MANAGEMENT OF PAYMENT SYSTEMS AND PERFORMANCE OF COMMERCIAL BANKS IN KENYA: A CASE STUDY OF GUARANTY TRUST BANK (K) LIMITED

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A RESEARCH PROJECT SUBMITTED TO THE SCHOOL OF MANAGEMENT AND LEADERSHIP IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF THE DEGREE OF BACHELORS IN MANAGEMENT AND LEADERSHIP (BML) BUSINESS MANAGEMENT OPTION OF THE MANAGEMENT UNIVERSITY OF AFRICA

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DECLARATION

This project is my original work and has not been presented for the award of a degree in this University or any other institution of higher learning for examination. I further declare that I am the sole author of this research proposal, and that where other people’s work has been used, this has been acknowledged.

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BML/13/00502/1/2016

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

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DEDICATION

I dedicate this research study to my dear husband for always being supportive throughout my academic journey. I also dedicate to my Children for their constant encouragement and for being patient enough to see me go through my academic struggle thus realizing my long cherished dream.
ACKNOWLEDGEMENT

A special thanks to my supervisor, for the guidance, insight and encouragement in the writing and compilation of this case study. Your invaluable support and patience throughout this journey has been unreal and is appreciated from the bottom of my heart.

To my classmates and friends without whose interest and co-operation I could not have produced this study. I wish to thank them for supporting this initiative and affording me their time and sharing their experiences.

Finally, I thank my family for instilling in me unquestionable values and morals, thank you for your love, guidance and for always believing in me throughout the year.
ABSTRACT

The payment system is a core component of the broader Financial System and should be viewed as the infrastructure that provides the economy with highways for processing payment that result from various economic activities. The purpose of the study was to determine relationship between management of payment systems and performance of commercial banks in Kenya: a case study of Guaranty Trust Bank in Kenya. Specifically the study sought to examine the effect of regulatory framework, internal controls mechanism, operational cost reduction and system accessibility on the Performance of Guaranty Trust Bank in Kenya. The research study was conducted through a case study method. The target population in this study was 200 Guaranty Trust Bank staff. This study adopted the stratified sampling technique. From the possible 200 target population, stratified random sampling was employed to select a total of 60 sample population. This is 30% of the total population. Quantitative and qualitative data was collected using structured questionnaire containing closed and open ended questions. Data collection was done by administering a semi-structured questionnaire using drop and pick method. Descriptive statistical techniques were used to analyze data. The descriptive statistical techniques which were used include mean and standard deviation as well as percentage frequencies. The study concludes that regulatory framework, internal Controls Mechanisms, Operational costs reduction, and System accessibility account for 88.7% of the variations in performance of Guaranty Trust Bank in Kenya. The study recommends that banks comply fully with the stipulated regulations and the Central Bank must ensure that all banks comply. The research also recommends strengthening of internal controls to be able to deal with changing business, technology, legislation, competition, economic conditions and industry practices. Further, the study recommends that Guaranty Trust Bank in Kenya and more sore commercial banks in Kenya should implement effective operational cost reduction mechanisms in order for them to improve on their profitability as well as the general performance of the banking industry.
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ACRONYMS AND ABBREVIATIONS

ACH: Automatic Clearing House
ATM: Automated Teller Machine
CBD: Central Business District
CBK: Central Bank of Kenya
CEOs: Chief Executive Officers
DEA: Data Envelopment Analysis
EFT: Electronic Funds Transfer
FCPA: Foreign Corrupt Practices Act
ICT: Information and Communication Technology
IT: Information Technology
KBA: Kenya Bankers Association
MFIs: Micro Finance Institutions
POS: Point of Sales
ROA: Return on Assets
ROE: Return on Equity
RTGS: Real Time gross settlement
SI: Standing instructions
TT: Telegraphic Transfers
USA: United States of America
CHAPTER ONE
INTRODUCTION

1.0 Introduction
The chapter presents an insight and overview of the background of the study, statement of the problem, objectives of the study, significance, limitations and the scope of the study. This brings about good understanding of what the study is expected to attain in the long run.

1.1 Background
A payment system is a mechanism that enables financial obligations to be satisfied: reliably, securely, effectively, efficiently and accessibly (CBK, 2012). The payment system is a core component of the broader Financial System and should be viewed as the infrastructure that provides the economy with highways for processing payment that result from various economic activities. Stakeholders in the payment system include but not limited to Central Bank of Kenya (CBK), banking industry, Infrastructure providers (Automatic Clearing House ACH, Telkom, Card operators), Mobile service providers, Regulatory bodies including the Government.

The global banking industry has experienced remarkable changes in recent decades due to international integration of financial markets, deregulation and innovations of technology in banking services. These have created both opportunities for growth and challenges for banks to remain profitable in the current increasingly competitive environment. The Kenyan banking industry has undergone a transformation over the years. Having grown from a struggling industry in the late 90’s to attainment of Kenya shillings 90 billion in profit after tax in 2010 (CBK, Banking sector report 2010). This was facilitated by a stable political environment, increase in the number of Kenyans using the bank products, that is, Loans, Deposits and transfer of funds, in addition to the above factors the adoption of technology over the same period led to a sharp decline in the operational costs, reduced remunerations costs and improved profitability.
This study will concentrate on the main factors, roles, processes and due diligence that the banking subsector must consider and adopt to enhance efficiency in the payment system, hence reduce delays and eliminate frauds. An inefficient payment and settlement system can bring an economy to a halt (KBA, 2010). It will also look at the bank’s internal processes, procedures and controls that ensure efficient and timely transmission of client’s funds using the various payment instrument available in the Kenyan banking industry, this instrument include Real Time gross settlement (RTGS), Cheques, Electronic Funds Transfer (EFT), Standing instructions (SI), Direct Debits, and Cross Boarder Telegraphic Transfers (TT).

1.1.1. Regulatory Framework

According to the micro prudential and the macro prudential theories there is a correlation between regulations and financial performance in financial institutions. These theories state that regulations must be put in place and enforced even though this may cause a bank to shrink its assets or seek fresh capital from the stock market. The theories aim at achieving economic stability and protecting tax payers’ interests. This may have the effect of slowing down the financial performance of commercial banks (Hanson et al., 2011). The global economic recession of 2008 has taught us that there is a need to regulate financial institutions, (Sherman, 2009). The case of USA brings forward the relationship between financial regulations and financial performance.

Before 2007 USA had been deregulating their financial sector which saw tremendous growth of the financial institutions only that the growth could not be sustained and the whole industry crushed. Since the financial crisis they have introduced regulations to bring about economic stability and as a result the growth of financial institutions including banks has slowed down, KPMG (2014). Forbes Insights carried out a survey in the country between June and July 2013. Based on this, KPMG came up with a report that states that the new regulations have constrained revenue growth and profitability options. Another survey was carried out in Europe and it has been observed that new regulations on banking businesses have decreased profitability, below the 2007 peaks, (Raufuss, 2011). Therefore, surveys have confirmed the theory.
1.1.2. Internal Controls Mechanism

Internal Controls Mechanism are for the most part characterized as the procedures affected by an organization's administration, top managerial staff and other top faculty, intended to give discerning confirmation as to the accomplishment of goals in productivity and adequacy of operations, consistence with relevant arrangements, laws and directions and unwavering quality of budgetary reporting. Internal control can help an organization accomplish its execution and gainfulness targets and avoid loss of assets Cheng, Dhaliwal and Zhang, (2013). It goes far in guaranteeing trustworthy budgetary reporting consequently evading harm to an element's notoriety and different results and helping a substance to achieve its objectives and stay away from undesirable amazements and pitfalls along its way.

Internal control mechanism are key component of the Foreign Corrupt Practices Act (FCPA) of 1977 and the Sarbanes-Oxley Act of 2002, which required upgrades in inward control in United States open companies Meaghan and Nick, (2012). For the most part, setting objectives and goals, thinking of arrangements, spending plans and different desires set up criteria for control Mattila, (2007). Internal management control includes associations' structure, work and power streams, people and organization information systems expected to help the affiliation accomplish specific destinations. Legitimate execution incorporates the veritable yield or results of a relationship as measured against its normal yields. It incorporates the limit of a relationship to fulfill its principle objective through sound organization, strong organization and a decided rededication to achieving comes to fruition Walker,( 2009).

1.1.3. Operational Cost Reduction

Banks operating costs as percentage of its profits are expected to have a negative correlation with performance. In the literature, the level of operating expenses is viewed as an indicator of the management’s efficiency. For example, Ongore (2013) in his study concluded that operating costs have a negative effect on profit measures despite their positive effect on net interest margins. The inclusion of bank expenses into the performance is also supported by Ngetich (2011) and Kithinji (2010) who find a link between bank performance and expense management. Makiyan (2003)
observe the banks costs of operation determine their level of performance. “Costs influences the expenses which cut the on the profitability of a firm. Thus costs negatively affect banks profitability and performance” (Bonfim, 2009). Ngetich (2011) explains that for commercial banks in Kenya to be able to realize significant performance in their operations, they must device ways of cutting costs while maximizing how to improve profitability.

1.1.4. System Accessibility

The relationship between IT expenditures and bank’s financial performance or market share is conditional upon the extent of network effect. If the network effect is too low, IT expenditures are likely to (1) reduce payroll expenses, (2) increase market share, and (3) increase revenue and profit (Nadia, Anthony and Scholnick, 2003). The evidence however suggests that the network effect is relatively high in the US banking industry, implying that although banks use IT to improve competitive advantage, the net effect is not as positive as normally expected. In a broader context, the innovation in information technology, deregulation and globalization in the banking industry could reduce the income streams of banks, and thus the strategic responses of the banks, particularly the trend towards mega-mergers and internal cost cutting, are likely to change the dynamics of the banking industry. Given these negative result due to possible network effect, the changing banking environment could still make it insufficient to offset any reduction in income (Nadia, Anthony and Scholnick, 2003).

1.2 Statement of the Problem

Payment services are the essential within the banking industry and they account for a significant portion of operational costs and revenues. Besides, they are equally related to an augmented market share of banks, especially through credit provision. Hasan et al. (2012) contend that robust payment services are necessary in assisting the banks in establishing enduring relationships with their clients.

In Kenya, the banking industry exhibits smaller market orientation and has a penchant of fulfilling customer needs with little consideration to their interests. Consumers in Kenya experience long queues, transaction errors, and insecurity as
well as network failures. These concerns have greatly lowered the perception of the consumers on the quality of the service rendered by the banks, hence reducing their credibility, which in turn impacts on profitability.

The emergence of new technologies and competitors put a demand on the banks to align themselves with the skills necessary to keep them relevant and competitive in the market. The introduction of payment systems in Kenya was done initially to eliminate the un-acceptable delay in the payment of government contractors by minimizing interaction between contractors and government officials who have role to play in the payment system but was later extended to cover all payments from any government fund. Concerns have been raised on the payment system implementation and concerns. The study therefore identified the constraints in the payment system and proffer solutions to same.

1.3 Objectives of the Study

The purpose of the study was to determine relationship between management of payment systems and performance of commercial banks in Kenya: a case study of Guaranty Trust Bank in Kenya.

1.3.1 Specific Objectives

i. To examine the effect of regulatory framework on the Performance of Guaranty Trust Bank in Kenya

ii. To determine the relationship between internal controls mechanism and the Performance of Guaranty Trust Bank in Kenya

iii. To assess how operational cost reduction affects the Performance of Guaranty Trust Bank in Kenya

iv. To establish the effect of System accessibility on the Performance of Guaranty Trust Bank in Kenya

1.4 Research Questions

i. What is the effect of regulatory framework on the Performance of Guaranty Trust Bank in Kenya?

ii. How does internal controls mechanism affect the Performance of Guaranty Trust Bank in Kenya?
iii. To what extent does operational cost reduction affect the Performance of Guaranty Trust Bank in Kenya?

iv. What is the influence of system accessibility on the Performance of Guaranty Trust Bank in Kenya?

1.5 Justification of the Study

The study will be significant both on theory, practice, and policy

On theory the study will make appropriate recommendations that will be useful in enhancing the efficiency of the payment systems in the banking industry. In the end, this will not only improve profitability but also foster competitiveness in the banking sector.

On policy this study will benefit the banking industry to formulate and analyze internal processes and controls that will improve the efficiency and reduce turnaround time in their payment systems procedures and processes besides improving profitability due to elimination of losses resulting from fraudulent transactions.

On practice, clients using various banking products for payment and settlement of obligations will be more informed of which payment system to use while remitting funds. Moreover, it will also help them protect themselves from losses resulting from provision of incomplete instructions, delays and the effects of fraudsters. The study is will also be significant to other banking institutions. They all need to have strategic plans in place in order to survive the turbulent environment by management of payment systems.

1.6 Scope of the Study

The main objective of the study was to determine factors affecting the Performance of Commercial Banks in Kenya. The study was confined within Guaranty Trust Bank in Kenya located along Kimathi Street in Nairobi CBD. The target population was 92 employees from which a sample of 60 employees was drawn. The study took a period of three months from March 2018 to May 2018.
1.7 Chapter Summary
This chapter looked at an introduction of the study, the background of the study and the problem that the study sought to solve. It also covered objectives, research questions, justification, limitations and scope of the study.
CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

In this section literature was reviewed to access the factors affecting the Performance of Commercial Banks in Kenya. Specifically the chapter was composed of theoretical literature review, empirical literature, and critique of the existing literature relevant to the study, summary, and conceptual framework.

2.2 Theoretical Literature Review

2.2.1 Schumpeter’s Theory of Innovation

The proponent of this theory was Joseph Schumpeter in 1954. Schumpeter’s Theory posits that innovation in business is the major reason for increased investments and business fluctuations. According to Schumpeter, the cyclical process is almost exclusively the result of innovation in the organization, both industrial and commercial. By innovation he means, the changes in the methods of production and transportation, production of a new product, change in the industrial organization, opening up of a new market, etc. The innovation does not mean invention rather it refers to the commercial applications of new technology, new material, new methods and new sources of energy.

Schumpeter (1954) asserts that, entrepreneurs create an opportunity for new profits with their innovations. New products that enter the market due to innovation decrease the demand of the older ones, lower their cost, and ultimately displace them. The theory contends that whenever entrepreneurs innovate and become prosperous; competitors in the market promptly imitate and adopt the characteristics so as to benefit from the super normal profits thus reducing the profit margin. However, before the supply equates demand a new innovation emerges to begin the business cycle over again. With invention on one hand, innovation and entrepreneurship on the other, he argues that entrepreneurs seek out the activities which generate the values that expand and transform the cyclical flow of income as well. Schumpeterian competition creates imitators who emulates their competitors as well as steers the
innovation, thus encouraging investment, and leading to a boom. Porter (1992) supports this theory and argues that improvement is important for a nation’s long-run competitive advantage and economic growth as well. However, critics like Solow (2007) criticized the Schumpeterian theory of innovation as the leading endeavour to capture a complete socioeconomic arrangement in a few grand simplifications.

In addition they state that it is not only difficult but also unavailing to perform the objective evaluation of Schumpeter’s theory of the business cycle because its arguments are more based on the sociological factors rather than the economic factors. Further criticism states that Schumpeter’s theory is not basically different from the over-investment theory; it differs only in the respect of the cause of variation in investment when the economy is in stable equilibrium. Like other theories of the business cycle, this theory also leaves out other factors that cause fluctuations in the economic activities. Innovation is not the sole factor, rather is only one of the factors that cause fluctuations in the economy. In spite of these shortcomings Schumpeter’s theory of innovation is widely acceptable in the modern economy and is used to determine the economic fluctuations.

The theory is applicable for the current study in that in the context of retail payments services, innovative payment systems will profit society greatly. As Berger (2003) notes, these systems are beneficial because of their capacity to lower costs and facilitate transactions. The prospective ease of money transfers will increase the purchasing power and expand the market substantially.

2.2.2. Public Interest Theory of Bank Regulation

The proponents of this theory are George Stigler (1971), Sam Peltzman (1989) and Gary Becker (1983). The theory states that government regulation is the instrument for overcoming the disadvantages of imperfect competition, unbalanced market operation, missing markets and undesirable market results. Regulation can improve the allocation by facilitating, maintaining, or imitating market operation. The exchange of goods and production factors in markets assumes the definition, allocation and assertion of individual property rights and freedom to contract. Public interest theory lies with Pigouvian welfare economics, which portrayed the state as an omnipotent, yet benevolent, maximizer of social welfare that could efficiently correct
market failures (Pigou, 1932). It was first developed by Arthur Cecil Pigou who holds that regulation is supplied in response to the demand of the public for the correction of inefficient or inequitable market practices. Regulation is assumed initially to benefit whole society rather than particular vested interests. The regulatory body is considered to represent the interest of the society in which it operates rather than the private interests of the investors. The origins of this approach may be found in the writings of Bentley (1870–1957). Bentley argued that groups capture control of regulatory agencies to advance their interests. He dismissed the idea of public interest as a fiction that represented only the interests of group (Hantke-Domas, 2003).

Public interest approach is a conventional view of regulation rooted on welfare economics of Pigou’s (1932). Samuelson (1947) responded to the deficiencies and unfitted market by focusing on interest of consumers’ regulations in response to demand of relief from inequitable and inefficient market. The main focus of Public interest approach is public good from which group or some citizen will benefit. Under public interest approach bank regulation exist for exclusive benefit of depositors and investors. Public interest theory is usually contrasted with public choice theory that is more cynical about government behavior and motives and sees regulation as being socially inefficient.

Moreover, Stiger (1972) argued that regulation can be captured by incumbent firms to protect market from entry to competitors. Critics believe that this will only occur when the public demands a better allocative efficiency. This "theory" has no verified predictions or outcomes; therefore it is not viewed as a valid theory. Criticism does not mean that Public interest theory should be abandoned because it does explain well about bank regulation. Pigou’s, (1938) classic treatment of regulation argues where market is imperfect, Adam smith invisible hand will not work. In addition He further argued that monopoly power, externalities, and informational asymmetries create a constructive role for finance and growth, and the strong helping hand of government to help offset market failures and thus enhance social welfare.

The most critiqued aspects of Public Interest Theory are its ambiguity, and inability to determine when and if public interest has progressed. Two problems with public interest theory are: different theories arise regarding how much regulation is optimal,
and it is difficult for the legislature to ensure the regulator is acting in the public’s best interest and not its own. When the regulatory agency is established, during a period of regulatory reform, the agency is subject to close scrutiny from the government and the public alike and the regulatory agency faces strong pressure to protect consumers from market abuse. However, over time, the focus of government and public attention turn to other issues, removing the spotlight from the activities of the regulator. With this development, the regulator becomes more susceptible to regulatory capture. The competing hypothesis is that even when a regulatory body is established to protect consumers from monopolistic abuse, it will be captured by the firms that it is established to discipline.

The theory is applicable to the current study in that it will help the researcher to establish how regulations affect the performance of the bank. Bankers test if the regulator’s decision to retain, or replace, the decision-maker, following a sequence of decisions, can be explained by whether the customer or utility is being favored by the civil servant. Based on whether the regulator replaces the decision maker that it has the power to appoint, the stakeholders draw inferences about what theory can best explain the behavior of the regulator. The regulator can choose to favor the customer.

### 2.2.3. Institutional theory

The proponents of institutional theory were Meyer and Rowan (1977) and DiMaggio and Powell (1983). Institutional theorists assert that the institutional environment can strongly influence the development of formal structures in an organization, often more profoundly than market pressures. Innovative structures that improve technical efficiency in early-adopting organizations are legitimized in the environment. Ultimately these innovations reach a level of legitimization where failure to adopt them is seen as irrational and negligent (or they become legal mandates). At this point new and existing organizations will adopt the structural form even if the form doesn't improve efficiency. DiMaggio and Powell conclude that the net effect of institutional pressures is to increase the homogeneity of organizational structures in an institutional environment. Firms will adopt similar structures as a result of three types of pressures. Coercive pressures come from legal mandates or influence from organizations they are dependent upon. Mimetic pressures to copy successful forms arise during high
uncertainty. Finally, normative pressures to homogeneity come from the similar attitudes and approaches of professional groups and associations brought into the firm through hiring practices.

The theory is applicable for the current study in that it informs the researcher on how the various institutional processes affect the performance of the organization. Banks have various institutional capacities that influence their performance in the economy. Organizations grow and form new organization structures, procedures, systems and policies because they are necessary to operate. This new systems are not prompted by the rational economic aim of cost versus benefit analysis but because of constant evolving business environment which requires a change of practices and processes. Meyer and Rowan (1977) agrees that for organizations to thrive practices and process that are in tandem with the company’s activities and embraced in society. Companies that comply with this requirement thrive and their legitimacy increases notwithstanding of their current efficacy of already adopted practices and processes. Development of Internal controls in the organization is influenced by the institutional environment rather than market pressures to promote efficiency.

2.3 Empirical Literature Review

2.3.1 Effect of regulatory framework on the Performance of Commercial banks
Barth, Caprio, and Levine, (2013) studied the bank regulatory and supervisory policies in 180 countries from 1999 to 2011. They measured data on permissible bank activities, capital requirements, the powers of official supervisory agencies, information disclosure requirements, external governance mechanisms, deposit insurance, barriers to entry and loan provisioning. The dataset also provides information on the organization of regulatory agencies and the size, structure and performance of banking systems. They found that developed summary indices of key bank regulatory and supervisory policies facilitate cross-country comparisons and analysis of changes in banking policies over time.

Naceur and Kandil, (2011) used bank scope data base for 28 banks for the period 1989-2004 to analyze the effects of capital regulations on the performance and stability of banks in Egypt. The study analyzed two measures of performance: cost of
intermediation and banks’ profitability, measured by return on assets. The findings showed that as the capital adequacy ratio internalizes the risk for shareholders, banks increase the cost of intermediation, which supports higher return on assets and equity pointing out the importance of capital regulation to the performance of banks and financial stability in Egypt. The study recommends the use of structural reforms aimed at establishing more competition in the banking industry to ensure that performance indicators are commensurate with the optimal practices of the intermediation function that guarantees financial stability over time.

Yona and Inanga, 2014 carried out a study on financial sector reforms in bank regulations and supervision and its impact on service quality of Commercial Banks in Tanzania. They found that regulations also plays major role in minimizing the entry barriers and facilitating the market entry. Banking regulations such as the ones in Tanzania prescribe minimum conditions of entry and exit into banking industry and provide minimum capital requirements for banks.

Barth, Caprio, and Levine, (2005) carried out a study on bank regulation and supervision in 107 countries to examine the relationship between bank regulation/supervision and bank performance and stability. They used (1) assess different broad governmental approaches to bank regulation and supervision and (2) evaluate the efficacy of specific regulatory and supervisory policies. More specifically, we first assess two broad and competing theories of government regulation.

Epure and Lafuente, (2012) examined bank performance in the presence of risk for Costa-Rican banking industry during 1998-2007. The results showed that performance improvements follow regulatory changes and that risk explains differences in banks and non-performing loans which negatively affect efficiency and return on assets while the capital adequacy ratio has a positive impact on the net interest margin. The study further confirmed that appointing CEOs from outside the bank is associated with significantly higher performance ex post executive turnover, thus suggesting the potential benefits of new organizational practices.
Using bank level data for 80 countries in the 1988–95 period, Demirgüç-Kunt and Huizinga, (1998) analyze how bank characteristics and the overall banking environment affect both interest rate margins and bank returns. Results suggest that macroeconomic and regulatory conditions have a pronounced impact on margins and profitability. Stiglitz, (2001) noted that all the arguments that support the application of regulation to banks are naturally extended to nonbanks. However, the extent and nature of the regulation may differ markedly between banks and non-banks depending on the role the latter institutions play in the economy. Some issues involved in prudential regulation of non-banking institutions are different from the ones applied to banks because for the former ones, systemic risk, contagion and the potential disruption of the payments system do not constitute threatening issues. In the case of Micro Finance Institutions (MFIs), the task involves establishing an appropriate and cost-effective regulation that is compatible with the objectives of regulation of the financial system as a whole; and that allows sufficient margin for innovation and flexibility to facilitate the growth of the industry.

Obiero, (2002) in his study on the adequacy of the banking sector regulatory framework in reducing bank failure analyzed 39 banks, which failed in Kenya in the period 1984 to 2001. He identified ineffective board and management malpractices as the most dominant reason for bank failure. Other causes of bank failure include; high incidences of nonperforming loans, unsecured insider loans, undercapitalization and insolvency, poor lending practices, run on deposits, persistent violations of the banking act leading to closure and heavy reliance on parastatal deposits. He further noted that although the legal provisions of the banking regulatory framework is fairly comprehensive in coverage and adequate in content to reduce probability of failure, timely intervention by CBK is important if they are to be effective.

In the Kenyan context, research devoted to bank performance and efficiency has been growing and can be categorized as having been studied in the context of different models. Studies utililising Data Envelopment Analysis for instance (Kamau, 2011; Kamau, 2009) apply the DEA model to measure the productivity and efficiency of Kenyan Banks. Aikaeli, (2008) also applies the DEA model to analysed commercial bank performance in Tanzania while (Githinji, 2010; Olweny & Shipho, 2011) use the
CAMEL model to measure performance while utilizing the ROA and ROE as the independent variables

Olweny and Shipho, (2011) adopt the CAMEL model with the exclusion of the Earnings component which is provided by ROA, since they use it as the independent variable to measure profitability of banks in Kenya. They in addition include Foreign Ownership and Market Concentration to the model to cater for market factors. Using data for the period from 2002 to 2008 they find that all the components have a significant effect on profitability with Capital Adequacy the most important followed by operational efficiency, asset quality and Liquidity respectively. However, no effects of the market factors are found to affect bank performance.

Naceur and Kandil, (2009) used bank scope data base for 28 banks for the period 1989-2004 to analyze the effects of capital regulations on the performance and stability of banks in Egypt. The study analyzed two measures of performance: cost of intermediation and banks’ profitability, which was measured by return on assets. The findings showed that as the capital adequacy ratio internalizes the risk for shareholders, banks increase the cost of intermediation, which supports higher return on assets and equity pointing out the importance of capital regulation to the performance of banks and financial stability in Egypt. The study recommends the use of structural reforms aimed at establishing more competition in the banking industry to ensure that performance indicators are commensurate with the optimal practices of the intermediation function that guarantees financial stability over time.

Njeule, (2013) did a comparative study on the effects of CBK prudential regulations of 2006 on the financial performance of commercial banks. The study covered a twelve-year period from 2001 to 2012; six years prior to implementation of the prudential regulations (2001-2006) and six years after implementation of the prudential regulations (2007-2010). The study used only secondary quantitative data to determine the effects of CBK prudential regulations of 2006 on the financial performance of commercial banks, Evidence from the study indicated that there was great positive variation on the financial performance of commercial banks due to changes in capital adequacy, liquidity management, risk classification of assets and provisioning, foreign Exchange risk Exposure and corporate governance. This was an
indication that CBK regulatory requirements had great positive effects on the financial performance of commercial banks. The study further found that the adjusted R squared value for the period after introduction of CBK prudential regulations 2006 was found to be greater than that of the period prior to the regulations an indicator that the regulations greatly influenced the financial performance of commercial banks. The study recommended the need for CBK to enhance their regulatory requirements on commercial banks in Kenya, as it was revealed that Central bank of Kenya regulatory requirements enhance the financial performance of commercial banks in Kenya.

2.3.2 The relationship between internal controls mechanism and the Performance of Commercial banks

According to Sarens and De Beelde (2006) there are certain features such as management tone, risk level, controls, the extent to which information technology and transaction controls are combined, clear communication of risks and internal controls forms part of internal audit task and fraud discovery performed by organizations. There are certain features such as management tone, risk level, controls, the extent to which information technology and transaction controls are combined, clear communication of risks and internal controls forms part of internal audit task and fraud discovery performed by organizations.

According to Barra (2010) strengthening internal controls and penalties to cub fraud among managerial and non-managerial employees yield differing results. According to information collected from both groups (managerial and non-managerial) of employees revealed that more amounts of net assets are stolen per fraud when controls exist than when they are non-existent. Managerial employees need maximum penalties while non managerial employees need alternative controls and minimum penalties. The study suggests that detective controls incorporated in the internal controls contributes to the effectiveness of segregation of tasks. It’s the responsibility of every employee to participate in promoting the effectiveness of internal controls. Top management ensures that they have been established and maintained in every department.
In his study Mawanda (2008) investigated how internal controls relate to the financial soundness of organizations that provide higher education in Uganda. He endeavored to investigate if the poor performance was related with weak internal controls. The findings indicated that performance is strongly related with internal controls. The study suggests hiring competent personnel in internal audit staff to perform what the University desires. The study therefore appreciates the role of independent audit function that adds value to the operations of the organization. Internal audit functions may involve risk management, governance and management of internal controls over fraudulent activities, compliance with regulations and reliability of financial reporting.

A study done by Ewa and Udoayang (2012) to determine whether the ability to probe fraud among staff and their life style and detection of fraud was as a result of design of internal controls. He obtained data from 13 banks registered in Nigeria using a questionnaire and analyzed it using it using ratio and percentages. The study concluded that the design of internal controls impacts staff perspective on fraud. Strong internal controls prevent staff fraud as opposed to weak internal controls that provide an opportunity to perpetrate fraudulent activities.

A study done by Mwachiro (2013) about internal controls and revenue collection, investigated the internal controls in operation at Kenya Revenue Authority with a view to establish whether such internal controls have produced any meaningful results in increased collected revenue. The study established a strong relationship exist between internal controls and amount of revenue collected by Kenya revenue Authority. Weak internal controls encourage collusion for purposes of committing fraud, loss of cash and wastages of revenue collected. The five factors of internal controls i.e. control environment; risk assessment; control activities and information and communication must be in place for the institution to realize its goals.

2.3.3 Effect of Operational Cost Reduction on the Performance of Commercial banks

As banks operate, they incur costs in from of administrative costs, transaction costs, opportunity costs among others (Musyoki, 2011). A study by Musyoki (2011) investigating the impact of cost management on the financial performance of
commercial banks in Kenya established that commercial banks that reduced their costs of operation, have efficient management structure and have better working credit policies performed well compared to banks loaded with management inefficiencies and bureaucracy.

Another study by Ngetich (2011) focusing on the empirical analysis of the commercial banks efficiency and performance in Kenya concluded that banks with effective and efficient management, credit lending policy, credit portfolio, labour productivity, information technology, risk and quality management could perform twice better than banks where such internal factors are poorly managed or not aligned with organization goals and objectives.

Kithinji (2010) explains that in the wake of high cost of doing business for financial institutions, only banks that nurture good management skills and expertise to cut down on the cost will realize a boost in their performance. Migai (2010) adds that issues such as lean management, flat organization structure, organization culture and individual institutional policies determine whether a bank performs or not in the banking sector in Kenya. This is supported by Musyoki (2011) that established that commercial banks in Kenya with lean organization structure, unbloated workforce and capable to make timely financial decisions were the best performance in the Kenyan financial market.

2.3.4 Effect of System accessibility on the Performance of Commercial banks

In Malaysia, a study conducted by Suganthi and Balachandran (2001) focused on the factors of accessibility, reluctance to changes, costs, trust in one's bank, security concerns, convenience, ease of use through online survey that potentially influence internet banking adoption. The results revealed that there were positive significant relationships between accessibility, reluctance to changes and awareness with internet banking adoption.

Another study indicates that consumers will not adopt a new financial product unless it reduces their costs and does not require them to change their behaviour when using it (Bareczal and Ellen, 1997). From a customer retention perspective, Goosen, et al. (1999) point out that with the introduction of internet banking, lower switching costs and easy accessibility via the internet, customers who are dissatisfied with the
services or products offered by their banks are more likely to withdraw their loyalty if their requirements are not provided for (Poddar, 2005).

In financial services, the lifeblood of a bank is determined by how well it can gather funds from the customers at the lowest cost; buy money, do something with the money, and then sell it to their profit (Dew, 2007). Financial innovations enable firms from all sectors to raise money in larger amounts and at a cheaper cost than they could elsewhere (Lerner, 2006). It becomes obvious that there is a tendency for a bank to minimize costs and expenditures. The other major benefit from e-banking innovation is fee based income (Dew, 2007). If a bank joins in an ATM network, it can generate income from other banks’ customers that use its ATM machines or from third parties that cooperate with it. The more transactions with a third party, the more fee-based income acquired, enforcing the bank to enrich the features of e-banking transactions, such as mobile telephone top-ups, ticketing, paying telephone or electricity bills, house taxes, etc. Joining a certain ATM network will also create customer awareness of that bank and influence the market share (Iftekhar, Schmiedel and Song, 2009).

2.4 Critique of the existing literature relevant to the study

Banking regulation also plays major role in determining the cost of services of banks as interest is likely to be unregulated and hence create a great discrepancy from one bank to another. Most empirical studies have discussed Central Bank regulatory requirements on SACCO, bank regulation and bank crisis, individual Central Banks regulatory requirements effects and bank performance. There are some empirical studies that have showed that the financial performance for banks involvement in Central Bank regulatory requirement exists, but there is no clear consensus among the various authors regarding the central bank regulatory requirement effects. There are many studies that have been conducted on this area.

2.5 Summary and Research gap

This section of the study developed an empirical as well as a theoretical orientation of past researchers’ undertakings on retail payments systems and financial performance. It looked at the various theories advancing retail payment systems and measurements of financial performance. From the literature reviewed here in, it is apparent from various authors, such as Hasan et al. (2012), Humphrey et al. (2006), Kozak (2005),
and Berger (2003), that electronic retail payment services that have better IT infrastructures positively impact the performance of banks in the market. The majority of the authors from whom this paper derives its foundation seem to agree unconditionally that there exist a tremendous transformational effect in the electronic retail payment services on the performance of bank and operational efficiency. The ICT infrastructure for the banking system in Kenya has also enhanced concentration of retail equipment for the financial systems, hence greater productivity and research in the industry. It is apparent that studies in the electronic retail services and retail payment are robust. However, from the locally literature reviewed, whereas there are exist specifics to Kenya, the emphasis has been on Retail payment equipment e.g. Internet, Mobile and POS banking to the performance of commercial banks, most studies have omitted the wholesome role played by management of payment systems on the same.
2.6 Conceptual framework

Independent variables

**Regulatory Framework**
- Corporate Governance
- Capital requirement
- Credit risk Management

**Internal Controls Mechanisms**
- Control Environment
- Risk assessment
- Control activities
- Information and communication system

**Operational costs reduction**
- Operating costs as percentage of net profit

**System accessibility**
- Quick access to services

**Performance of commercial banks**
- Return on Assets
- Return on Equity

Figure 2.1: Conceptual Framework
2.7. Operationalization of variables

Operationalization is the process of strictly defining variables into measurable factors. The process defines fuzzy concepts and allows them to be measured, empirically and quantitatively. The operational definition of variables for the current study was as shown in the table 2.1.

Table 2.1. Operational definition of variables

<table>
<thead>
<tr>
<th>Objective</th>
<th>Type of Variable</th>
<th>Indicator(s)</th>
<th>Measurement scale</th>
<th>Method of Data Collection tools</th>
<th>Method of Data Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>To examine the effect of regulatory framework on the Performance of Guaranty Trust Bank in Kenya</td>
<td>Independent variable</td>
<td>Corporate Governance</td>
<td>Nominal</td>
<td>Questionnaire</td>
<td>Descriptive statistics.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Capital requirement</td>
<td>Ordinal</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Credit risk Management</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To determine the relationship between internal controls mechanism and the Performance of Guaranty Trust Bank in Kenya</td>
<td>Independent variable</td>
<td>Control Environment Risk assessment Control activities Information and communication system</td>
<td>Ordinal</td>
<td>Questionnaire</td>
<td>Regression</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To assess how operational cost reduction affects the Performance of Guaranty Trust Bank in</td>
<td>Independent variable</td>
<td>Operating costs as percentage of net profit</td>
<td>Nominal</td>
<td>Questionnaire</td>
<td>Descriptive statistics.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
To establish the effect of System accessibility on the Performance of Guaranty Trust Bank in Kenya

<table>
<thead>
<tr>
<th>Kenya</th>
</tr>
</thead>
<tbody>
<tr>
<td>To establish the effect of System accessibility on the Performance of Guaranty Trust Bank in Kenya</td>
</tr>
<tr>
<td>Independent variable</td>
</tr>
<tr>
<td>Quick access to services</td>
</tr>
<tr>
<td>Nominal Ordinal</td>
</tr>
<tr>
<td>Questionnaire</td>
</tr>
<tr>
<td>Descriptive statistics</td>
</tr>
</tbody>
</table>

2.8. Chapter Summary

This chapter discussed theories patent as written and reviewed by other authors namely Schumpeter’s Theory of Innovation, Public Interest Theory of Bank Regulation and Institutional theory and conceptual models. The chapter also discussed the empirical literature addressing the objectives of the study, critique of the existing literature and conceptual framework.
CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

Research methodology is essential in this study as it contains information on how the research process was designed and conducted in a manner that was believed to cover both basic and advanced concepts in a clear and concrete manner. It also believed to that it gave an insight to the variables and methodical approaches and assessment strategies on interpretations and other considerations. This chapter contained the research design, population and sampling design, data collection methodology, research procedures and data analysis methods.

3.1 Research design

The research study was conducted through a case study method. This method is preferred because it allows for generalization of research findings. Case study is an in-depth investigation of an individual, institution, or a phenomenon. It involves a careful and complete observation of social units or a phenomenon (Bhattacherjee, 2012). It also offers a comprehensive understanding of the social units or phenomenon under study. Case study is a method of in-depth study rather than breadth and places more emphasis on the full contextual analysis of the limited number of events or conditions and other inter-relations, which relies on qualitative data (Cooper and Schindler, 2005).

Researchers such as Bita (2011) and Chepkwony (2012) have successfully used case study in their research work. This study therefore carried out a case study of Guaranty Trust Bank in Kenya in order to establish the relationship between the management of payment systems and performance of commercial banks in Kenya. The advantages of using a case study are that it enables an in-depth understanding of the behavior patterns of the unit under study. It also facilitates intensive study of that unit unlike other methods of study. The case study also enriches knowledge which otherwise had been generalized.
3.2 Target Population

Guaranty Trust Bank in Kenya currently had five departments and an entire population of two hundred staff in the departments studied. Kombo and Tromp (2009), refers to population as an entire group of persons or elements that have at least one thing in common. They further assert that it is important for the researcher to find out as much as possible about the study population. The target population in this study was 200 Guaranty Trust Bank staff.

Table 3.2: Target Population

<table>
<thead>
<tr>
<th>Management and Staff</th>
<th>Population size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finance department</td>
<td>85</td>
</tr>
<tr>
<td>Loans</td>
<td>84</td>
</tr>
<tr>
<td>Human Resource Department</td>
<td>6</td>
</tr>
<tr>
<td>Marketing</td>
<td>20</td>
</tr>
<tr>
<td>Procurement</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>200</strong></td>
</tr>
</tbody>
</table>

3.3 Sample and Sampling Technique

Sampling is the process of selecting the people who will participate in a study. This process should be representative of the whole population. Sampling is hence the procedure, process or technique of choosing a sub-group from a population to participate in the study, (Ogula, 2005). A sample is a smaller group or sub-group obtained from the accessible population (Mugenda and Mugenda, 1999). This study adopted the stratified sampling technique. From the possible 200 target population, stratified random sampling was employed to select a total of 60 sample population. This is 30% of the total population. Mugenda and Mugenda (2003) states that in stratified sampling where population within each strata is known, a sample of 10-30% is adequate representation for data collection.
Table 3.3: Sample Size

<table>
<thead>
<tr>
<th>Management and Staff</th>
<th>Population size</th>
<th>Sample ratio</th>
<th>Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finance department</td>
<td>85</td>
<td>0.3</td>
<td>26</td>
</tr>
<tr>
<td>Loans</td>
<td>84</td>
<td>0.3</td>
<td>25</td>
</tr>
<tr>
<td>Human Resource Department</td>
<td>6</td>
<td>0.3</td>
<td>2</td>
</tr>
<tr>
<td>Marketing</td>
<td>20</td>
<td>0.3</td>
<td>6</td>
</tr>
<tr>
<td>Procurement</td>
<td>5</td>
<td>0.3</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>200</strong></td>
<td></td>
<td><strong>60</strong></td>
</tr>
</tbody>
</table>

3.4 Instruments

Quantitative and qualitative data was collected using structured questionnaire containing closed and open ended questions. Kuter and Yilmaz (2001) define a questionnaire as a method for the elicitation, recording and collecting of information. Kothari (2003) argues that questionnaires generate data in a very systematic and ordered fashion. The questionnaire was divided into two parts. The first part contained biographical information while the second part contained research questions. The questions used were both structured and unstructured. In order to re-enforce and confirm the responses given by the employees, questionnaires were issued out and collected after three days for analysis. Interviews were used once in a while to clarify unclear and ambiguous questions that the respondents cannot understand.

3.5 Validity and Reliability test

A reliable instrument consistently yields the same results when used repeatedly to collect data from the same sample drawn from a population (Orodho, 2005). Reliability is therefore the degree to which research instruments yields consistent results when administered a number of times (Shaw& Wright, 1969). An instrument is reliable when it measures a variable accurately and consistently is used repeatedly.
under similar conditions. Reliability of a questionnaire is concerned with the consistency of responses to the researcher’s questions (Mitchell, 1996). Reliability of the questionnaire was evaluated through administration of the said instrument to the pilot group. The researcher used the most common internal consistency measure known as Cronbach’s alpha (α). It indicates the extent to which a set of test items can be treated as measuring a single latent variable ((Rousson, Gasser and Seifer, 2002). A reliability coefficient of 0.75 was indicative of internal consistency in the items in measuring the concept of interest (Frankell & Wallen, 2000; Mugenda & Mugenda, 2010). The suggestions made by the respondents on words and phrases that are not clear were incorporated in the final instrument

3.6.2 Validity of the research instrument

Validity can be defined as the degree to which results obtained from an analysis of data actually represents the phenomena under study (Mugenda & Mugenda, 2010). Validity of a data Collection tool ensures that the items in the instrument are representative of the subject area while the content validity ensures that the tool actually measures what it is supposed to measure (Fraenkel & Wallen, 2000). Validity was ensured by having objective questions included in the questionnaire. The Questionnaire was pre-tested by asking colleagues whether the questions are clearly worded and easily understood, the validity of the research instruments was established by seeking options of experts in the field of study. One of the main reasons for conducting the pilot study is to ascertain the validity of the questionnaire. The study used content validity to ascertain the validity of the questionnaires. Content validity is concerned with sample-population representativeness. (Gillham, 2008) stated that the knowledge and skills covered by the test items should be representative to the larger domain of knowledge and skills.

3.6 Data collection procedure

Data collection involved consulting primary data sources in order to elicit information, facts, evidence, proofs or truth regarding the research problems. The study used questionnaire as a source of data. Primary data was collected from the immediate source for the purpose of the study. Data collection also involved gathering both numeric information as well as text information so that the final database
represented both quantitative and qualitative information. In this study, data collection was done by administering a semi-structured questionnaire using drop and pick method.

3.7 Data processing and analysis

The researcher employed both qualitative and quantitative data analysis techniques. Quantitative data on responses from questions in the questionnaire was coded for ease in systematic data tracking. A master questionnaire was prepared to match un-coded questionnaires issued to respondents. All collected data was edited to ensure compliance to accuracy, consistency and relevance to research questions. Editing was done to check, irrelevance, contextual mistakes, omissions and missing responses that should be filled or disregarded. Data entry was done into Statistical Packages for Social Scientists (SPSS) computing program for analysis for ease of presentation on frequency tables and graphs. The procedure for data analysis and coding was by the help of Statistical Package for the Social Sciences (SPSS), computer software to be used for analyzing data. Coding, in essence, entails the attribution of a number to a piece of data, or group of data, with the express aim of allowing such data to be analyzed in quantitative terms (Denscombe, 2007). Descriptive statistical techniques was then used to analyze data. Healey (2005) explains that descriptive statistics allow researchers to summarize large quantities of data using measures that are easily understood by an observer. This, consist of graphical and numerical techniques for summarizing data, in other words, reducing a large mass of data to simpler, more understandable terms. Denscombe (2007) considers this process a vital part of making sense of the data. The descriptive statistical techniques which were used included mean and standard deviation as well as percentage frequencies.

In addition, the study employed inferential statistics in the form of multiple regressions to establish determinants of the performance of Guaranty Trust Bank in Kenya.

The regression equation was:

\[ Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \epsilon \]

Where \( Y \) presented performance,
$\beta_0$ is a constant term,

$X_1$- Regulatory Framework,

$X_2$- Internal Controls Mechanisms,

$X_3$- Operational costs reduction

$X_4$- System accessibility

$\varepsilon$- Error term

Data was presented in tables and graphs while the explanation to the same was presented in prose. F-test was used to test the joint significance of all coefficients and t-test for the test significance of individual coefficients. The significance of the regression model was determined at 95% confidence interval and 5% level of significance.

3.8 Ethical Consideration

Permission was obtained from the concerned authorities including the National Council for Science and Technology and Innovation (NACOSTI) and the Guaranty Trust Bank in Kenya before commencing the study. Participation was voluntary and written informed consent of prospective participants were obtained which states that the consenting party is aware and that they could withdraw from the study up until the time the data was analyzed. Participants were not necessarily required to put their names on the questionnaire and responses were treated with utmost confidentiality.

3.9 Chapter Summary

This chapter looked at the research methodology of the study. Specifically it discussed the research design, target population, sample and sampling techniques. It also covered research instruments, validity and reliability of test, data collection procedure and data processing and analysis.
CHAPTER FOUR RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

This chapter presents results arising from the analysis of data collected using questionnaires. The data collected was analyzed using descriptive and inferential statistical methods for each variable and the findings presented in tabular and figure summaries, and their implications discussed.

4.1.1 Questionnaire Return Rate

Table 4.4: Questionnaire Return Rate

<table>
<thead>
<tr>
<th>No. of questionnairesReturned</th>
<th>Target No. of respondents</th>
<th>Response Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>47</td>
<td>60</td>
<td>95.92%</td>
</tr>
</tbody>
</table>

The high questionnaire response rate (78.33%) shown in Table 4.4 resulted from the method of administration of the instrument, which was in this case researcher administered. This is acceptable according to Mugenda and Mugenda (2003). This method also ensured that the respondents’ queries concerning clarity were addressed at the point of data collection; however, caution was exercised so as not to introduce bias in the process it also reduced the effects of language barrier, hence, ensuring a high instrument response and scoring rate.

4.2 Demographic Information

This section discusses the demographic characteristics of the respondents in the study. These include, distribution of respondents by their gender, age, level of education and the results are presented in terms of the study objectives.

4.2.1 Distribution of respondents by gender

In this section the researcher sought to establish the gender of the respondents. Their responses are shown in Figure 4.2
The respondents were asked to indicate their gender; the results show that (55.3%) of the respondents were males while (44.7%) of the respondents were females. This implies that there were more males respondents than females in Guaranty Trust Bank in Kenya

4.2.2 Distribution of Respondents by their Age bracket

The researcher sought to know the age group of the respondents and the figures were as shown below
From the Figure 4.3 above, (54.3%) of the respondents were between 41-50 years of age were the majority, those of the age above 50 years with 3 (26%), and those with ages between 31-40 years were (13.8%). This implies that majority of the respondents were between 41-50 years of age.

4.2.3 Number of years in current position

A combined question sought to know the work experience to establish the knowledge held about by the respondents. The respondents gave the following range of experience when asked
Table 4.5: Number of years in current position

<table>
<thead>
<tr>
<th>Experience Range</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>6-11 Years</td>
<td>18.8%</td>
</tr>
<tr>
<td>12-17 Years</td>
<td>22.3%</td>
</tr>
<tr>
<td>18-23 Years</td>
<td>45.7%</td>
</tr>
<tr>
<td>24 years and above</td>
<td>18.1%</td>
</tr>
</tbody>
</table>

The findings reveals that majority of the respondents (45.7%) were of between 18-23 years of experience, 22.3% went for between 12-17 years, 18.1% were of 24 years and above of experience while the remaining 13 who represented 13.8 % had 6-11 years of experience.

4.2.4 Level of Education of the Respondent

In order to fully understand the relationship between management of payment systems and performance, the employee’s level of education should enable this to be done easily. The respondents were asked to state their level of education according to Figure 4.4.
The majority of the respondents were degree holders (70.2%) and college holders (26.6%) level education. Degree holders and college holders combined were over (96.8%). The degree holders were mainly the manager, head of departments, who participated in the study. The postgraduate and secondary level certificate holders were only (3.2%). This implies that majority of the respondents were well educated and hence higher chances of giving reliable information.

4.3 Effect of Regulatory framework on the Performance of Guaranty Trust Bank in Kenya

The first objective of the study sought to examine the effect of regulatory framework on the Performance of Guaranty Trust Bank in Kenya. The study findings are as presented in the subsequent subheadings.

4.3.1 Regulatory framework set on the Performance

The study sought to establish whether there are Regulatory framework set on the Performance of Guaranty Trust Bank in Kenya. Results were analyzed as in Table 4.6
Table 4.6: Regulatory framework set on the Performance

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>44</td>
<td>93.6</td>
</tr>
<tr>
<td>No</td>
<td>3</td>
<td>6.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>47</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

From Table 4.6, 44 (93.6%) of the respondents indicated that there are regulatory framework set on the performance of Guaranty Trust Bank in Kenya while 3 (6%) of the respondents indicated that there are no regulatory framework set on the performance of Guaranty Trust Bank in Kenya. This implies that there are regulatory framework set on the performance of Guaranty Trust Bank in Kenya.

4.3.2 Extent of influence of Regulatory framework on the Performance

Respondents were asked to indicate the extent to which Regulatory framework influence the Performance of Guaranty Trust Bank in Kenya.

Figure 4.5: Extent of influence of Regulatory framework on the Performance

From Figure 4.5, (67%) of the respondents felt that regulatory framework influence the performance of Guaranty Trust Bank in Kenya to a large extent, 21% of the
respondents felt to a moderate extent while a few (12%) of the respondents felt that regulatory framework influence the performance of Guaranty Trust Bank in Kenya to a small extent. This implies that Regulatory framework influence the Performance of Guaranty Trust Bank in Kenya to a large extent. Similar to the study findings, Njeule, (2013) did a comparative study on the effects of CBK prudential regulations of 2006 on the financial performance of commercial banks. The study covered a twelve-year period from 2001 to 2012; six years prior to implementation of the prudential regulations (2001-2006) and six years after implementation of the prudential regulations (2007-2010). The study used only secondary quantitative data to determine the effects of CBK prudential regulations of 2006 on the financial performance of commercial banks. Evidence from the study indicated that there was great positive variation on the financial performance of commercial banks due to changes in capital adequacy, liquidity management, risk classification of assets and provisioning, foreign Exchange risk Exposure and corporate governance. This was an indication that CBK regulatory requirements had great positive effects on the financial performance of commercial banks. The study further found that the adjusted R squared value for the period after introduction of CBK prudential regulations 2006 was found to be greater than that of the period prior to the regulations an indicator that the regulations greatly influenced the financial performance of commercial banks. The study recommended the need for CBK to enhance their regulatory requirements

4.3.3 Effect of regulatory framework on the performance

The study also sought to establish the extent of agreement with various statements on effect of regulatory framework on the performance. The status of this variable was rated on a 5 point Likert scale ranging from; SA-strongly agree (5), Agree(4), N-neutral(3), D-disagree(2), SD-strongly disagree(1). The study findings are depicted in table 4.7 below.
Table 4.7: Effect of regulatory framework on the performance

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>capital adequacy requirement affects profitability of Guaranty Trust Bank in Kenya</td>
<td>3.9852</td>
<td>0.27586</td>
</tr>
<tr>
<td>liquidity regulation ratio affects profitability of Guaranty Trust Bank in Kenya</td>
<td>3.8562</td>
<td>0.01452</td>
</tr>
<tr>
<td>interest cap affects profitability of Guaranty Trust Bank in Kenya</td>
<td>4.4356</td>
<td>0.12546</td>
</tr>
<tr>
<td>Forex exposure cap affects profitability of the Guaranty Trust Bank in Kenya</td>
<td>3.7825</td>
<td>0.23654</td>
</tr>
<tr>
<td>credit risk management regulation affects financial performance of listed Guaranty Trust Bank in Kenya</td>
<td>4.3253</td>
<td>.236542</td>
</tr>
</tbody>
</table>

Based on the study findings, majority of the respondents strongly agreed that interest cap affects profitability of Guaranty Trust Bank in Kenya (mean=4.4356) and that credit risk management regulation affects financial performance of listed Guaranty Trust Bank in Kenya (mean=4.3253). In addition, respondents agreed that capital adequacy requirement affects profitability of Guaranty Trust Bank in Kenya (mean=3.9852), liquidity regulation ratio affects profitability of Guaranty Trust Bank in Kenya (mean=3.8562) and that forex exposure cap affects profitability of the Guaranty Trust Bank in Kenya (mean=3.7825). This implies that interest cap affects and credit risk management regulation affects profitability and financial performance of Guaranty Trust Bank in Kenya. Similarly, Achou and Tenguh, (2016) observed that there is a significant relationship between bank performance (in terms of return on asset) and credit risk management (in terms of loan performance). Better credit risk management results in better bank performance. Thus, it is of crucial importance that banks practice prudent credit risk management and safeguarding the assets of the banks and protect the investors’ interests. Credit risk management is a process of
decision making which involves minimizing losses from both bad debts and costs of debt operation while maximizing the value of credit sales. Financial Performance is the operational strength of a firm in relation to its revenue and expenditure as revealed by its financial statements. In any organization especially commercial banks, financial performance is affected by credit risk (Amahalu et al., 2017).

4.4 Relationship between Internal Controls Mechanism and the Performance
The second objective of the study sought to determine the relationship between internal controls mechanism and the Performance of Guaranty Trust Bank in Kenya. The study findings are as shown below

4.4.1 Internal Controls Mechanism adopted by Guaranty Trust Bank in Kenya
The researcher sought to investigate whether there are internal controls mechanisms adopted by Guaranty Trust Bank in Kenya. The findings are as presented below

**Figure 4.6: Internal Controls Mechanism adopted by Guaranty Trust Bank in Kenya**

![Internal Controls Mechanism adopted by Guaranty Trust Bank in Kenya](image)

**Source: Field Data**

From the responses, 71% of the respondents, who were the majority, indicated that there are internal controls mechanisms adopted by Guaranty Trust Bank in Kenya, while only 29% felt otherwise. This indicates there are internal controls mechanisms adopted by Guaranty Trust Bank in Kenya.
4.4.2 Extent of influence of internal controls mechanism on the Performance

Respondents were asked to indicate the extent to which internal controls mechanism influence the Performance of Guaranty Trust Bank in Kenya.

**Figure 4.7: Extent of influence of internal controls mechanism on the Performance**

According to the study findings in Figure 4.7, majority of the respondents (57%) indicated that internal controls mechanism influence the Performance of Guaranty Trust Bank in Kenya to a large extent, 36% indicated to a moderate extent while only 7% of the respondents who indicated that internal controls mechanism influence the Performance of Guaranty Trust Bank in Kenya to a small extent. This is an implication that internal controls mechanism influences the Performance of Guaranty Trust Bank in Kenya to a large extent. In tandem with the study findings, Jensen, (2013) opined that Internal control systems including internal audits are intended primarily to enhance the reliability of financial performance, either directly or indirectly by increasing accountability among information providers in an organization. Internal control therefore has a much broader purpose such that the organization level of control problems associated with lower revenues, which explore links between disclosure of material weakness and fraud, earnings management or restatements (Doyle et al., 2015).
4.4.3 Effect of internal controls mechanism on the performance

The study also sought to establish the extent of agreement with various statements on Effect of internal controls mechanism on the performance. The status of this variable was rated on a 5 point Likert scale ranging from; SA-strongly agree (5), Agree(4), N-neutral(3), D-disagree(2), SD-strongly disagree(1). The study findings are depicted in table 4.8 below.

Table 4.8: Effect of internal controls mechanism on the performance

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policies and procedures exist to ensure critical decisions are made with appropriate approval</td>
<td>4.0213</td>
<td>0.67168</td>
</tr>
<tr>
<td>The reporting on organizational structures spells out all the responsibilities of each section/unit in the organization</td>
<td>4.1064</td>
<td>0.30998</td>
</tr>
<tr>
<td>Management receives timely, relevant and reliable reports for decision making</td>
<td>4.0638</td>
<td>0.56432</td>
</tr>
<tr>
<td>Communication helps to evaluate how well guidelines and policies of the organization are working and being implemented.</td>
<td>4.117</td>
<td>0.7011</td>
</tr>
<tr>
<td>Policies and procedures exist to ensure critical decisions are made with appropriate approval</td>
<td>3.9213</td>
<td>0.41786</td>
</tr>
</tbody>
</table>

Source: Field Data

Based on the study findings, the respondents strongly agreed that, Communication helps to evaluate how well guidelines and policies of the organization are working and being implemented (mean=4.117), and that The reporting on organizational structures spells out all the responsibilities of each section/unit in the organization (mean=4.1064). In addition, respondents agreed that Management receives timely, relevant and reliable reports for decision making (mean=4.0638). Policies and procedures exist to ensure critical decisions are made with appropriate approval (mean=4.0213), and that Policies and procedures exist to ensure critical decisions are made with appropriate approval (mean=3.9213). This implies that Communication
helps to evaluate how well guidelines and policies of the organization are working and being implemented and that the reporting on organizational structures spells out all the responsibilities of each section/unit in the organization. Similary, Fadzil et al. (2015) opined that the internal controls provide an independent appraisal of the quality of managerial performance in carrying out assigned responsibilities for better performance. According to Fadzil et al. (2015), an effective internal control system unequivocally correlates with organizational success in meeting its revenue target level. Effective internal control overperformance involves; regular a review of the reliability and integrity of financial and operating information, a review of the controls employed to safeguard assets, an assessment of employees' compliance with management policies, procedures and applicable laws and regulations, an evaluation of the efficiency and effectiveness with which management achieves its organizational objectives. Most organizations no longer set up internal control system as a regulatory requirement but also because it helps in ensuring that all management activities are appropriately carried out. Further, organizations are making it a point of duty to train, educate, and sensitize their employees on how to use these internal control systems since its effectiveness depends on the competency and dependability of the people using it. All these control actions ensure that any risks that may affect the company’s ability to achieve its goals are appropriately avoided and should occur at all levels and in all functions of the organization.

4.5 Influence of operational cost reduction on Performance of Guaranty Trust Bank in Kenya

The third objective of the study sought to establish how operational cost reduction affects the Performance of Guaranty Trust Bank in Kenya. The study findings are as shown in subsequent subheadings

4.5.1 Mechanisms for Operational Cost Reduction Adopted

Respondents were kindly asked to indicate whether there are mechanisms for operational cost reduction adopted by Guaranty Trust Bank in Kenya. Figure 4.8 presents the study findings
Findings from Figure 4.8 indicates that majority of the respondents (86%) agreed that there are mechanisms for operational cost reduction adopted by Guaranty Trust Bank in Kenya, while the few remaining as represented by 14% were on the contrary opinion. This is an indication that there are mechanisms for operational cost reduction adopted by Guaranty Trust Bank in Kenya.

4.5.2 Extent of influence of operational cost reduction mechanism on the Performance

Respondents were asked to indicate the extent to which operational cost reduction mechanism influence the Performance of Guaranty Trust Bank in Kenya. Figure 4.9 indicates the study findings.
According to the study findings in Figure 4.9, majority of the respondents (63%) indicated that operational cost reduction mechanisms influence the performance of Guaranty Trust Bank in Kenya to a large extent, 33% indicated to a moderate extent while only 4% of the respondents who indicated that operational cost reduction mechanisms influence the Performance of Guaranty Trust Bank in Kenya to a small extent. This is an implication that operational cost reduction mechanisms influence the performance of Guaranty Trust Bank in Kenya to a large extent. In tandem with the study findings, Musyoki, (2011) opined that as banks operate, they incur costs in from of administrative costs, transaction costs, opportunity costs among others. A study by Musyoki (2011) investigating the impact of cost management on the financial performance of commercial banks in Kenya established that commercial banks that reduced their costs of operation, have efficient management structure and have better working credit policies performed well compared to banks loaded with management inefficiencies and bureaucracy.

4.5.3 Effect of operational cost reduction mechanisms on the Performance

The study also sought to establish the extent of agreement with various statements on effect of operational cost reduction mechanisms on the Performance. The status of this variable was rated on a 5 point Likert scale ranging from; SA-strongly agree (5),
Agree(4), N-neutral(3), D-disagree(2), SD-strongly disagree(1). The study findings are depicted in table 4.9 below.

**Table 4.9: Effect of operational cost reduction mechanisms on the Performance**

<table>
<thead>
<tr>
<th>Description</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banks costs of operation determine their level of performance</td>
<td>4.266</td>
<td>0.44421</td>
</tr>
<tr>
<td>Costs influences the expenses which cut the on the profitability of a firm</td>
<td>4.1915</td>
<td>0.39558</td>
</tr>
<tr>
<td>Costs affect banks profitability and performance</td>
<td>4.2872</td>
<td>0.47795</td>
</tr>
<tr>
<td>Banks operating costs as percentage of its profits are expected to have a negative correlation with performance</td>
<td>4.2979</td>
<td>0.45978</td>
</tr>
<tr>
<td>The level of operating expenses is viewed as an indicator of the management’s efficiency</td>
<td>4.2979</td>
<td>0.45978</td>
</tr>
<tr>
<td>operating costs have a negative effect on profit measures</td>
<td>3.8423</td>
<td>0.54631</td>
</tr>
</tbody>
</table>

**Source: Field Data**

Based on the study findings, the respondents strongly agreed that Banks operating costs as percentage of its profits are expected to have a negative correlation with performance and The level of operating expenses is viewed as an indicator of the management’s efficiency (mean=4.2979) and that Costs affect banks profitability and performance (mean=4.2872). In addition respondents agreed that Banks costs of operation determine their level of performance (mean=4.266), Costs influences the expenses which cut the on the profitability of a firm (mean=4.1915), and that operating costs have a negative effect on profit measures despite their positive effect on net interest margins (mean=3.8423). This implies that Banks operating costs as percentage of its profits are expected to have a negative correlation with performance.
and the level of operating expenses is viewed as an indicator of the management’s efficiency and that Costs affect banks profitability and performance. In line with the study findings, Kithinji (2010) explains that in the wake of high cost of doing business for financial institutions, only banks that nurture good management skills and expertise to cut down on the cost will realize a boost in their performance. Migai (2010) adds that issues such as lean management, flat organization structure, organization culture and individual institutional policies determine whether a bank performs or not in the banking sector in Kenya. This is supported by Musyoki (2011) that established that commercial banks in Kenya with lean organization structure, unbloated workforce and capable to make timely financial decisions were the best performance in the Kenyan financial market.

4.6 Effect of System accessibility on the Performance of Guaranty Trust Bank

The final objective of this study sought to establish the effect of System accessibility on the Performance of Guaranty Trust Bank in Kenya

4.6.1 Accessibility of Systems

Respondents were kindly asked to indicate whether systems at the Guaranty Trust Bank in Kenya are accessible and the study findings are as shown in Figure 4.10 below

Figure 4.10: Accessibility of Systems
Majority of the respondents as represented by 65% agreed that systems at the Guaranty Trust Bank in Kenya are accessible while the remaining 35% felt that systems at the Guaranty Trust Bank in Kenya are not accessible. This portrays that systems at the Guaranty Trust Bank in Kenya are accessible.

**4.6.2 Extent of influence of System accessibility on the Performance**

Respondents were asked to indicate the extent to which system accessibility influence the Performance of Guaranty Trust Bank in Kenya. Figure 4.11 indicates the study findings.
Figure 4.11: Extent of influence of System accessibility on the Performance

From Figure 4.11, (71%) of the respondents felt that system accessibility influence the performance of Guaranty Trust Bank in Kenya to a large extent, 24% of the respondents felt to a moderate extent while a few (5%) of the respondents felt that system accessibility influence the performance of Guaranty Trust Bank in Kenya to a small extent. This implies that system accessibility influence the Performance of Guaranty Trust Bank in Kenya to a large extent. In line with the study findings, a study conducted by Suganthi and Balachandran (2001) focused on the factors of accessibility, reluctance to changes, costs, trust in one's bank, security concerns, convenience, ease of use through online survey that potentially influence internet banking adoption. The results revealed that there were positive significant relationships between accessibility, reluctance to changes and awareness with internet banking adoption.

4.6.3 Effect of system accessibility on the performance

The study also sought to establish the extent of agreement with various statements on effect of system accessibility on the performance of Guaranty Trust Bank in Kenya in Kenya. The status of this variable was rated on a 5 point Likert scale ranging from; SA-strongly agree (5), Agree(4), N-neutral(3), D-disagree(2), SD-strongly disagree(1). The study findings are depicted in table 4.10 below.
Table 4.10: effect of system accessibility on the performance

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quick access to services affects profitability of Guaranty Trust Bank in Kenya</td>
<td>4.0319</td>
<td>0.61263</td>
</tr>
<tr>
<td>Fast accessibility of systems have a positive influence on profitability of Guaranty Trust Bank in Kenya</td>
<td>4.0957</td>
<td>0.46534</td>
</tr>
<tr>
<td>Fast accessibility of systems have a positive influence on profitability of Guaranty Trust Bank in Kenya</td>
<td>3.9362</td>
<td>0.70036</td>
</tr>
<tr>
<td>Management efficiency affects profitability of Guaranty Trust Bank in Kenya</td>
<td>4.0106</td>
<td>0.37373</td>
</tr>
</tbody>
</table>

Source: Field Data

From the study findings, the respondents strongly agreed that, Fast accessibility of systems have a positive influence on profitability of Guaranty Trust Bank in Kenya (mean=4.0957), and that Quick access to services affects profitability of Guaranty Trust Bank in Kenya (mean=4.0319). In addition respondents agreed that Management efficiency affects profitability of Guaranty Trust Bank in Kenya (mean=4.0106) and that Fast accessibility of systems have a positive influence on profitability of Guaranty Trust Bank in Kenya (mean=3.9362). This implies that fast accessibility of systems has a positive influence on profitability of Guaranty Trust Bank and that Quick access to services affects profitability of Guaranty Trust Bank. Similarly, Bareczal and Ellen, (1997) opined that consumers will not adopt a new financial product unless it reduces their costs and does not require them to change their behaviour when using it. From a customer retention perspective, Goosen, et al. (1999) point out that with the introduction of internet banking, lower switching costs and easy accessibility via the internet, customers who are dissatisfied with the services or products offered by their banks are more likely to withdraw their loyalty if their requirements are not provided for (Poddar, 2005).
4.7 Inferential Statistics

The study further applied general linear model to determine the relationship between management of payment systems and performance of commercial banks in Kenya with specific focus on Guaranty Trust Bank in Kenya. This included regression analysis, the model, analysis of variance and coefficient of determination.

4.7.1 Regression Analysis

In its endeavour, the study sought to determine the goodness of fit of the regression equation using the coefficient of determination between the overall independent variables and performance of Guaranty Trust Bank in Kenya. Coefficient of determination established the strength of the relationship. Coefficient of determination explains the extent to which changes in the dependent variable can be explained by the change in the independent variables or the percentage of variation in the dependent variable (Performance of Guaranty Trust Bank in Kenya) that is explained by the regulatory framework, internal controls mechanisms, operational costs reduction, and system accessibility as the independent variables of the firm.

4.7.2 Model Summary

Model summary table, provides information about the regression line’s ability to account for the total variation in the dependent variable.

Table 4.11: Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.942a</td>
<td>.887</td>
<td>.881</td>
<td>.02131</td>
</tr>
</tbody>
</table>


b. Predictors: (Constant), operational costs reduction, regulatory framework, internal controls mechanisms, and system accessibility

Table 4.11 illustrates the strength of the relationship between performance of Guaranty Trust Bank in Kenya and independent variables. From the determination coefficients, it can be noted that there is a strong relationship between dependent and
independent variables given an $R^2$ value of 0.887 and adjusted to 0.881. This shows that the independent variables (regulatory framework, internal Controls Mechanisms, Operational costs reduction, and System accessibility) account for 88.7% of the variations in performance of Guaranty Trust Bank in Kenya.

### 4.7.3 ANOVA Results

Analysis of variance (ANOVA) is a collection of statistical models used to analyze the differences among group means and their associated procedures (such as "variation" among and between groups).

**Table 4.12: ANOVA of the Regression**

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>12.223</td>
<td>4</td>
<td>3.05575</td>
<td>7.171607</td>
</tr>
<tr>
<td>Residual</td>
<td>18.322</td>
<td>43</td>
<td>0.42609</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>30.545</td>
<td>47</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


b. Predictors: (Constant), Operational costs reduction, Regulatory framework, Internal Controls Mechanisms, and System accessibility

Analysis of Variance (ANOVA) was used to make simultaneous comparisons between two or more means; thus, testing whether a significant relationship exists between variables (dependent and independent variables). This helps in bringing out the significance of the regression model. The ANOVA results presented in Table 4.12 shows that the regression model has a margin of error of $p = 0.008$. This indicates that the model is significant since its $p$ value is less that significance test of 0.05. An $F$ statistic of 7.171 indicated that the combined model was significant. This was supported by a probability value of (0.008). The reported significance level of (0.00818) is less than the conventional probability of (0.05) hence significant.
4.7.4 Coefficient of Correlation

Multiple regression analysis was conducted so as to determine the relationship between the dependent variable and the four independent variables.
Table 4.13: Coefficient of Correlation

<table>
<thead>
<tr>
<th></th>
<th>Un-standardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>(Constant)</td>
<td>3.77</td>
<td>0.451</td>
</tr>
<tr>
<td>Regulatory framework</td>
<td>0.782</td>
<td>0.279</td>
</tr>
<tr>
<td>Internal Controls</td>
<td>0.463</td>
<td>0.221</td>
</tr>
<tr>
<td>Mechanisms</td>
<td>0.473</td>
<td>0.217</td>
</tr>
<tr>
<td>Operational costs reduction</td>
<td>0.532</td>
<td>0.213</td>
</tr>
</tbody>
</table>


Based on the study findings, the hypothesis equation model becomes

Performance of Guaranty Trust Bank in Kenya = 3.77 + 0.782 X₁ + 0.463 X₂ + 0.473 X₃ + 0.532 X₄

From the findings in Table 4.14, the study found that holding regulatory framework, internal Controls Mechanisms, Operational costs reduction, and System accessibility, at zero Performance of Guaranty Trust Bank in Kenya will be 3.77. It was established that a unit increase in regulatory framework, while holding other factors (Internal Controls Mechanisms, Operational costs reduction, and System accessibility) constant, will lead to an increase in performance of Guaranty Trust Bank in Kenya by 0.782 (p = 0.007). Further, a unit increase in internal Controls Mechanisms, while holding other factors (regulatory framework, Operational costs reduction, and System accessibility) constant, will lead to an increase in performance of Guaranty Trust Bank in Kenya by 0.463 (p = 0.040). A unit increase in Operational costs reduction, while holding other factors (regulatory framework, internal Controls Mechanisms, and System accessibility) constant, will lead to an increase in performance of Guaranty Trust Bank in Kenya by 0.473 (p = 0.033).

Moreover, a unit increase in System accessibility, while holding other factors (Regulatory framework, Internal Controls Mechanisms, and Operational costs reduction) constant, will lead to an increase in performance of Guaranty Trust Bank in
Kenya by 0.532 (p = 0.015). This infers that internal Controls Mechanisms contributes most to the performance of Guaranty Trust Bank in Kenya followed by regulatory framework at 5% level of significance and 95% level of confidence; internal Controls Mechanisms, regulatory framework, and System accessibility are significant in performance of Guaranty Trust Bank in Kenya.

The P value for each of the independent variables is 0.007, 0.040, 0.033 and 0.015 respectively which is less than .05 level of significance which invariably means that the model is statistically significant. Therefore, based on this study, one may come to the conclusion that, taken together, all the predictor variables have a significant positive effect on the change in the performance of Guaranty Trust Bank in Kenya criteria variable, at 95% level as confidence.

4.8 Limitations of the Study

The major constraints that were encountered in this study were restraints and confidentiality from the respondents to the questionnaire as most banks consider some information as confidential and hence were not willing to reveal most of it. To overcome these limitations, the study used a letter of introduction from the university to assure the respondents that the information provided was used for academic purpose and thereby to be treat with confidentiality.

4.8 Chapter summary

This chapter looks at the research findings and discussion of the study. Specifically it presents findings on the effect of regulatory framework on the Performance of Guaranty Trust Bank in Kenya, relationship between internal controls mechanism and the Performance of Guaranty Trust Bank in Kenya, operational cost reduction affects the Performance of Guaranty Trust Bank in Kenya and the effect of System accessibility on the Performance of Guaranty Trust Bank in Kenya. Further, it presents the findings on the inferential statistics which shows the relationship between management of payment systems and performance.
CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction
This chapter presents the summary of the study findings, conclusions and recommendation of the research. The chapter also contains suggestions of related studies that may be carried out in the future.

5.2 Summary of Findings

5.2.1 Effect of Regulatory framework on the Performance of Guaranty Trust Bank in Kenya
With regards to the objective on the effect of regulatory framework on the Performance of Guaranty Trust Bank in Kenya, the study revealed that there are regulatory framework set on the performance of Guaranty Trust Bank in Kenya and that Regulatory framework influence the Performance of Guaranty Trust Bank in Kenya to a large extent. Further, the study establish that that interest cap affects and credit risk management regulation affects profitability and financial performance of Guaranty Trust Bank in Kenya

5.2.2 Relationship between Internal Controls Mechanism and the Performance
Based on the objective with the motive to determine the relationship with the aim to determine the relationship between internal controls mechanism and the Performance of Guaranty Trust Bank in Kenya, the study established that there are internal controls mechanisms adopted by Guaranty Trust Bank in Kenya and that internal controls mechanism influence the Performance of Guaranty Trust Bank in Kenya to a large extent. Further, the research revealed that communication helps to evaluate how well guidelines and policies of the organization are working and being implemented and that the reporting on organizational structures spells out all the responsibilities of each section/unit in the organization.
5.2.3 Influence of operational cost reduction on Performance of Guaranty Trust Bank in Kenya

With regards to the objective to assess how operational cost reduction affects the Performance of Guaranty Trust Bank in Kenya the study revealed that there are mechanisms for operational cost reduction adopted by Guaranty Trust Bank in Kenya and that operational cost reduction mechanisms influence the performance of Guaranty Trust Bank in Kenya to a large extent. Also the study established that Banks operating costs as percentage of its profits are expected to have a negative correlation with performance and the level of operating expenses is viewed as an indicator of the management’s efficiency and that Costs affect banks profitability and performance

5.2.4 Effect of System accessibility on the Performance of Guaranty Trust Bank

With regards to the objective to establish the effect of System accessibility on the Performance of Guaranty Trust Bank in Kenya, the study established that system accessibility influence the Performance of Guaranty Trust Bank in Kenya to a large extent. Further the study revealed that that Fast accessibility of systems has a positive influence on profitability of Guaranty Trust Bank and that Quick access to services affects profitability of Guaranty Trust Bank

In addition, the study found that holding regulatory framework, internal Controls Mechanisms, Operational costs reduction, and System accessibility, at zero Performance of Guaranty Trust Bank in Kenya will be 3.77. It was established that a unit increase in regulatory framework, while holding other factors (Internal Controls Mechanisms, Operational costs reduction, and System accessibility) constant, will lead to an increase in performance of Guaranty Trust Bank in Kenya by 0.782 (p = 0.007). Further, a unit increase in internal Controls Mechanisms, while holding other factors (regulatory framework, Operational costs reduction, and System accessibility) constant, will lead to an increase in performance of Guaranty Trust Bank in Kenya by 0.463 (p = 0.040). A unit increase in Operational costs reduction, while holding other factors (regulatory framework, internal Controls Mechanisms, and System accessibility) constant, will lead to an increase in performance of Guaranty Trust Bank in Kenya by 0.473 (p = 0.033). Moreover, a unit increase in System accessibility, while holding other factors (Regulatory framework, Internal Controls
Mechanisms, and Operational costs reduction) constant, will lead to an increase in performance of Guaranty Trust Bank in Kenya by 0.532 (p = 0.015).

5.3 Recommendations

5.3.1 Effect of Regulatory framework on the Performance of Guaranty Trust Bank in Kenya
It is recommended that banks comply fully to the stipulated regulations and the Central Bank must ensure that all banks comply. This will have the effect of ensuring a stable banking sector which plays a big role in the economy. If this sector is stable the economy will thrive and financial crisis will be avoided in the country. Implementing strict regulations will also enable the regulator to discover banks that are struggling and provide remedial measures before they collapse and depositors lose their money.

5.3.2 Relationship between Internal Controls Mechanism and the Performance
The research recommends strengthening of internal controls to be able to deal with changing business, technology, legislation, competition, economic conditions and industry practices. By strengthening internal controls, most financial frauds can be prevented. There should be periodic reports about the effectiveness of control activities, risk assessment, control environment, information and communication and monitoring to facilitate evaluation of their effectiveness. All personnel involved in monitoring the internal controls should be regularly trained to enhance their skills and expertise as professionals.

5.3.3 Influence of operational cost reduction on Performance of Guaranty Trust Bank in Kenya
Further, the study recommends that Guaranty Trust Bank in Kenya and more sore commercial banks in Kenya should implement effective operational cost reduction mechanisms in order for them to improve on their profitability as well as the general performance of the banking industry.
5.3.4 Effect of System accessibility on the Performance of Guaranty Trust Bank

Information and communication technology (ICT) professionals should invest their time, effort and resources towards ensuring system accessibility in Guaranty Trust Bank. This can result to more financial deepening and better financial development for the country and hence better profitability for the banks.

5.4 Conclusion

5.2.1 Effect of Regulatory framework on the Performance of Guaranty Trust Bank in Kenya

The study concludes that there are regulatory framework set on the performance of Guaranty Trust Bank in Kenya and that Regulatory framework influence the Performance of Guaranty Trust Bank in Kenya to a large extent. Further, the study concludes that that interest cap affects and credit risk management regulation affects profitability and financial performance of Guaranty Trust Bank in Kenya

5.2.2 Relationship between Internal Controls Mechanism and the Performance

The study concludes that there are internal controls mechanisms adopted by Guaranty Trust Bank in Kenya and that internal controls mechanism influence the Performance of Guaranty Trust Bank in Kenya to a large extent. Further, the research concludes that communication helps to evaluate how well guidelines and policies of the organization are working and being implemented and that the reporting on organizational structures spells out all the responsibilities of each section/unit in the organization.

5.2.3 Influence of operational cost reduction on Performance of Guaranty Trust Bank in Kenya

The study concludes that there are mechanisms for operational cost reduction adopted by Guaranty Trust Bank in Kenya and that operational cost reduction mechanisms influence the performance of Guaranty Trust Bank in Kenya to a large extent. Also the study concludes that Banks operating costs as percentage of its profits are expected to have a negative correlation with performance and the level of operating expenses is viewed as an indicator of the management’s efficiency and that Costs affect banks profitability and performance
5.2.4 Effect of System accessibility on the Performance of Guaranty Trust Bank

The study concludes that system accessibility influence the Performance of Guaranty Trust Bank in Kenya to a large extent. Further the study concludes that that Fast accessibility of systems has a positive influence on profitability of Guaranty Trust Bank and that Quick access to services affects profitability of Guaranty Trust Bank.

From the determination coefficients, the study concludes that there is a strong relationship between dependent and independent variables given an $R^2$ value of 0.887 and adjusted to 0. 881. This shows that the independent variables (regulatory framework, internal Controls Mechanisms, Operational costs reduction, and System accessibility) account for 88.7% of the variations in performance of Guaranty Trust Bank in Kenya.

The study concludes that internal Controls Mechanisms contributes most to the performance of Guaranty Trust Bank in Kenya followed by regulatory framework at 5% level of significance and 95% level of confidence; internal Controls Mechanisms, regulatory framework, and System accessibility are significant in performance of Guaranty Trust Bank in Kenya.

5.5 Suggestions for Further Research

The current study was confined to commercial banks in Kenya a case of Guaranty Trust Bank; further study should be undertaken on other financial institution and government agencies in the service sector. The role of management of payment systems on performance of non-governmental organization should also be studied.
References


Mwachiro, D.B, (2013). Effect of internal controls on revenue collection in KRA: *Unpublished MBA Project*, University of Nairobi


APPENDICES

APPENDIX I: QUESTIONNAIRE

Section A: Background Information

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

2. What age bracket in complete years do you belong?
   Below 30 Years [ ]
   31 – 40 Years [ ]
   41 – 50 Years [ ]
   Above 50 Years [ ]

3. Number of complete years in current position
   Below 1 year { }
   1-5 years { }
   6-11 years { }
   12-17 Years { }
   18-23 years { }
   24 years and above { }

4. Level of Education
   Secondary { }
   College { }
   University { }
   Post graduate { }
Section B: effect of regulatory framework on the Performance of Guaranty Trust Bank in Kenya

5. Are there regulatory framework set on the Performance of Guaranty Trust Bank in Kenya?

Yes { }

No { } 

If yes please explain various regulatory framework

………………………………………………………………………………………………………………
…

6. To what extent do you feel that the Regulatory framework influence the Performance of Guaranty Trust Bank in Kenya?

Small extent { } 

Moderate extent { } 

Large extent { } 

7. The following are statements on effect of Regulatory framework on the Performance of Guaranty Trust Bank in Kenya your feeling in each by SA- strongly agree (5), Agree(4), N-neutral(3), D-disagree(2), SD-strongly disagree(1).

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<th>Statement</th>
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<tr>
<td>capital adequacy requirement affects profitability of Guaranty Trust Bank in Kenya</td>
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<td>liquidity regulation ratio affects profitability of Guaranty Trust Bank in Kenya</td>
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<td>interest cap affects profitability of Guaranty Trust Bank in</td>
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Kenya


credit risk management regulation affects financial performance of listed Guaranty Trust Bank in Kenya

8. In your own opinion, kindly indicate how does Regulatory framework affect Performance of Guaranty Trust Bank in Kenya?

Section C: Relationship between internal controls mechanism and the Performance of Guaranty Trust Bank in Kenya

9. Are there internal controls mechanism adopted by Guaranty Trust Bank in Kenya?
   Yes { }
   No { }
   If yes please explain various internal controls mechanism

10. To what extent do you feel that the internal controls mechanism influence the Performance of Guaranty Trust Bank in Kenya?
    Small extent { }
    Moderate extent { }
    Large extent { }

11. The following are statements on effect of internal controls mechanism on the performance of Guaranty Trust Bank in Kenya your feeling in each by SA-
strongly agree (5), Agree(4), N-neutral(3), D-disagree(2), SD-strongly disagree(1).

<table>
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<th>Statement</th>
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<tr>
<td>Policies and procedures exist to ensure critical decisions are made with appropriate approval.</td>
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<td>The reporting on organizational structures spells out all the responsibilities of each section/unit in the organization.</td>
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<td>Management receives timely, relevant and reliable reports for decision making</td>
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<td>Communication helps to evaluate how well guidelines and policies of the organization are working and being implemented.</td>
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<tr>
<td>Policies and procedures exist to ensure critical decisions are made with appropriate approval.</td>
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12. In your own opinion, kindly indicate how does internal controls mechanism affect Performance of Guaranty Trust Bank in Kenya?

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Section D: effect of operational cost reduction on the Performance of Guaranty Trust Bank

13. Are there mechanisms for operational cost reduction adopted by Guaranty Trust Bank in Kenya?

   Yes { }

   No { }

   If yes please explain various operational cost reduction mechanisms
14. To what extent do you feel that the operational cost reduction mechanisms influence the Performance of Guaranty Trust Bank in Kenya?

   Small extent { }
   Moderate extent { }
   Large extent { }

15. The following are statements on effect of operational cost reduction mechanisms on the Performance of Guaranty Trust Bank in Kenya your feeling in each by SA-strongly agree (5), Agree(4), N-neutral(3), D-disagree(2), SD-strongly disagree(1).

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<th>Statement</th>
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<tr>
<td>Banks costs of operation determine their level of performance</td>
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<td>Costs influences the expenses which cut the on the profitability of a firm</td>
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<td>Costs affect banks profitability and performance</td>
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<td>Banks operating costs as percentage of its profits are expected to have a negative correlation with performance</td>
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<td>The level of operating expenses is viewed as an indicator of the management’s efficiency</td>
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<td>operating costs have a negative effect on profit measures despite their positive effect on net interest margins</td>
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16. In your own opinion, kindly indicate how does operational cost reduction mechanisms affect Performance of Guaranty Trust Bank in Kenya?

Section B: effect of System accessibility on the Performance of Guaranty Trust Bank

17. Are there Systems at the Guaranty Trust Bank in Kenya accessible?
   
   Yes { }  
   No { }

18. To what extent do you feel that the system accessibility influence the Performance of Guaranty Trust Bank in Kenya?
   
   Small extent { }  
   Moderate extent { }  
   Large extent { }

19. The following are statements on effect of system accessibility on the performance of Guaranty Trust Bank in Kenya in Kenya your feeling in each by SA-strongly agree (5), Agree(4), N-neutral(3), D-disagree(2), SD-strongly disagree(1).

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<td>Quick access to services affects profitability of Guaranty Trust Bank</td>
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<td>Fast accessibility of systems have a positive influence on profitability of Guaranty Trust Bank</td>
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<td>Fast accessibility of systems have a negative influence on profitability of Guaranty Trust Bank in Kenya</td>
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<td>Management efficiency affects profitability of Guaranty Trust Bank</td>
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</table>
20. In your own opinion, kindly indicate how does system accessibility affect Performance of Guaranty Trust Bank in Kenya?

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