payments systems by FBC Bank from the year 2011-2017 hence contributing to an increase in profitability of the Bank. The correlation matrix has shown that mobile baking, internet banking, POS is positively correlated to profitability and financial performance of FBC Bank. Also from the findings the overall regression estimation of the model is significant at 5% level of significance which is a clear indication that the model is significant in explaining the relationship between digital payment systems and financial performance. Findings indicates that digital payment systems are significant in explaining their impact on the financial performance of commercial banks, with a significance of 0.279945

The findings from the regression analysis clearly confirms the multiplier effect that was created by digital payments systems through mobile money transfers, the income from DPS is generated through fees and commissions obtained through electronic payments,
5.2 Conclusion can now conclude that digital payment systems have a positive impact on the financial performance of commercial banks, and also taking into consideration other systems that have a negative correlation to the performance, that is ATMs due to cash shortages and they have not been functioning for the past years.

5.3 Findings

The suggestions for the findings from the study are as follows:

Banks investments in information communications and technology solutions should not be “half-hearted”. Banks have an obligation to instill customer confidence in digital payment systems services they offer in terms of transaction costs and also they have to assure them of privacy and security they need to patronize these services. For example banks issuing magnetic Stripe Cards need to migrate to Chip technology in order to protect themselves as well as their customers from cloning, fraudulent skimming and usage of their cards. Government should support by way of legislations and infrastructure provision which is essential for creating and enabling a conducive environment of banking to thrive in a country for example through play a role in the financial inclusion policy.

Banks staff need to well package and market digital banking products and services effectively to customers to close the seemingly knowledge gap that exist among the population with regard to the benefits that can be derived from the services. FBC Banks has a portfolio of standard electronic banking but knowledge gap exists between the institution and the customers, therefore they is a need for the bank to reach out clients through massive marketing campaigns, to enrich the public. The current set up in the banking system is that the customers are the ones who look for the bank, who goes to the bank, but with the evolution of digital payment systems the strategy has to be the vice versa the bank has to go where the client is with the product and relevant information that surrounds the product.

More comprehensive research and in this case it should be a survey where several institutions should be included in the survey to bring more insights about the phenomenon. Topics such as those that measure the impact of electronic banking should be conducted and this should be by the help financial institutions to support such research projects financially. Purchase of modern
electronic payment machines to increase on the speed and efficiency. Besides this would/ control avoid channel conflict since if affects client’s business transaction.

Introduction of more digital payment methods to increase consumer preferences and choices of their clients seem to be limited with few electronic methods currently used. New digital banking methods like use of electronic telephone need to be introduced. For the effectiveness and efficiency in use of electronic payment, there is need for the management of financial institution to hire skilled competent labor force since inefficiency in service delivery seems to be affecting the level of profitability that would be accruing from digital payment methods.

The different complexity levels associated with certain areas involving security operations for planning and monitoring have caused many central banks to outsource all the infrastructure of internet banking operations. Banks should periodically reassess their source of technology support to determine whether a given solution continues to fit their business plan and is flexible enough to meet anticipated future needs.

Regardless of whether the technology service provided is in house or through a third party services, national banks need to have a strong link between their technology provider and their strategic planning process. This will enable the bank to link products and services with the existing technology and product mix.

The bank should rectify the issue of unreliable internet connectivity so that the next work is ever constantly available to enable its customer's access of any information they need from the system without unwanted delay and servicing of the hardware should be a constant activity in order to maintain the quality and efficiency of service delivery. There are also instances whereby when transacting a client is debited twice, or the funds being the transferred didn’t credit the beneficiary account dues to technical areas, the bank has to respond quickly to those pertinent issues.

There is a need for the client representatives and more sales consultants at FBC Bank for electronic banking services to improve on the response to clients queries on a timely fashion, results indicated that they are delays from the bank
5.4 Bibliography


European Commission.


