THE EFFECT OF INTERNAL CONTROLS ON THE FINANCIAL PERFORMANCE OF FIRMS LISTED AT THE NAIROBI SECURITIES EXCHANGE

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DECLARATION

This research project is my original work and has not been submitted for a degree in any other University or for any other award.

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Signature..   **Date...**

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

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DEDICATION

I humbly dedicate this project to my family, friends and colleges for their endless support.

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LIST OF ABBREVIATIONS

APB-   Auditing Practices Board

ATS-   Automated Trading system

CMA-   Capital Market Authority

CMC-   Cooper Motor Corporation

COSO-   Committee of Sponsoring Organizations (COSO), 1992;

EFQM-   European Foundation for Quality Management

ICS-   Internal Control Systems

IIA-   Institute of internal auditors

INTOSAI-   International Organization of Supreme Audit Institutions

KPMG-   Klynveld Peat Marwick Goerdeler

NSE-   Nairobi Securities Exchange

ROA-   Return on Assets

ROE-   Return on Equity

ROI-   Return on Investment

WEF-   World Economic Forum

ABSTRACT

Business entities generally belief that properly instituted systems of Internal Control improve the reporting process and give rise to reliable reports which enhances the accountability function of management of an organization. In these, listed firms have exhibited a lot pressure to enhance the effectiveness of internal controls. The purpose of this study was to establish the effect of internal control on the financial performance of firms listed on the Nairobi security exchange. This study adopted a descriptive research design. This study used secondary data obtained from Nairobi Securities Exchange statements the study adopted a regression analysis. Regression analysis was used to come up with the model expressing the relationship between the independent variables and the dependent variable (Financial Performance of Firms listed on the Nairobi Security Exchange). The findings revealed that control environment, risk assessment, control activities, information and communication, monitoring, leverage, liquidity and firm size were found to be satisfactory variables in explaining performance of firms listed under Nairobi Securities Exchange. This is supported by coefficient of determination also known as the R square of 59.9%. Results showed that control environment and firm performance are positively and significantly related, risk assessment and firm performance are positively and significantly related , control activities and firm performance are positively and significantly related , information and communication , monitoring, leverage , liquidity and firm size were also positively and significantly related to firm performance. This implies that a unit increase in any of the above variable will lead to a unit increase in firm performance. The study concluded that control environment, risk assessment, control activities, information and communication, monitoring, leverage, liquidity and firm size have positive relationship with firm performance. Based on the findings and conclusions of the study, the following recommendations were made; Internal control system was found to have a statistically positive effect on performance of firms listed under NSE hence there is need for the firms to improve on their internal control system by adopting a modern integrated financial reporting system. The system should be updated regularly so that it will be able to detect ever changing fraudsters' techniques based on the ever changing technological innovations. The study also found that there are some other determinants that affect financial performance of firms. Financial firms should also consider favorable level of liquidity, firm size and leverage since they were found to influence firm performance.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Most business entities believe that institution and enforcement of proper internal control systems will always lead to improved financial performance. It is also a general belief that properly instituted systems of internal control improve the reporting process and also give rise to reliable reports which enhances the accountability function of management of an entity.

Increased business failures and frequent challenges of frauds have prompted organizations to put more emphasis on their internal control systems, which are specific to their particular operating environment to mitigate these challenges. Management of these firms are under increased pressure to enhance the effectiveness of internal control and to effectively communicate this to the board of directors and shareholders (Kuhn and Sutton, 2010). A sound internal control will ensure that transactions are valid, properly authorized, recorded, properly valued, properly classified, reconciled to subsidiary records and not carried through by a single employee (Adeyemo, 2012).

Data available from a World Bank report of 2014 show that declining financial performance of quoted companies adversely affects the economic growth of the Kenyan economy. Most quoted companies have functional internal audit departments charged with responsibility of providing management with re-assurance that internal control systems are adequate and quality of services is in place. There is however, continued poor financial performance, where budgets are not followed, rules and regulations on the use of finances are not adhered to and there are massive unaccounted funds. This has put

companies at risk of financial inadequacy, employee dissatisfaction and poor financial performance (Kaplan, 2008).

1.2 Internal Controls

Internal Control is the whole system of controls, financial and otherwise, established by the management in order to carry on the business of the enterprise in an orderly and efficient manner, ensure adherence to management policies, safeguard the assets and secure as far possible the completeness and accuracy of the records (EtukIfiok Charleset, 2011). Internal controls are measured in terms of internal auditing detection and prevention of financial fraud to the firm (Jensen, 2003).

Internal control is a process, effected by an organizations' board of directors, management and other line managers/personnel, designed to give a reasonable assurance regarding the achievement of a firm's objectives in the effectiveness and efficiency of operations, reliability of financial and management reporting, compliance with applicable laws and regulations and protect the organization's reputation (Kaplan, 2008; Cunningham, 2004; INTOSAI, 2004; Committee of Sponsoring Organizations (COSO), 1992; Auditing Practices Board (APB), 1999).The internal control assist the company to achieve its goals using a systematic approach of assessing the effectiveness of handling dangers (IIA, 1999). Bounton and KellWalter (1996) claimed that the objective purpose of Internal Control is, on the one hand, the allowance of specific and high level of services offered towards the management, and on the other hand, the allowance of assistance towards the members of the organization for the most effective practicing of their duties.

Moreover, internal control is not one event or circumstance, but a series of actions that permeate an entity's activities. These actionable measures occur throughout an entity's operations on an ongoing basis. They are pervasive and inherent in the way management runs the organisation. Internal control is therefore different from the perspective of some observers who think and view it as something added on to an entity's activities, or as a necessary burden. The internal control system is intertwined cutting across the organization with an entity's activities and most effective when it is built into the entity's infrastructure and forms the integral part of the organization (Manasseh, 2007).

Nyakundi, Nyamita and Tinega (2014) internal control comprises five components; the control environment, the entity's risk assessment process, the information and communication systems, control activities and the monitoring of controls. For Amudo & Inanga (2009), internal control systems operate at different levels of effectiveness. Determining whether a particular internal control system is effective is a judgment resulting from an assessment of the five components.

1.3 Financial Performance

Mawanda (2008), performance refers to the ability of the firm to operate efficiently, profitability, survive and react to the environmental opportunities and threats. They assert that, performance is measured by how efficient the enterprise is in use of resources in achieving its objectives. It is the measure of attainment achieved by an individual, team, organization or process. Hitt (1996) believes that many firms' low performance is the result of poorly performing assets or businesses entities.

According to Stoner (2003), performance refers to the ability to operate efficiently, profitability, survive grow and react to the environmental opportunities and threats. In agreement with this, Sollenberg & Anderson (1995) asserts that, performance is measured

by how efficient the enterprise is in use of resources in achieving its objectives. It is the measure of attainment achieved by an individual, team, organization or process (EFQM, 1999).

In the view of the shareholder, financial performance is a measure of how better off the shareholder is at the end of a period, than he was at the beginning and this can be determined using ratios derived from financial statements; mainly the balance sheet and income statement, or using data on stock market prices (Berger & Patti, 2002). These ratios give an indication of whether the firm is achieving the owners' objectives of making them wealthier, and can be used to compare a firm's ratios with other firms or to find trends of performance over time. Charreaux (1997) and Severin (2002) states that, an adequate performance measure ought to give an account of all the consequences of investments, on the wealth of shareholders.

Financial performance is therefore a measure of company's policies and operations in monetary terms. It is a general measure of a firm's overall financial health over a given period of time, and can be used to compare similar firms across the same industry or to compare industries or sectors in aggregation. There are many different ways to Measure Company's financial performance. This may be reflected in the firm's return on investment (ROI), return on assets (ROA), value added, among others and is a subjective measure of how a firm can use assets from its primary mode of business and generate revenues (Mishkin, 2007). Financial performance of firms is thus driven with what managers do, how coordinate control activities, type of strategy to implement control system and environmental drivers of performance that include innovation, regulation and technology (Harker & Zenios, 1998).

1.4 Effect of Internal Controls on Financial Performance

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 (Jensen, 2003). 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 internal controls provide an independent appraisal of the quality of managerial performance in carrying out assigned responsibilities for better revenue generation (Beeler, 1999).

Fadzil (2005) said that an effective internal control system unequivocally correlates with organizational success in meeting its revenue target level. Effective internal control for revenue generation involves; regular 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 (Ittner, 2003).

Kenyon and Tilton (2006) 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 (Doyle, 2005).

Internal controls generally describe how management assures that an organization does meet its financial and other objectives. Internal control systems not only contribute to managerial effectiveness and financial performance but are also important duties of corporate boards of directors (Verschoor, 1999). Internal controls will therefore help in internal auditing of the firm, detecting and preventing fraud that will translate to improved financial performance of the firm. However, internal control is not only measured in terms of prevention or detection of frauds. There are instances where the model adopted is not working or can fail.

1.5 Nairobi Securities Exchange

Kenya has only one Securities Exchange, the Nairobi Securities Exchange (NSE). The NSE has played a role in increasing investor confidence by modernizing its infrastructure. In 2006 the NSE installed the automated trading system (ATS), which has resulted in high trading volumes with the daily market turnovers exceeding Ksh110 billion in some days. The implementation of the ATS provided for longer trading hours, increased trading efficiency and price discovery Economic Survey of 2007.

The Nairobi Securities Exchange facilitates good management of companies by asking them to give periodic reports of their performance. Providing a daily market reports and price list to ensure that investors know the worth of their assets at all times. Corporate Governance guidelines of 2002 issued by the NSE actually recognizes the important role played by the Internal Audit function and actually gives the various best practices companies can adopt in regards to setting up an audit function. In Kenya, the internal audit function is becoming increasingly important and it's very crucial in the public sector. All listed companies are required to have an internal audit department.

Performance at the NSE is attributed to effective and efficient internal controls that provide reasonable assurance about the achievement of the entity's objective with regard to reliability of financial reporting, effectiveness and efficiency of operations and compliance with applicable laws and regulations, risk assessment, effective monitoring and application of information technology in internal control systems.

1.6 Research Problem

The series of business failures and corporate scandals have been identified by KPMG to be as a result of weak internal control system Zhang, Zhou& Zhou, (2007). The failure of Enron in 2001 caused a precipitous decline in investor confidence in the capital markets. Data available from a World Bank report of 2014 show that declining financial performance of quoted companies adversely affects the economic growth of the Kenyan economy. Most quoted companies have functional internal audit departments charged with responsibility of providing management with re-assurance that internal control systems are adequate and quality of services is in place. There is however, continued poor financial performance, where budgets are not followed, rules and regulations on the use of finances are not adhered to and there is massive unaccounted for funds. This has put companies at risk of financial inadequacy and poor financial performance (Kaplan, 2008).

In Kenya, basing on statistics available from CMA 2014 have shown most firms especially quoted companies have registered declining financial performance in the recent years. Examples include Kenya Airways which reported a loss Ksh 10 billion, Mumias Sugar company Ksh 3.4 billion loss, Uchumi super markets Ksh 226million loss, Eveready East Africa limited Ksh 248million loss, CMC holding suspended from NSE and so on. This has prompted the companies listed under Nairobi Securities Exchange to consider the use of internal control systems to detect frauds.

Previous studies have focused on the contribution of internal control systems on financial performance of small and medium scale business enterprises (Nyakundi *et al.* 2014). Mawanda (2008) researched on effects of internal control systems on financial performance in an institution of higher learning. Khamis (2013) researched on contribution of internal control systems to financial performance of financial institution. Majority of the studies involving internal controls have focused on investigating the characteristics of firms that disclose material weaknesses in internal control. Al-Matari, (2012) noted that there was lack of research in developed as well developing nations regarding the direct association of internal control systems and firm performance.

In the Kenyan context, researches done relating to internal control systems and financial performance do not show directly the effect of internal control on financial performance of companies. The study addressed the research question; what is the effect of internal controls on the financial performance of firms listed on the NSE?

1.7 Research Objective

The general objective of this study is to have an over view and understand the impacts of Internal controls vis a vis the Financial Performance growth.

To establish the effect of internal control on the financial performance of firms listed on the Nairobi Security Exchange.

1.8 Value of the Study

The study would finally help companies to ensure quality of internal and external reporting and maintenance of proper records and processes that generate a flow of timely relevant and reliable information from within and outside the organization. The recommendations of the study will be of interest to the management of firms listed by

NSE because they point out the areas ignored in the internal control systems as well as the ways of improving the quality of the internal control system.

This study is of interest to academicians and future researchers who will be undertaking other researches related to this. This is because it would expand their knowledge on internal control and provides the necessary information to be incorporated into government agencies and parastatals.

2.1 Introduction

This chapter presents a review of related literature on the subject under study presented by various researchers, scholars, analyst and authors with the aim of identifying literature gaps. Literature will guide the relevance of the study findings. This chapter will therefore focus on the theoretical literature, the empirical review; determinants of financial performance and the summary of the literature review.

2.2 Theoretical Review

According to Zima (2007), a theory is a set of assumptions, propositions, or accepted facts that attempts to provide a plausible or rational explanation of cause-and-effect relationships among a group of observed phenomenon.

2.3 Agency Theory

This theory is concerned with resolving problems that can exist in agency relationships; between principals who are the shareholders and agents of the principals. Jensen and Meckling (1976) on agency theory, argue that a firm consists of a binding contracts between the owners of economic resources called the principals and managers who are mainly the agents charged with using and controlling those resources.

Information asymmetry is the most common problem between the principal and the agent which adversely affects the principals' ability to monitor whether or not their interests are being properly served by agents. Because of this, theory describes firms as necessary structures to maintain contracts, and through firms, it is possible to exercise control which

minimizes opportunistic behavior of agents (Jensen & Meckling, 1976). The theory therefore suggests that to balance the interests of the agent and the principal, a comprehensive contract is written to address the interest of both the agent and the principal. The agent-principal relationship is strengthened more by the principal employing an expert and systems (auditors and control systems) to monitor the agent (Jussi & Petri, 2004).

This theory is applicable to this study simply because internal control is one of many mechanisms used in business to address the agency problem by reducing agency costs that affects the overall performance of the relationship as well as the benefits of the principal (Payne, 2003).

2.4 Reliability Theory

According to Gavrilov and Gavrilova (2001), reliability theory simply describes the probability of a system completing its expected function during an interval of time. According to the reliability theory, an internal control system comprises of components that are interrelated and each for component has a defined measure of success. The state of a component is determined by whether the component is successful or not successful. Basing on this the reliability of a component is defined as the probability of the component being found in the "success" state. Therefore, the reliability of the entire internal control system is a duo combination of two possible values "success" and "failure" that relates the internal control system to component reliabilities.

The application of the reliability theory to the evaluation and design of internal control systems have appeared in the professional literature but no applications have been reported that draw upon the substantial power of the theory of reliability (Kinney, 2000). The two potential users of the reliability theory are the external auditor and organization

management. Kinney (2000) states that; during the external audit, evidence is gathered to support a professional opinion. Internal control systems have a primary purpose of assessment and control of risks. Weak internal control systems result in more substantive work and hence greater cost and poor financial performance.

According to Gavrilov and Gavrilova (2001), the determination of the "weakness" of any internal control system is primarily judgmental. Upon the formulation of the process and system reliability estimates, comparison with data from the organization's past performances or other firms may provide a more solid basis for judgment of the impact of an internal control system on the firm's income risk and hence provide for more rational allocation of the auditor's time and effort. Messier and Austen (2000) state that one of the primary advantages of the reliability theory is its close relationship to the auditor's needs regarding understanding the internal control system and control risk assessment.

Further, Stratton (2007), recent developments have increased the value to management of objective methodologies for the evaluation of internal control systems. Firm managers are therefore required to assure the accuracy of these systems. Stratton (2007) also adds that the process of evaluation of the internal control system by both management and external auditors is judgmental in nature. However, the few attempts at modeling internal control systems have not been implemented by firms due to the lack of realism, difficulty of modeling behavioral systems, lack of cost effectiveness, and lack of understanding by practitioners.

2.5 Contingency Theory

According to Lawrence and Lorsch (1967), the Contingency theory explanations about the organizational behavior which describes how contingent factors such as technology, culture and the external environment affect the design and function of organizations. The

assumption underlying contingency theory is that no single type of organizational structure is equally applicable to all organizations. Rather, organizational effectiveness is dependent on a fit or match between the type of technology, environmental volatility, the size of the organization, the features of the organizational structure and its information system. Contingency theories were developed from the sociological functionalist theories of organization structure such as the structural approaches to organizational studies by (Woods, 2009; Chenhall, 2003; Reid & Smith, 2000).

Contingency theory therefore describes the relationships between the context and structure of internal control effectiveness and organizational performance, especially reliability of financial reporting. Empirical study suggests that internal auditors who are specialized and higher in internal audit ability will achieve internal control effectiveness analysis and that the firm will benefit from the organizational effectiveness via internal control mechanism efficiency (Cadez & Guilding, 2008). Cadez and Guilding (2008) identified external environment, technology, structure and size, strategy and national culture as some of the factors, which impact management control systems

Fisher (1998) argued that Contingency theory states that the design and use of control systems is contingent upon the context of the organizational setting in which these controls operate. Basing on this idea of contingency theory it is evident that the selection and use of a management control system is contingent on a variety of internal and external factors. It is therefore clear that, factors such as external environment, technology, structure and size, strategy and national culture impact Management Control Systems. The theory suggests that the demands imposed by technical tasks in the organization encourage the development of strategies to coordinate and control internal activities.

2.6 Determinants of Financial Performance

A firm's financial performance is critical to its health and survival. A firm's high performance reflects its effectiveness and efficiency in the management of its resources for operational, investment and financing activities (Naser & Mokhtar, 2004). Liargovas and Skandalis (2008) say despite large and growing body of theoretical and empirical literature, measurement and determinants of firms' financial performance are inconclusive. Past studies have proxied the financial performance of firms by ROA(Return on Assets), ROE,(Return on Equity)ROI(Return on Investment) and Tobin's Q (Tobin, 1956).Past studies have identified both firm specific (internal) factors (including corporate governance, leverage, and liquidity and firm size) and industry specific (external) factors (including growth, concentration, capital intensity, advertising intensity, etc.) as key determinants of the financial performance based on capital structure relevance; working capital management; and organizational behavior theories. Therefore the key determinants of Financial Performance are:

2.6.1 Leverage

Leverage allows a financial institution to increase the potential gains or losses on a position or investment beyond what would be possible through a direct investment of its own funds (World Bank, 2009).

2.6.2 Liquidity

Hitt (1996) defined current ratio (current assets/current liabilities) as a standard measure of liquidity in organizations. Baysinger (1989) also emphasized the importance of current ratio as a measure of an organization's liquidity. Other measures of Liquidity according to ACCA are; Acid test ratio (i.e. Current Assets less Inventory/Current Liabilities).

2.6.3 Firm size

Hardwick (1997) argues that there is a positive relationship between performance and size due to operating cost efficiencies through increasing output and economizing on unit of cost. Large corporate size also enables insurers to effectively diversify their assumed risks and respond more quickly to changes in market conditions. Industrial organization economists such as Bain (1968) and Scherer (1980) have argued that large firms possess monopoly power which allows them to set prices above the economic costs involved in the production of the products resulting in additional profit for the larger firms.

2.7 Empirical Review

Jones (2008) compared Internal control, accountability and corporate governance in Medieval and modern Britain. He used a modern referential framework (control environment, risk assessment, information and communication, monitoring and control activities) as a lens to investigate medieval internal controls used in the 12th century royal exchequer and other medieval institutions. He demonstrated that most of the internal controls found today were present in medieval England. Stewardship and personal accountability were found to be the core elements of medieval internal control. The recent recognition of the need for the enhanced personal accountability of individuals is reminiscent of medieval thinking.

Mawanda (2008) conducted a research on effects of internal control systems on financial performance in institution of higher learning in Uganda. In his study he investigated and sought to establish the relationship between internal control systems and financial performance in an Institution of higher learning in Uganda. Internal controls were looked at from the perspective of Control Environment, Internal Audit and Control Activities whereas Financial performance focused on Liquidity, Accountability and Reporting as the

measures of Financial performance. The Researcher set out to establish the causes of persistent poor financial performance from the perspective of internal controls. The study established a significant relationship between internal control system and financial performance.

Kakucha (2009) evaluated the level of effectiveness of internal controls of enterprises operating in Nairobi. The study was quantitative and was conducted between September 2007 and June 2009 using a sample of 30 small businesses as listed in the National Social Security Fund (NSSF) Register of Kenya. Primary data was collected from the managers of the small business using interviews and examination of documents pertaining to internal controls. The study established that there are deficiencies in the systems of internal controls, with the degree of deficiencies varying from one enterprise to another.

Amudo and Inanga (2009) also carried out a study in Uganda to evaluate the internal control systems that the regional member countries of the African Development Bank Group institute for the management of the Public Sector Projects that the Bank finances.

There are 14 projects of the Bank's Public Sector Portfolio in Uganda. The data received and analyzed is for 11 projects. Three projects were omitted because they were not fully operational to install effective internal control systems. The study identified the following 6 essential components of an effective internal control system: control environment, risk assessment, control activities, information and communications, monitoring and information technology. The outcome of the evaluation process was that some control components of effective internal control systems were lacking in those projects. These rendered the control structures ineffective.

Wainaina (2011) in a study on internal control function of the Kenya Polytechnic University College shows that as a substitute of its presence on the scene of operations, management must rely on internal control techniques to implement its decisions and to regulate the activities for which she would ultimately be responsible for. It is in this light that use of effective Internal Control Systems (ICS's) is deemed crucial in the management of business resources. As a result, the management of any organization designs internal control procedures to allocate, control and ensure efficient utilization of resources, in order to achieve the overall corporate goals. It was found that Internal Control Systems (ICS's) play an important role in preventing and detecting fraud and protecting the organization's resources, both physical and intangible. This is achieved through proper authorization controls and documentation.

Ewa and Udoayang (2012) carried out a study to establish the impact of internal control design on banks' ability to investigate staff fraud and staff life style and fraud detection in Nigeria. Data were collected from 13 Nigerian banks using a four point likert Scale questionnaire and analyzed using percentages and ratios. The study found that Internal control design influences staff attitude towards fraud such that a strong internal control mechanism is deterrence to staff fraud while a weak one exposes the system to fraud and creates opportunity for staff to commit fraud.

Almajali (2012) study investigated factors that affect financial performance of Jordanian Insurance Companies. The study population consisted of all insurance companies listed at Amman Stock Exchange during the period (2002-2007) which count (25) insurance company. The data was analyzed by using basic statistical techniques such as T-test and multiple regressions. The results showed that the following variables (leverage, liquidity, size, management competence index) have a positive statistical effect on the financial performance of Jordanian Insurance Companies.

Omondi and Muturi (2013) study was focused on 29 listed firms which have been operating at the Nairobi securities exchange during the period 2006-2012. The study suggests that leverage (ratio of debt-equity) has a significant negative effect on financial performance (ROA). The study also provides evidence to infer that liquidity (current assets over current liabilities) play an important role in improving the firm's financial performance. Based on research findings, the study concluded that company size has a significant positive effect on financial performance

Burca and Batrinca (2014) did study on the Romanian insurance market during the interval 2008-2012 , in order to determine the factors that influence the financial performance (return on total assets ratio),they tested 13 explanatory variables: insurance financial leverage, company size, number of years since the company operates in the Romanian market, growth of gross written premiums, equity, total market share, diversification, underwriting risk, investment ratio, reinsurance dependence, retained risk ratio, solvency margin and growth of GDP per capita. The study found that there is a positive relationship between size and financial performance, since larger firms have more resources, a better risk diversification, complex information systems and a better expenses management.
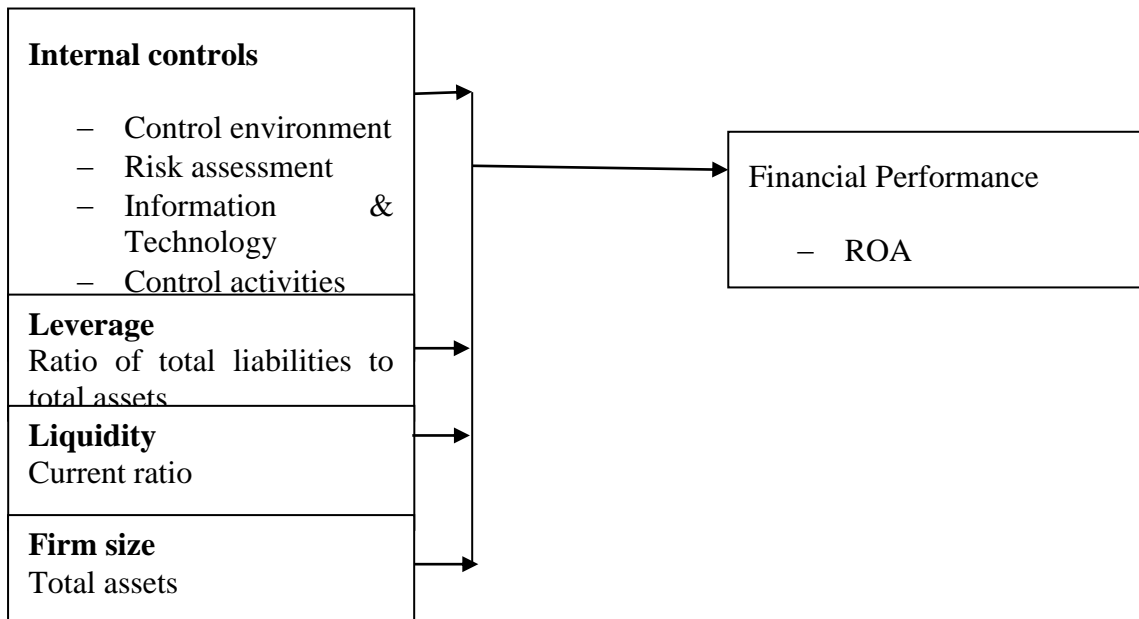
2.8 Conceptual Framework

A variable is a measurable characteristic that assumes different values among subjects. The dependent variable responds to the independent variable. The independent variables influence the antecedent variables which in turn influence the dependent variable (Anderson, Sweeney, & Williams, 2006).

From the literature reviews done it has been found out that realization of positive financial performance and generation of good revenue, depends on whether firms have sound Internal Control systems. Non-compliance to the internal controls is one of the major hindrances to the attainment of positive financial performance in listed firms at the Nairobi Securities Exchange. Weak, non-compliance, non-existent or absent public financial management functions (Internal Control Systems) are likely to negate any advantages that might be inherent in achieving positive Financial Performance of any listed firm. Therefore, there is need to establish the relationship between the internal control systems and financial performance of listed firms at the Nairobi Securities Exchange in Kenya. It can be concluded from the literature that Control Environment, Control Activities, Risk Assessment, Information and Technology and Monitoring are significant predictors of financial performance.

The study identified the following variables and their relationships which are given in the conceptual framework in the Figure below.

Figure 2.1: Conceptual Model

Independent Variables

Internal controls
– Control environment – Risk assessment – Information & Technology – Control activities
Leverage Ratio of total liabilities to total assets
Liquidity Current ratio
Firm size Total assets

Financial Performance
– ROA

(Source: Researcher, 2016)

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter described the research methodology of the study. Research methodology is the procedural plan that is adopted by the researcher to validly, objectively and accurately answer the research questions. It is a detailed explanation of the procedures and techniques that were used while collecting processing and analyzing data. This section of the study therefore describes the research design, target population, data collection instrument, procedures and analysis management that the study used.

3.2 Research Design

Research design refers to the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in the procedure (Babbie, 2002). The research design that I employed in this study is descriptive design. A descriptive design is a process of collecting data in order to answer questions concerning the current status of the subjects in the study. It involves gathering data that describes events and then organizes, tabulates, depicts, and describes the data. Descriptive studies portray the variables by answering who, what, and how questions (Babbie, 2002; Cooper & Schindler, 2004). Descriptive design was used because it's appropriate in collecting information about people's attitude, opinions and habits. It can be used to obtain information concerning the current status of the phenomena and to describe "what exists" with respect to variables or conditions in a situation (De Vaus, 2011).

3.3 Population

The population of study is the census of all items or a subject that possess the characteristics or that have the knowledge of the phenomenon that is being studied (Asiaka, 1991). It also means the aggregate people from which the sample is to be drawn. The population for this study constituted all listed companies in the Nairobi Securities Exchange as at 31th December 2015, where there were 65 companies listed on the Nairobi Securities Exchange (Appendix1).

3.4 Data Collection

Burns and Grove (2003) define data collection as the precise, systematic gathering of information relevant to the research sub-problems, using methods such as interviews, participant observations, focus group discussion, narratives and case histories. This study used secondary data on financial records of listed companies obtained from Nairobi Securities Exchange statements.

3.5 Data Analysis

According to Zikmund (2010), data analysis refers to the application of reasoning to understand the data that has been gathered with the aim of determining consistent patterns and summarizing the relevant details revealed in the investigation.

Data analysis was done using Statistical Package for Social Sciences (SPSS Version 20.0) software. The study adopted a regression analysis. Regression analysis was used to come up with the model expressing the relationship between the independent variables and the dependent variable (Financial Performance of Firms listed on the Nairobi Security Exchange).

3.6 Analytical Model

The multiple linear regression model used in the study was of the form;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \epsilon$$

Where,

Y – Financial Performance as measured by ROA

β_0 – Constant

X_1 – Control Environment as measured by the number of audit committee members

X_2 – Risk Assessment as measured by auditor's total expense to assets

X_3 – Control Activities as measured by number of stock and surprise cash checks in a year

X_4 – Information and Communication as measured by investment in computer assisted audit techniques (natural log)

X_5 – Monitoring as measured by size of the audit department

X_6 – Leverage as measured by total liabilities divided by total assets

X_7 – Liquidity as measured by current ratio

X_8 – Firm size as measured by natural log of total assets

ϵ = Error term

3.7 Tests of Significance

The study conducted an F- test to establish the significance of the independent variables against the dependent variable. The significance of variables was interpreted at 95% confidence level. Interpretation was as follows; a variable with p-value of 0.05 and below is significant while that variable with p-value above 0.05 is insignificant.

CHAPTER FOUR

RESEARCH RESULTS AND DISCUSSION

4.1 Introduction

This chapter dealt with the analysis of data. The objective of the study was to establish the effect of internal control on the financial performance of firms listed on the Nairobi security exchange. The data analysis is in harmony with the specific objectives where patterns were investigated through descriptive analysis, trend and inferential analysis.

4.2 Descriptive Statistics

This section provides results on measures of central tendency of independent variables in Table 4.1 below. The results show that the overall mean of control environment measured in terms of the number of audit committee was 5.415239 which indicated the average control environment of firms listed under NSE. The minimum and the maximum control environment for the firms listed under NSE was 0.4058 and 9.000 respectively. Its standard deviation was 2.54113 which indicated that control environment varied across the firms.

The overall mean of risk assessment measured in terms of auditor's total expense to assets was 6.112884. The minimum and the maximum risk assessment for the firms listed was 0.4503 and 10 respectively. Its standard deviation was 2.937707 which indicated that risk assessment varied across the firms.

The overall mean of control activities measured in terms of the number of surprise checks per year was 15.80977. The minimum and the maximum control activities for the firms listed was 0.4449 and 30 respectively. Its standard deviation was 8.66165 which indicated that control activities varied across the firms listed under NSE.

The overall mean of information and communication measured in terms of the log of investment in computer assisted audit techniques was 15.09408. The minimum and the maximum information and communication for the firms listed under NSE was 0.4096 and 16.7 respectively. Its standard deviation was 1.991508 which indicated that information and communication varied across the firms.

The overall mean of monitoring measured in terms of the number of audit department was 8.158014. The minimum and the maximum monitoring for the firms listed was 0.4289 and 32 respectively. Its standard deviation was 4.702983 which indicated that monitoring varied across the firms listed under NSE. The overall mean of leverage measured in terms of the ratio of total liabilities to total assets was 66.87059. The minimum and the maximum leverage for the firms listed under NSE was 0.4589and 79 respectively. Its standard deviation was 11.72283 which indicated that ratio of leverage varied across the firms.

Table 4.1: Descriptive Statistics

Variable	Observations	Minimum	Maximum	Mean	Std. Deviation
Control environment(no of audit committees)	65	0.4058	9	5.415239	2.54113
Risk Assessment (auditor's total expense to assets)	65	0.4503	10	6.112884	2.937707
control activities (no of surprise checks per year)	65	0.4449	30	15.80977	8.66165
Information and communication (investment in computer assisted audit techniques (natural log)	65	0.4096	16.7	15.09408	1.991508
monitoring (size of audit department)	65	0.4289	32	8.158014	4.702983
leverage TL/TA	65	0.4589	79	66.87059	11.72283
liquidity (current ratio)	65	0.4273	278	166.1277	80.80263
firm size(log of total assets)	65	0.4085	34.1	22.6168	3.794153
ROE	65	2	34	17.66	9.291

Source: Research Findings

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The overall mean of liquidity measured in terms of the current ratio was 166.1277. The minimum and the maximum liquidity for the firms listed was 0.4273and 278 respectively. Its standard deviation was 80.80263 which indicated that liquidity varied across the firms listed under NSE.

The overall mean of firm size measured in terms of the log of total assets was 22.6168. The minimum and the maximum firm size for the firms listed under NSE was 0.4085 and 34.1 respectively. Its standard deviation was 3.794153 which indicated that firm size varied across the firms.

Finally, the overall mean of firm performance measured in terms of Return of Equity (ROE) was 17.66. The minimum and the maximum firm performance for the firms listed was 2 and 34 respectively. Its standard deviation was 9.291 which indicated that firm performance differed across the firms.

4.3 Trend Analysis

Figure 4.1 indicates that the general trend of control activities measured in terms of the number of surprise checks per year was varying across the 65 firms listed under NSE.
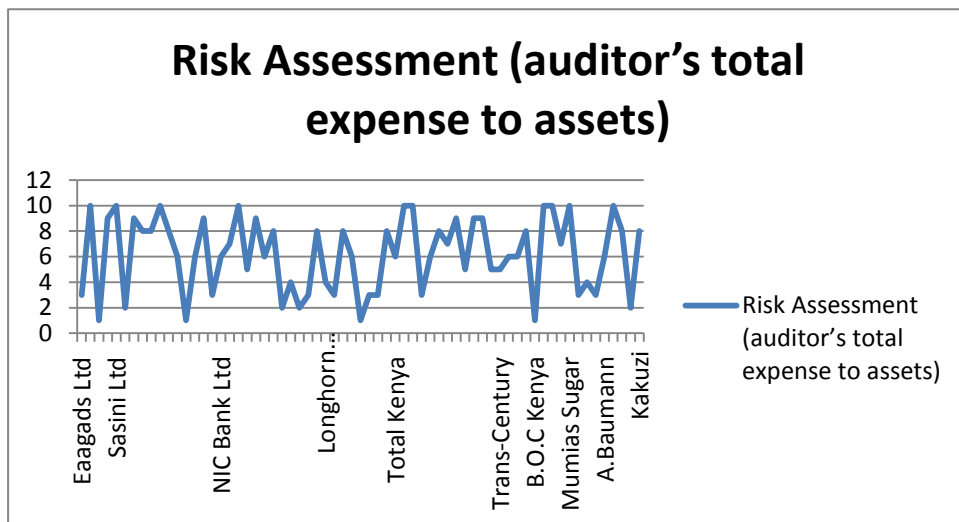
Figure 4.1: Trend line of control activities
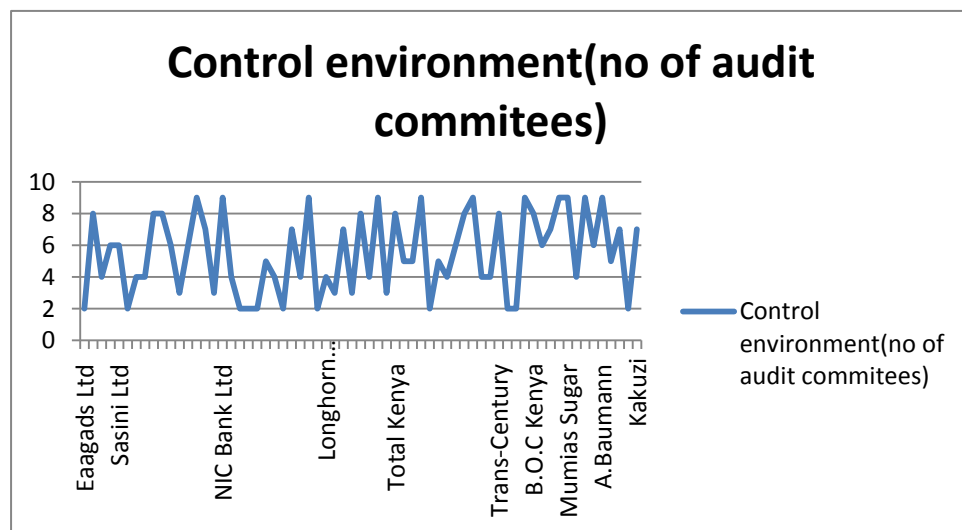
 Source: Research Findings

Figure 4.2 indicated the risk assessment of firms listed under NSE. The trend line shows that risk assessment measured in terms of auditor's total expense to total assets was varying across all the firms.

**Figure 4.2: Trend line of risk assessment across firms**

Source: Research Findings

Figure 4.3 shows the information and communication invested by the firms listed under NSE and measured in terms of natural logs. The trend line shows that information and communication varied across all the firms.

Figure 4.3 Trend line of information and communication invested by firms
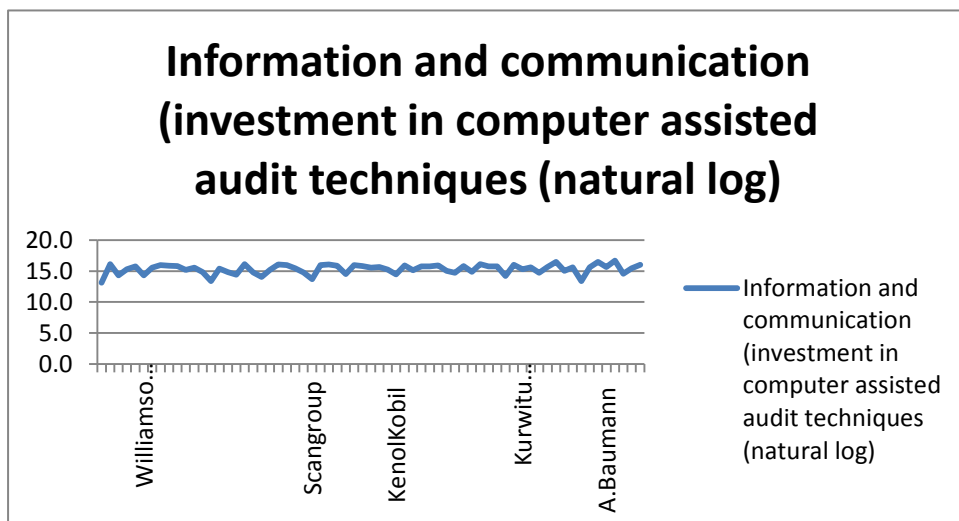
Source: Research Findings

Figure 4.4 indicated monitoring measured in terms of the size of the audit department of the firms listed. The trend line showed that monitoring was varying across all the firms.

Figure 4.4 Trend line – of monitoring across firms
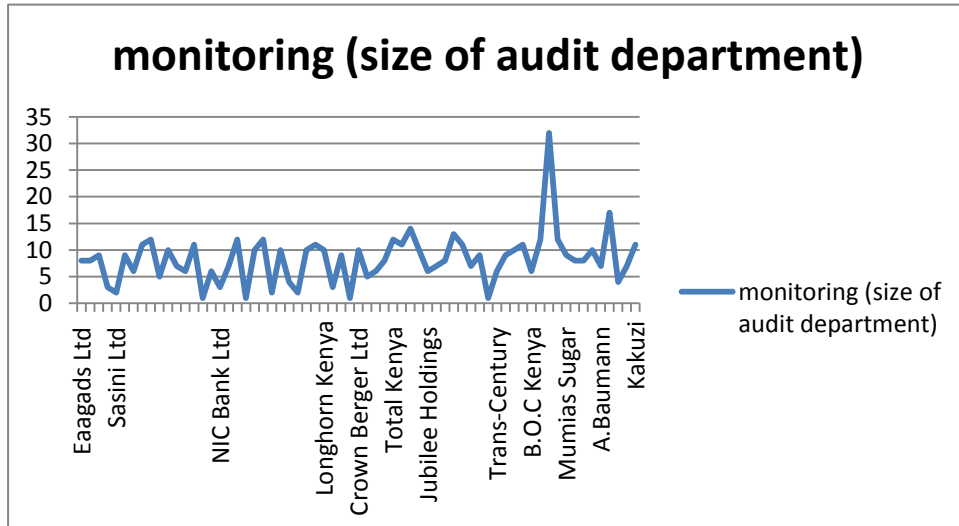
Source: Research Findings

Figure 4.5 indicated control activities measured in terms of the number of surprise checks of the firms listed. The trend line showed that control activities were varying across all the firms.

Figure 4.5 Trend line –Control activities across the firms
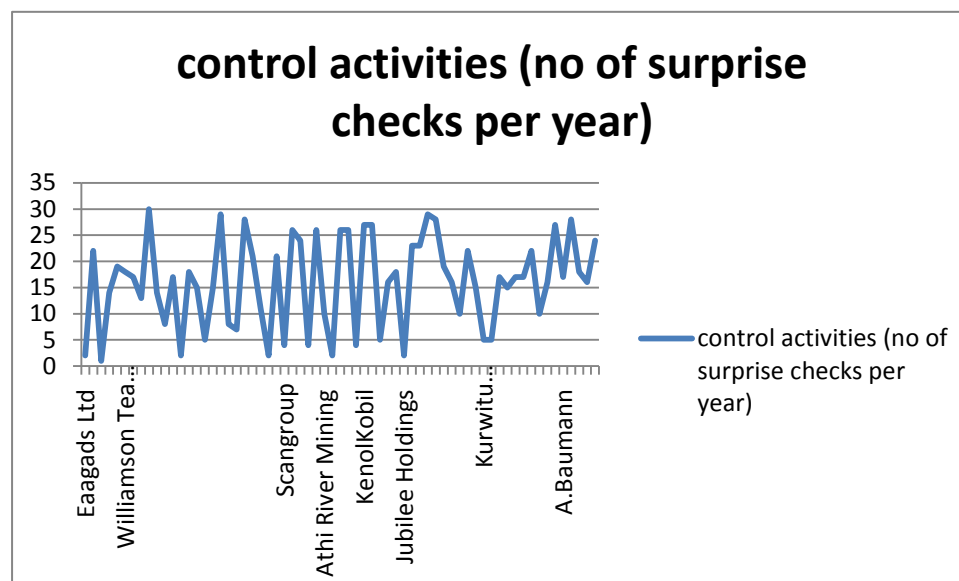
Source: Research Findings

Figure 4.6 indicated leverage of the firms listed. The trend line showed that leverage was varying across all the firms.

Figure 4.6 Trend line –Leverage of the firms listed

leverage TL/TA
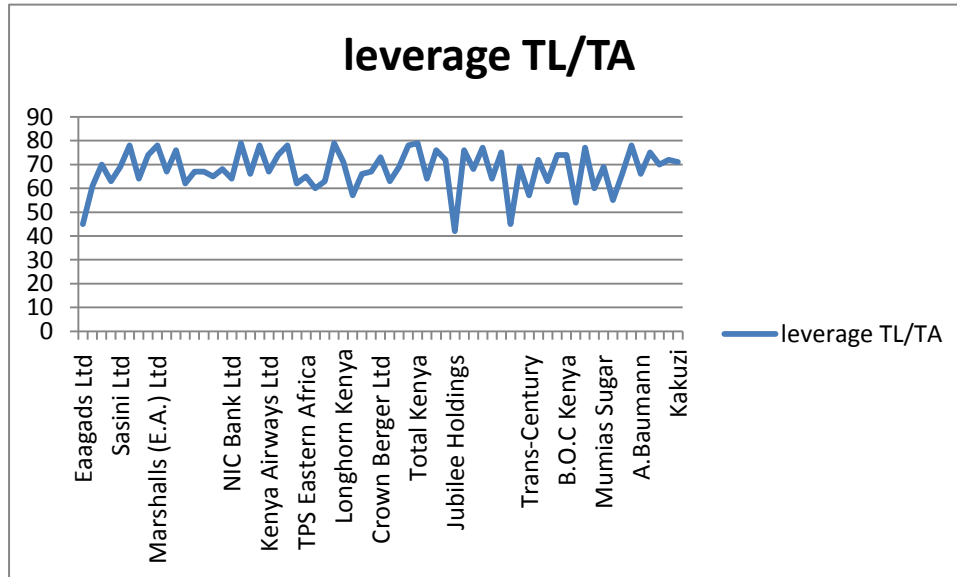
Source: Research Findings

Figure 4.7 indicated liquidity of the firms listed under NSE. The trend line showed that liquidity was varying across all the firms.

Figure 4.7 Trend line - liquidity of the firms listed under NSE

liquidity (current ratio)
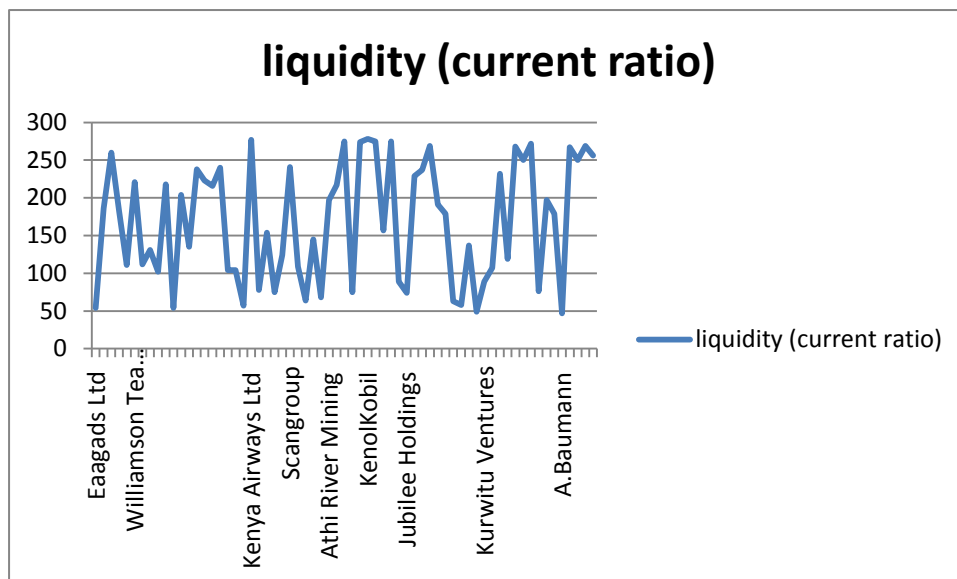
Source: Research Findings

Figure 4.8 indicated firm size measured in terms of log of total assets. The trend line showed that firm size was varying across all the firms listed.

Figure 4.8 Trend line – of firm size
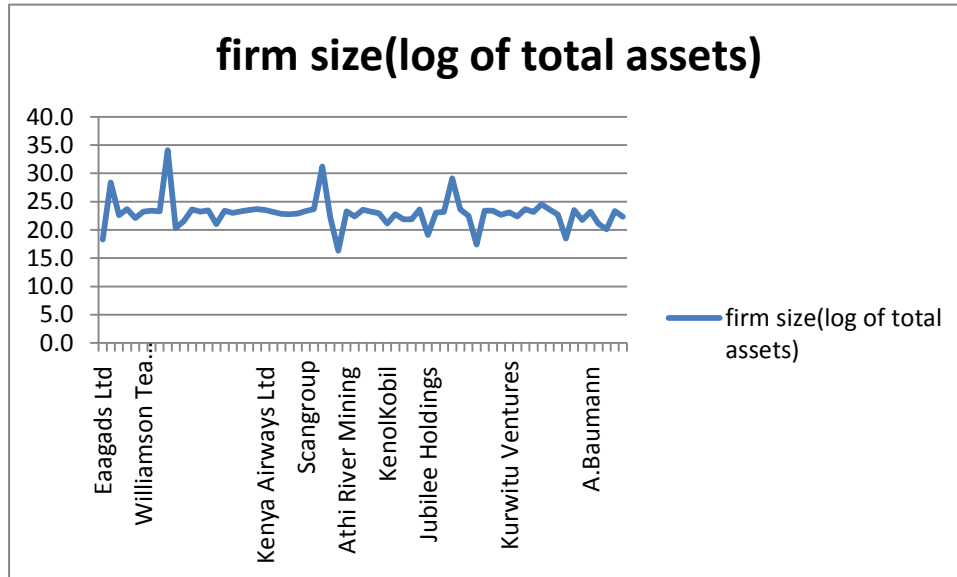
Source: Research Findings

Figure 4.9 indicated financial performance of firms listed and measured in terms of ROE. The trend line showed that ROE was varying across all the firms.
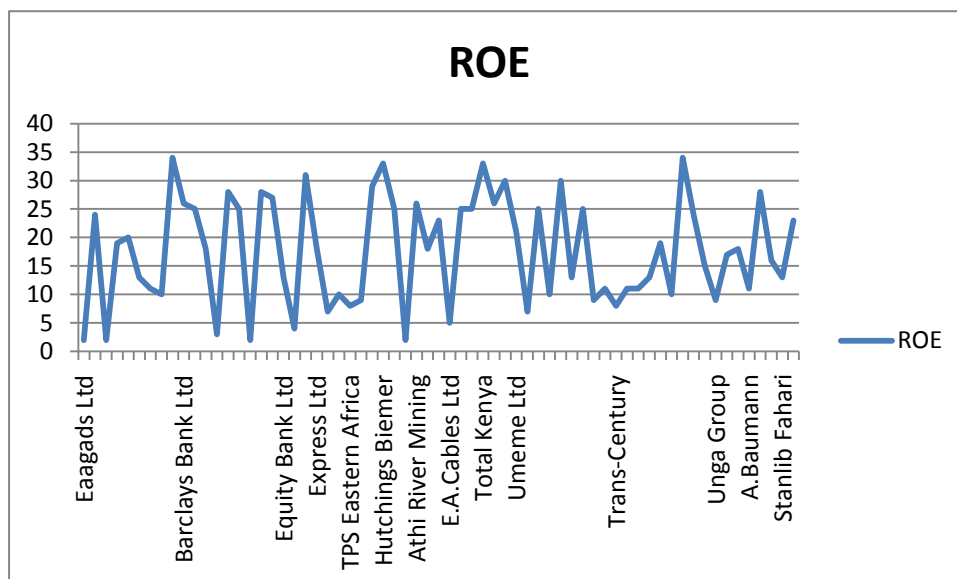
Figure 4.9 Trend line – financial performance measured in terms of ROE

Source: Research Findings

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4.4 Inferential statistics

4.5 Correlation Analysis

The study sought to establish the association among the study variables. The results are as presented in Table 4.2

Table 4.2: Correlation matrix of research variables

Variable		Control environment	Risk Assessment	control activities	Information & communication	monitoring	leverage	liquidity	firm size	ROE
Control environment	Pearson Correlation	1	0.16	.319**	.280*	0.169	.250*	.327*	.296*	.406**
	Sig. (2-tailed)		0.201	0.009	0.023	0.174	0.043	0.007	0.016	0.001
Risk Assessment	Pearson Correlation	0.16	1	.267*	.374**	.293*	0.24	0.149	.260*	.450**
	Sig. (2-tailed)	0.201		0.03	0.002	0.017	0.053	0.234	0.035	0.000
control activities	Pearson Correlation	.319**	.267*	1	.314*	.254*	.383**	.270*	.358**	.445**
	Sig. (2-tailed)	0.009	0.03		0.01	0.039	0.002	0.029	0.003	0.000
Information and communication	Pearson Correlation	.280*	.374**	.314*	1	.312*	.744**	0.228	.743**	.413**
	Sig. (2-tailed)	0.023	0.002	0.01		0.011	0	0.065	0	0.001
monitoring (size of audit department)	Pearson Correlation	0.169	.293*	.254*	.312*	1	.301*	0.232	.300*	.429**
	Sig. (2-tailed)	0.174	0.017	0.039	0.011		0.014	0.06	0.014	0.000
leverage TL/TA	Pearson	.250*	0.24	.383**	.744**	.301*	1	.391*	.733**	.459**

	Correlation Sig. (2-tailed)	0.043	0.053	0.002	0	0.014		0.001	0	0.000
liquidity	Pearson Correlation	.327**	0.149	.270*	0.228	0.232	.391**	1	0.239	.427**
	Sig. (2-tailed)	0.007	0.234	0.029	0.065	0.06	0.001		0.053	0.000
firm size	Pearson Correlation	.296*	.260*	.358**	.743**	.300*	.733**	0.239	1	.410**
	Sig. (2-tailed)	0.016	0.035	0.003	0	0.014	0	0.053		0.001
ROE	Pearson Correlation	.406**	.450**	.445**	.413**	.429**	.459**	.427*	.410**	1
	Sig. (2-tailed)	0.001	0	0	0.001	0	0	0	0.001	

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

The results in Table 4.2 indicated that control environment and firm performance are positively and significantly related (r=.406, p=0.001). An increase in the number of audit committees will increase firm performance by .406 units. Results indicated that risk assessment (r= .450, p=0.000) is significantly and positively related to firm performance. Efficient risk assessment will increase firm performance by .450 units. Further, result findings showed that control activities, information and communication, monitoring, leverage, liquidity and firm size are significantly and positively related to firm performance (r=.445, p=0.000, r=.413, p=0.001, r= .429, p=0.000, r=.459, p=0.000, r=.427, p=0.000 and r=. 410, p=0.001) respectively. An increase in either of the above variables will lead to increase of firm performance by the units indicated against them.

4.6 Model summary

The results presented in table 4.3 present the fitness of model used of the regression model in explaining the study phenomena. Control environment, risk assessment, control activities, information and communication, monitoring, leverage, liquidity and firm size were found to be satisfactory variables in explaining performance of firms listed under NSE. This is supported by coefficient of determination also known as the R square of 59.9%.

Table 4.3 Model Fitness

Indicator	Coefficient
R	0.774
R Square	0.599

Source: Research Findings

This means that control environment, risk assessment, control activities, information and communication, monitoring, leverage, liquidity and firm size explains 59.9% of the variations in the dependent variable which is the firm performance measured in terms of ROE. This means that we have other factors which affect firm performance that are not included in the model. The results further indicate that the model applied to link the relationship of the variables was satisfactory.

4.7 Analysis of Variance

Table 4.4 provides the results on the analysis of the variance (ANOVA). This was to establish whether there was any significant difference among the variables means. Independent variables were explored to determine whether their existed any significance difference with the dependent variable (performance of firms listed under NSE).

Table 4.4 Analysis of Variance

Indicator	Sum of Squares	df	Mean Square	F	Sig.
Regression	3309.940	8	413.743	10.462	.000
Residual	2214.613	56	39.547		
Total	5524.554	64			

Source: Research Findings

The results indicate that the overall model was statistically significant. Further, the results imply that the independent variables are good predictors of firm performance. This was supported by an F statistic of 10.462 and the reported p value (0.000) which was less than the conventional 0.05 significance level. Therefore, the result findings from the ANOVA showed that there exist a significant difference between the independent variables and the dependent variable.

4.8 Regression of Coefficients

Regression of coefficients results in table 4.5 shows that control environment and firm performance are positively and significantly related (r=0.755, p=0.032), risk assessment and firm performance are positively and significantly related (r= 0.85, p=0.008), control activities and firm performance are positively and significantly related (r=0.123, p=0.047), information and communication (r=1.226, p=0.024), monitoring (r=0.328, p=0.044), leverage (r=0.181, p=0.027), liquidity (r=0.027, p=0.021) and firm size (r=0.550,p=0.022) were also positively and significantly related to firm performance.

Table 4.5 Regression of Coefficients

Variable	B	Std. Error	Beta	t	Sig.
(Constant)	-44.734	17.631		-2.537	0.014
Control environment (number of audit committees)	0.755	0.344	0.202	2.194	0.032
Risk Assessment (auditor's total expense to assets)	0.850	0.306	0.263	2.773	0.008
control activities (no of surprise checks per year)	0.123	0.105	0.113	1.169	0.047
Information and communication (investment in computer assisted audit techniques (natural log)	1.226	1.233	0.103	0.995	0.024
Monitoring (size of audit department)	0.328	0.187	0.164	1.756	0.044
leverage TL/TA	0.181	0.117	0.163	1.547	0.027
liquidity (current ratio)	0.027	0.011	0.23	2.385	0.021
firm size(log of total assets)	0.550	0.35	0.154	1.571	0.022

Source: Research Findings

Results findings show that there is a positive and significant relationship between control environment, risk assessment, control activities, information and communication, monitoring, leverage, liquidity and firm size and firm performance. These results show that an increase in the unit change of control environment would result to an increase in firm performance by 0.755units. These results also show that an increase in the unit change of risk assessment would result to an increase in firm performance by 0.850 units, increase in control activities will result to an increase in firm performance by 0.123 units, information and communication increase will increase firm performance by 1.226 units, an increase of monitoring will increase firm performance by 0.328 units, leverage will increase firm performance by 0.181 units. Further, these results show that an increase in the unit change of liquidity would result to an increase in firm performance by 0.027 units while a unit increase in firm size will result to 0.550 units increase in firm performance.

Thus, the optimal model for the study is;

Firm performance= -44.734+ 0.755control environment+0.850risk assessment+0.123control activities+ 1.226 information and communication+0.328monitoring+0.181leverage+0.027liquidity+0.550firm size.

4.9 Interpretation of the Findings.

The findings confirms that, independent variables affects the financial performance of listed firms in Kenya. Also, it revealed that most firms had a positive and significant relationship between control environment, risk assessment, control activities, information and communication, monitoring, leverage, liquidity and firm size and firm performance. It was also established that the management of these listed firms had put in place mechanisms for mitigation of critical risks that may result from fraud. These clearly demonstrate an indication that most listed firms observed risk assessment procedures as functionality of internal control Vis a Vis better financial performance.

The effect of information and communication on financial performance of listed firms was found to be a common practice among all the firms; it was implemented in most of their activities and functions through established procedures. It was found that listed firms monitored their activities as part of the functionality of internal control systems, however some of the

 Listed firms failed to assign their responsibilities in a timely manner and this negatively affected their financial performance i.e. An increase in the number of audit committees will increase firm performance by .406 units. These results show that an increase in the unit change of independent variable would result to an almost an equal increase in firms Financial performance.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter addressed the summary of the findings, the conclusions and the recommendations. This was done in line with the objectives of the study.

5.2 Summary

The purpose of this study was to establish the effect of internal control on the financial performance of firms listed on the Nairobi security exchange. The study objectives were; to establish the influence control environment, risk assessment, control activities, information and communication, monitoring, leverage, liquidity and firm size on firm performance.

This study adopted a descriptive research design. This study used secondary data obtained from NSE statements. Data analysis was done using Statistical Package for Social Sciences (SPSS Version 20.0) software. The study adopted a regression analysis. Regression analysis was used to come up with the model expressing the relationship between the independent variables and the dependent variable (Financial Performance of Firms listed on the Nairobi Security Exchange).

The findings revealed that control environment, risk assessment, control activities, information and communication, monitoring, leverage, liquidity and firm size were found to be satisfactory variables in explaining performance of firms listed under NSE. This is supported by coefficient of determination also known as the R square of 59.9%.

Results showed that control environment and firm performance are positively and significantly related (r=0.755, p=0.032), risk assessment and firm performance are positively and significantly related (r= 0.85, p=0.008), control activities and firm performance are positively and significantly related (r=0.123, p=0.047), information and communication (r=1.226, p=0.024), monitoring (r=0.328, p=0.044), leverage (r=0.181, p=0.027), liquidity (r=0.027, p=0.021) and firm size (r=0.550,p=0.022) were also positively and significantly related to firm performance. This implies that a unit increase in any of the above variable will lead to a unit increase in firm performance.

5.3 Conclusion

The conclusions of this study were informed by the findings based on each study objective and also findings of other similar studies. Each determinant was reviewed and a conclusion provided which covers both theory and practice. The purpose of this study was to establish the effect of internal control on the financial performance of firms listed on the Nairobi security exchange.

Based on the findings the study concluded that control environment, risk assessment, control activities, information and communication, monitoring, leverage, liquidity and firm size have positive relationship with firm performance.

5.4 Recommendations for Policy and Practice

Based on the findings and conclusions of the study, the following recommendations were made; Internal control system has been found to have a statistically positive effect on performance of firms listed under NSE hence there is need for the firms to improve on their internal control system by adopting a modern integrated financial reporting system. The system should be updated regularly so that it will be able to detect ever changing fraudsters' techniques.

The study also found that there are some other determinants that affect financial performance of firms. Financial firms should also consider favorable level of liquidity, firm size and leverage since they were found to influence firm performance.

5.5 Limitations of the Study

The reliability of the results depends on the accuracy of the data collected from the financial statements. Some financial firms listed under NSE were not willing to disclose some information regarding their financial performance. Tedious procedures followed to get permission to carry research from the firms.

5.6 Recommendation for Further Research.

Due to the turbulent nature of the business environment a similar study should be conducted after a period of Five years in order to investigate whether there are any areas of commonalities or unique factors that might have arisen because the level of technology is very dynamic and keeps on changing. It would be interesting to conduct a study besides the determinants of internal control I have stated in my study vis a vis internal audits and their implications on financial performance; this will shed more light on the appropriate model to choose when implementing better internal control systems that enhance financial performance of firms.

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APPENDICES

Appendix I: Firms Listed at NSE as at 31 December 2015.

Nos	Company Name	Nos	Company Name
1	Eaagads Ltd	33	Longhorn Kenya Ltd
2	Kapchorua Tea Co.Ltd	34	Atlas Development and Support Services
3	Limuru Tea Co. Ltd	35	Athi River Mining
4	Rea Vipingo Plantations Ltd	36	Bamburi Cement Ltd
5	Sasini Ltd	37	Crown Berger Ltd
6	Williamson Tea Kenya Ltd	38	E.A.Cables Ltd
7	Car and General (K) Ltd	39	E.A.Portland Cement Ltd
8	Sameer Africa Ltd	0	KenolKobil Ltd
9	Marshalls (E.A.) Ltd	41	Total Kenya Ltd
10	Barclays Bank Ltd	42	KenGen Ltd
11	CFC Stanbic Holdings Ltd	43	Kenya Power & Lighting Co Ltd
12	I&M Holdings Ltd	44	Umeme Ltd
13	Diamond Trust Bank Kenya Ltd	45	Jubilee Holdings Ltd
14	Housing Finance Co Ltd	46	Liberty Kenya Holdings Ltd
15	Kenya Commercial Bank Ltd	47	British-American Investments Company (Kenya) Ltd
16	National Bank of Kenya Ltd	48	CIC Insurance Group Ltd
17	NIC Bank Ltd	49	Olympia Capital Holdings ltd
18	Standard Chartered Bank Ltd	50	Centum Investment Co Ltd
19	The Co-operative Bank of Kenya Ltd	51	Trans-Century Ltd
20	Equity Bank Ltd	52	Pan Africa Insurance Holdings Ltd
21	Kenya Airways Ltd	53	Kenya Re-Insurance Corporation Ltd

22	Nation Media Group	54	Home Afrika Ltd
23	Express Ltd	55	Kurwitu Ventures
24	Standard Group Ltd	56	Nairobi Securities Exchange Ltd
25	TPS Eastern Africa (Serena) Ltd	57	B.O.C Kenya Ltd
26	Scangroup Ltd	58	British American Tobacco Kenya Ltd
27	Uchumi Supermarket Ltd	59	Carbacid Investments Ltd
28	Hutchings Biemer Ltd	60	East African Breweries Ltd
29	Mumias Sugar Co. Ltd	61	A.Baumann CO Ltd
30	Unga Group Ltd	62	Flame Tree Group Holdings Ltd
31	Eveready East Africa Ltd	63	Safaricom Ltd
32	Kenya Orchards Ltd	64	Stanlib Fahari I-REIT
		65	Kakuzi Ltd.

Source: Nairobi Securities Exchange. (2015)

Appendix III: Data Collection Form

Firm	Control environment (no of audit committees)	Risk Assessment (auditor's total expense to assets)	control activities (no of surprise checks per year)	Information and communication (investment in computer assisted audit techniques (natural log)	monitoring (size of audit department)	leverage TL/TA	liquidity (current ratio)	firm size(log of total assets)	Return on Equity (ROE)